Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

IDE
Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Programa

Lunes, 3 de abril de 1989

19:00 - 21:00 Recepción ofrecida por la Agencia Alemana de Cooperación Técnica (GTZ)

Martes, 4 de abril de 1989

09:00 - 09:30 Registro y Arreglos Administrativos (Sesión 1a)

09:30 - 09:45 Apertura del Seminario (Sesión 1b)
Sres. H. Rosenthal (CEPAL)
R. Brunn (GTZ)
P. Knight (Banco Mundial)

09:45 - 10:30 Estabilización y Ajuste Macroeconómico en América Latina (Sesión 2)
Conferencista:
Sr. A. Bianchi (CEPAL)

10:30 - 11:15 Discusión

11:15 - 11:30 *Café o Té*

11:30 - 12:15 Las Finanzas Públicas: Lecciones de la Experiencia Internacional (Sesión 3)
Conferencista:
Sr. J. Linn (Banco Mundial)

12:15 - 13:00 Discusión

13:00 - 15:00 *Almuerzo*

15:00 - 15:45 La Macroeconomía del Déficit del Sector Público (Sesión 4)
Conferencista:
Sr. V. Corbo (Banco Mundial)

15:45 - 16:00 *Café o Té*

16:00 - 18:00 Discusión

Miércoles, 5 de abril de 1989

09:30 - 10:15 Finanzas Públicas y Cambios Exógenos: Medición y Análisis de las Causas del Déficit Público en América Latina (Sesión 5)
Conferencista:
Sr. J. Marshall (CEPAL)

10:15 - 11:00 Discusión

11:00 - 11:15 ***Café o Té***

11:15 - 12:00 Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos (Sesión 6)
Conferencista:
Sr. J. A. Morales (GTZ)

12:00 - 13:00 Discusión

13:00 - 15:00 ***Almuerzo***

15:00 - 16:00 Gasto Público y Ajuste Macroeconómico (Sesión 7)
Conferencistas:
Sres. R. W. Velloso (SEPLAN)
G. Strassert (GTZ)

6:00 - 16:15 ***Café o Té***

16:15 - 18:00 Discusión

Jueves, 6 de abril de 1989

09:30 - 10:15 Diseño y Administración de la Reforma Tributaria (Sesión 8)
Conferencista:
Sr. E. Aninat (Consultor, Banco Mundial)

10:15 - 11:00 Discusión

11:00 - 11:15 ***Café o Té***

11:15 - 12:15 Reforma de las Empresas Públicas (Sesión 9)
Conferencista:
Sr. E. Chaparro (Banco Mundial)
Comentarios:
Sr. Zenk (*KFW* - Banco de Desarrollo del Gobierno Alemán)
Sra. N. Barry (Banco Mundial)

12:15 - 13:00 Discusión

13:00 - 15:00 ***Almuerzo***

15:00 - 15:45 Deuda Externa y Política Fiscal en América Latina (Sesión 10)
Conferencista:
Sr. J. Silva-Herzog (Centro de Estudios Monetarios para América Latina, *CEMLA*)

15:45 - 16:00 ***Café oTé***

16:00 - 18:00 Discusión

18:00 - 18:15 Evaluación del Seminario (Sesión 11)

21:00 Comida de Clausura ofrecida por el Banco Mundial

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

CEPAL

IDE

Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Visión General del Seminario

El Seminario se centra en aspectos fiscales y del sector público, dentro del contexto de los programas de estabilización y ajuste estructural. Los temas a ser discutidos se han agrupado en nueve sesiones. Las dos primeras sirven de introducción general. En ellas se presenta una actualización de la evolución macroeconómica de América Latina y una visión general de las experiencias mundiales en relación con el sector público y las políticas fiscales. Las tres sesiones siguientes discuten los aspectos analíticos y los problemas prácticos que se encuentran cuando se trata de integrar la política fiscal con el programa macroeconómico general y la estrategia de desarrollo, considerando las restricciones impuestas por el medio ambiente socioeconómico y político. Dado este marco general, las sesiones que siguen se centran en tres temas específicos de las finanzas públicas: la reestructuración del gasto, la reforma tributaria y la reforma del sector de las empresas públicas. En la última sesión se analizan aspectos de la relación entre el problema de la deuda externa y las dificultades fiscales en los países de la región. La actividad de cierre es la evaluación del seminario.

Contenido de las Sesiones

Sesión 1
"Registro y Arreglos Administrativos"

Sesión 2
"Estabilización y Ajuste Macroeconómico en América Latina"

En esta sesión se presentará un análisis actualizado del proceso general de ajuste macroeconómico en América Latina, y una comparación de las experiencias de diferentes países en términos del desempeño económico y de las políticas de estabilización y ajuste estructural que se han aplicado. También se discutirá brevemente el marco de las condiciones internacionales que influyen sobre la evolución macroeconómica de los países de la región.

Sesión 3
"Las Finanzas Públicas: Lecciones de la Experiencia Internacional"

En esta sesión se ofrecerá una visión general del sector público, del desempeño fiscal y de las políticas fiscales en los países en desarrollo, con una referencia especial al caso de América Latina. Basándose en las conclusiones del Informe del Desarrollo Mundial 1988, se resaltarán los aspectos principales relacionados con el papel de las finanzas públicas en el desarrollo, la política fiscal en los procesos de estabilización y ajuste, la reforma impositiva, el mejoramiento de la asignación del gasto público, decentralización y la reforma del sector de las empresas públicas.

Sesión 4
"La Macroeconomía del Déficit del Sector Público"

Las discusiones se centrarán en aspectos analíticos del diseño de programas macroeconómicos consistentes, enfatizando el componente fiscal y en particular el impacto del déficit del sector público. Un aspecto central es cómo articular la política fiscal con los objetivos de crecimiento, inflación y balanza de pagos, dadas las restricciones de financiamiento. Las medidas fiscales interactúan con las políticas monetarias de tasa de interés, de tasa de cambio y comercio internacional y de precios y salarios, generando diferentes efectos sobre la oferta y demandas agregadas y afectando la manera en que el ahorro e inversión domésticos se ajustan en línea con las restricciones de financiamiento externo. La presentación abarcará principalmente los aspectos estáticos y dinámicos y los mecanismos de transmisión macroeconómica de corto y largo plazo relacionados con diferentes modalidades de financiamiento del déficit fiscal.

Sesión 5
"Finanzas Públicas y Cambios Exógenos: Medición y Análisis de las Causas del Déficit Público en América Latina"

En esta sesión se discutirán aspectos metodológicos y empíricos relacionados con la definición y medición de los diferentes conceptos del déficit fiscal (requerimientos de financiamiento del sector público, déficit operacional, déficit primario y déficit cuasi-fiscal). Se realizará un análisis de las causas de los déficits fiscales adecuadamente definidos y medidos. Algunos de los principales factores causales considerados en el análisis incluyen cambios en el marco económico internacional, en las políticas macroeconómicas nacionales y en la posición fiscal. Se presentarán ejemplos de algunos países en la región.

Sesión 6
"Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos"

Esta presentación discutirá los aspectos metodológicos, institucionales y políticos relacionados con la articulación entre la estrategia de desarrollo y las finanzas públicas. A nivel técnico, esta sesión se centrará en los mecanismos para asegurar la consistencia entre los planes de desarrollo y la política fiscal. A nivel institucional y político, la presentación analizará las alternativas para asegurar la coordinación entre el trabajo de los diferentes ministerios y para desarrollar el consenso político necesario para asegurar la ejecución del programa.

Sesión 7
"Gasto Público y Ajuste Macroeconómico"

La discusión se centrará en los criterios y las experiencias relacionadas con el diseño y la ejecución de un programa de gasto público en línea con los objetivos económicos y sociales más generales. En particular, se enfatizará el papel de la inversión pública en el proceso de crecimiento y desarrollo. Se incluirán aspectos tales como la asignación de recursos entre sectores, medidas para incrementar la eficiencia del sector público, la programación del gasto público, la decentralización de los servicios públicos y la orientación del gasto hacia grupos de bajos ingresos. También se discutirá la experiencia de la República Federal Alemana (RFA) en la ejecución de programas de ajuste estructural. Esta presentación se centrará en los aspectos políticos y administrativos, en las condiciones legislativas y en el impacto económico de la descentralización del gasto público en la RFA, tratando de extraer conclusiones aplicables en América Latina.

Sesión 8
"Diseño y Administración de la Reforma Tributaria

En esta sesión se analizarán aspectos metodológicos y operacionales relacionados con el diseño, ejecución y administración de reformas globales del sistema tributario. Después de evaluar los objetivos de la reforma tributaria, se analizarán diferentes tipos de impuestos considerando el rendimiento fiscal, la generación de distorsiones, el impacto distributivo y su influencia sobre el proceso de ahorro e inversión. En particular, se discutirá el impuesto al valor agregado y a los ingresos. La sesión concluirá con una presentación de diferentes aspectos institucionales y políticos que influyen sobre la implementación, administración y permanencia en el tiempo de la reforma impositiva.

Sesión 9
"Reforma de las Empresas Públicas"

La presentación se centrará en dos aspectos relacionados. Por una parte, se discutirán políticas y mecanismos de operación que permitan alcanzar una administración más eficiente del núcleo central de empresas públicas. Por otra, se analizarán los criterios a ser utilizados para definir las empresas que deben salir del ámbito público, y los problemas principales que aparecen en el proceso de liquidación o privatización de dichas empresas. Se discutirán experiencias relevantes en América Latina y fuera de la región.

Sesión 10
"Deuda Externa y Política Fiscal en América Latina"

En varios países de América Latina el problema de la deuda externa se ha desarrollado paralelamente a la crisis fiscal. El sector público ha tenido que ajustarse al múltiple impacto de la reducción de flujos netos de financiamiento, incrementos en el servicio de la deuda pública debido a mayores tasas de interés, caídas en la recaudación fiscal ligada a productos de exportación y la absorpción de la deuda privada por el sector público. En esta sesión se discutirá el problema de la doble transferencia de recursos ocasionada por el pago de la deuda: la transferencia externa, a través de la balanza de pagos y la transferencia interna, a través del presupuesto público. Asimismo, se dará énfasis al impacto macroeconómico de las diferentes maneras de generar esa doble transferencia. En relación con la transferencia externa, se discutirán alternativas para aliviar su impacto, mejorar su secuencia temporal y, eventualmente, revertir la dirección del flujo de recursos.

Evaluación

La última actividad será lá evaluación del seminario. El *Formulario de Evaluación para Seminarios de Alto Nivel* se ha incluído en la Sesión 11. Gentilmente se le solicita a los participantes que los completen y se los entreguen al Sr. Eugenio Díaz-Bonilla, Consultor del Banco Mundial.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Martes, 4 de abril de 1989

Sesión 1 - Parte A

09:00 - 09:30

Tópico: Registro y Arreglos Administrativos

Conferencistas: Sras. M. Montt
L. Arraigada (CEPAL)

Martes, 4 de abril de 1989

Sesión 1 - Parte B

09:30 - 09:45

Tópico: Apertura del Seminario

Conferencistas: Sres. H. Rosenthal (CEPAL)
R. Brunn (GTZ)
P. Knight (Banco Mundial)

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Martes, 4 de abril de 1989

Sesión 2

09:45 - 10:30

Tópico: Estabilización y Ajuste Macroeconómico en América Latina

Conferencista: Sr. A. Bianchi (CEPAL)

Lectura Requerida: 1. El documento del Sr. Bianchi se distribuira por separado.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Martes, 4 de abril de 1989

Sesión 3

11:30 - 12:15

Tópico: Las Finanzas Públicas: Lecciones de la Experiencia Internacional

Conferencista: Sr. J. Linn (Banco Mundial)

Lectura Requerida:

1. **Banco Mundial,** Informe del Desarrollo Mundial 1988, Sumario, Capítulos 2 y 9, Washington, D.C. 1988.*
2. **Barandiarán,** Edgardo, "The Adjustment Process in Latin America's Highly Indebted Countries", World Bank, Washington, D.C., March, 1988.
3. **Edwards,** Sebastian, "The Debt Crisis and Economic Adjustment in Latin America", UCLA Working Paper Number 531, University of California, Los Angeles, California, November, 1988.

* Distribuído por separado.

The Adjustment Process in Latin America's Highly Indebted Countries

by

Edgardo Barandiarán

Office of the Vice President
Latin America and Caribbean Region
World Bank
March 1988

The views expressed are those of the author and do not necessarily represent those of the Bank. In preparing this paper, the author received valuable assistance from many colleagues in the Bank. B. Ballassa, P. Miovic, C. Quijano, N. Roger, M. Selowsky, and J. Sokol offered many useful observations and comments on the draft. They are not responsible for the views expressed or for any errors.

THE ADJUSTMENT PROCESS IN LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES

TABLE OF CONTENTS

I. OVERVIEW.....1

II. STABILITY AND MACROECONOMIC MANAGEMENT.....9

1. Correction of External Imbalances.....9
2. Reduction of Public Sector Deficits.....17
3. Control of Inflation.....24

III. RECOVERY AND STRUCTURAL REFORMS.....28

1. The Foreign Exchange Regime.....32
2. Export Growth and the Trade Regime.....36
3. Resource Reallocation: Public and Private Sectors.....38

IV. INVESTMENT, SAVINGS AND STEADY GROWTH.....43

1. Behavior of Investment.....44
2. Behavior of National Savings.....48
3. Foreign Savings and Debt Relief.....51
4. Potential for Growth.....55

STATISTICAL APPENDIX

CHAPTER I

OVERVIEW

Origins of economic crisis

The world economic recession had extended to most developing countries by 1982. Its beginnings can be traced back to 1979 when the response of industrial countries to the second oil price shock precipitated sharp increases in interest rates, deterioration in the terms of trade for non-oil exporters, and stagnation of world trade. The new external conditions prompted adjustment in Latin America and the Caribbean, especially after the virtual cessation of voluntary external financing in August 1982. But domestic policies and institutions were heading most of the region towards economic instability and stagnation anyway. Incongruous economic policies and institutions were prolonged only by a huge build-up of external debt in the 1975-81 period. The debt was contracted at low or negative real interest rates, and it became a severe burden when international interest rates increased.

Although income losses from declining terms of trade and the debt burden precipitated and aggravated adjustment, and notwithstanding considerable diversity of experience among countries, it is the view of this paper that the course of events had been set by unsustainable domestic policies and institutions in Latin America's highly indebted countries.

Coping With the Crisis: External Finance and Adjustment

Servicing the large external debt and adjusting to new external conditions have been at the forefront of economic policy-making by Latin American governments and of portfolio management by Latin America's creditors since 1982. The governments of debtor countries hoped to minimize their adjustment efforts by negotiating some debt relief with existing creditors and obtaining new credits from multilateral institutions. Creditor banks, hoping debtor countries' adjustment efforts would permit them to service the debt, initially supported negotiations with debtors.

Some combination of additional external finance and adjustment has been the traditional approach to dealing with unsustainable expansions in domestic demand or unfavorable real shocks. Two characteristics rendered the experience of highly indebted countries exceptional, however. First, the existing huge debt severely limited the prospect of new external financing. The conflicting interests of existing creditors, in particular the substitutability of multilateral institutions for commercial banks, became crucial issues and special procedures were required to accommodate all interests. Thus, debt relief in the form of concessions by commercial banks to adjust debt service payments to debtor countries' capacity to pay, as well as financing from multilateral institutions, became part of the complex process of supporting debtor countries. (This process is analyzed in E. Barandiaran, "The Restructuring of External Debt: The Experience of Latin America's Highly Indebted Countries", LACVP, World Bank, April 1988).

Second, there was increasing recognition that fundamental reform of economic policies and institutions would be crucial to restoring the conditions for steady growth. Traditional stabilization programs focused largely on control of domestic demand through monetary and fiscal policies,

and sometimes devaluations and expenditure-switching policies. However, these policies were not enough, given recurrent macroeconomic instability, and low export growth and allocative inefficiency prompted by biased systems of incentives. The focus of adjustment shifted increasingly from stabilisation to broader economic reform.

The Report

This Report looks at the direction of and prospects for adjustment in Latin America's highly indebted countries. Adjustment efforts are reviewed in terms of objectives that have to be successively achieved: correction of external and internal imbalances as a basis for macroeconomic stability; recovery of output, income and consumption to their potential level; and, finally, renewal of capital accumulation as the basis for steady economic growth. The next three chapters examine the experience with adjustment over the last five years. They deal, respectively, with stability (Chapter II), recovery (Chapter III) and steady growth (Chapter IV), a division that is a useful simplification of complex adjustment objectives.

The Report highlights the significance of macroeconomic stability for the recovery of potential output, as well as the importance of this recovery for capital accumulation and steady growth.

Macroeconomic Stability

The initial macroeconomic imbalances caused contraction of the highly indebted countries' output below potential levels. Since 1984, the region has been slowly recovering towards potential output, but is still well below it. The regional figures, however, conceal large differences across countries: in a few, recovery has been sustained; in others, recovery has

faltered; and in still others, sustained recovery has not yet started. The variations in performance are explained partly by the differential effect of changes in external conditions, but mainly by differences in sustaining and deepening adjustment efforts.

Macroeconomic stability is a prerequisite for sustained recovery. Under normal circumstances, macroeconomic stability would not preclude the possibility of running current account and public sector deficits. These would be accommodated by domestic and international financial markets without causing interest rates to increase and real exchange rates to appreciate to unsustainable levels. In the highly indebted countries, however, given the need to service public debt, particularly external debt, macroeconomic stability depends on an ability to generate adequate surpluses net of interest payments in the public sector and the current account of the balance of payments. Specifically, in these countries, macroeconomic stability amounts to properly balancing the surplus in the public sector and the service of its debt.

Generation of a surplus in the current account (net of interest payments on public sector's external debt) has not been accompanied by a similar surplus in the public sector (net of interest payments). Even worse, in some countries, the public sector is not generating any surplus with which to pay interest on its domestic and external debt. Balance has so far been possible because of the credit from multilateral institutions, borrowing from the domestic banking systems and accumulation of arrears with national and foreign creditors. However, failure to attain a sustainable balance is being reflected in high domestic interest rates and accelerated inflation.

Further adjustments in public expenditures and revenues are needed, but it is unlikely they will generate a surplus large enough to fully pay

interest on public sector's total debt. This financial crisis of the public sector remains the key constraint to macroeconomic stability in the highly indebted countries where recovery has faltered or has yet to start.

Recovery

Sustained recovery of output is being constrained by insufficient foreign exchange for imports. Favorable external shocks could help, but the immediate outlook for the world economy is not promising, and any improvement will have to be regarded as temporary for some time. The supply of foreign exchange could also increase as a result of long-term agreements with foreign creditors involving a significant reduction in interest payments (and therefore in the present value of the cost of servicing the debt). While the probability of this type of agreement is increasing, it is unlikely that any debtor country can negotiate such reduction during 1988.

The need for sustained increase in the availability of foreign exchange still calls for reforms in the domestic structure of incentives for the production of tradable goods and services. Most governments have been relying mainly on exchange rate policy to offset the costs of policies and regulations that hinder allocative efficiency in both the public and private sectors. However, it is increasingly difficult to maintain this strategy because real wages are hardly increasing after the large decline that followed the correction of the external imbalances. Reform of the trade regimes and institutions determining the structure of incentives to the private sector are badly needed, especially because of the additional distortions introduced at the beginning of the debt crisis.

Notwithstanding the importance of reforming trade policy and deregulating financial and other domestic markets, the additional effort has

to center first on restructuring the public sector. That is, on adjusting its size to sustainable levels of taxation, improving the allocation of public spending, reducing the cost of collecting taxes, and enhancing allocative and technical efficiency in state-owned enterprises.

In assessing the prospects for reforming economic policies and institutions, it should be noted that the crisis has imposed a heavy burden on the political systems of Latin America. Adjustment programs have generally failed to gain enough political support and they have therefore been implemented poorly. Ultimately, the programs did not take sufficient account of the complexity of the economic crisis, which was reflected in the conflicts that the political systems were supposed to solve. Latin America's political systems have generally lacked the capacity to regulate conflicting interests without precipitating crises of legitimacy or participation. While in some countries the economic adjustment prompted political crisis, in other countries economic adjustment was eventually sacrificed to relative political stability.

In most highly indebted countries, even where macroeconomic stability has been slipping, there has been a growing consensus of the need to restructure the public sector, reform the trade regime, and deregulate domestic markets. This consensus has still to be reflected in an economic program with broad political support, however. Where consensus on some economic objectives has existed, its transformation into a program has been slowed by changes in political regimes. Further political changes are expected in the next two years, with important elections upcoming in most countries. Electoral confrontation will likely weaken political support for economic reform, and strong leadership will then be crucial for quickly implementing them after elections.

The governments of the early 1980s, especially the new civilian governments, were committed to accelerate economic recovery, but they had to learn the limits of their economic powers while trying to cope with the crisis. The governments of the late 1980s will need to learn from their predecessors' experience.

Steady Growth

Steady growth of potential and actual output, and consequently of income and consumption, depends on the rate of capital accumulation and overall allocative efficiency. Favorable developments in the world economy can temporarily increase the rate of capital accumulation, income and consumption, but the foundation of capital accumulation and allocative efficiency is the structure of incentives provided by economic policies and regulations. Not surprisingly, projections for the highly indebted countries have consistently shown that they could generally resume satisfactory rates of economic growth (perhaps as high as the rates of 1950-81, and in some countries even higher), while gradually reducing debt service burdens. In addition to reasonable expectations regarding the evolution of the world economy and the path of resource transfer to foreign creditors, these projections assume the recovery of the investment ratios of 1950-81. The crucial assumption is that policy reforms are undertaken that significantly increase both the national savings ratios and the marginal productivity of capital, although to levels well below those of the fast-growing Asian developing economies.

These projections are indicative of the potential for high growth of Latin America's highly indebted countries. The realization of this potential depends on sustaining and deepening reform of economic policies and

institutions. In addition to a growing world economy, at least a retiming of the resource transfer to foreign creditors will be necessary to facilitate recovery and resumption of steady growth. Economic reform without this contribution of the rest of the world may turn out to be politically impossible.

CHAPTER II

STABILITY AND MACROECONOMIC MANAGEMENT

In the early 1980s, the immediate objective of adjustment programs in the highly indebted countries of Latin America and the Caribbean (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico, Peru, Uruguay and Venezuela) was to correct the external and internal imbalances between expenditures and incomes. (For measures of the initial imbalances, see Table II.1). Typically, the domestic counterpart of the external imbalance was an unsustainable deficit of the public sector. Correction of the initial external imbalances was, however, accompanied by slow and uneven pace in reducing public sector deficits. In addition, the correction of the external imbalance and the persistent deficit of the public sector resulted in higher rates of inflation. In some countries, the acceleration of inflation has required drastic anti-inflationary programs. Thus, the pursuit of macroeconomic stability is discussed in this chapter under three headings: correction of the external imbalance, reduction of the public sector deficit, and control of inflation.

1. Correction of External Imbalances

The current account deficit of Latin American and Caribbean countries peaked in 1981-82 after a sustained increase since 1975 (see Table A.1 in the Statistical Appendix). The changing world financial markets of

TABLE II.1. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Initial Macroeconomic Imbalances (percentages)

	1980	1981	1982
Argentina			
- Domestic Absorption/GDP 1/	103.6	101.9	93.6
- Current Account Balance/GDP 3/	-3.6	-3.8	-4.1
- Public Sector Deficit/GDP 2/	8.5	14.5	16.8
Bolivia			
- Domestic Absorption/GDP 1/	94.8	101.1	94.8
- Domestic Absorption/GDP 2/	94.8	100.6	95.7
- Current Account Balance/GDP 3/	-1.1	-7.7	-3.6
- Public Sector Deficit/GDP 2/	9.1	7.6	15.9
Brazil			
- Domestic Absorption/GDP 1/	102.2	98.6	98.9
- Domestic Absorption/GDP 2/	102.2	100.4	100.7
- Current Account Balance/GDP 3/	-5.4	-4.4	-6.1
- Public Sector Deficit/GDP 2/	12.2	3.9	5.9
Chile			
- Domestic Absorption/GDP 1/	106.7	112.9	99.8
- Domestic Absorption/GDP 2/	104.2	116.3	101.9
- Current Account Balance/GDP 3/	-7.1	-14.6	-9.5
- Public Sector Deficit/GDP 2/	-6.1	-0.8	3.4
Colombia			
- Domestic Absorption/GDP 1/	99.6	102.5	105.1
- Domestic Absorption/GDP 2/	99.6	104.6	106.2
- Current Account Balance/GDP 3/	1.5	1.8	2.4
- Public Sector Deficit/GDP 2/	2.5	3.3	7.6
Costa Rica			
- Domestic Absorption/GDP 1/	116.3	97.6	93.8
- Domestic Absorption/GDP 2/	116.3	104.9	97.1
- Current Account Balance/GDP 3/	-13.7	-15.7	-10.4
- Public Sector Deficit/GDP 2/	7.8	4.6	2.9
Ecuador			
- Domestic Absorption/GDP 1/	116.1	106.6	108.8
- Domestic Absorption/GDP 2/	100.2	99.8	102.3
- Current Account Balance/GDP 3/	-5.5	-7.2	-8.6
- Public Sector Deficit/GDP 2/	4.5	5.8	7.5
Jamaica			
- Domestic Absorption/GDP 1/	102.6	103.3	104.3
- Domestic Absorption/GDP 2/	102.1	113.2	111.6
- Current Account Balance/GDP 3/	-3.8	-6.8	-7.5
- Public Sector Deficit/GDP 2/	16.6	15.6	14.1
Mexico			
- Domestic Absorption/GDP 1/	105.2	107.6	99.8
- Domestic Absorption/GDP 2/	105.9	102.5	96.9
- Current Account Balance/GDP 3/	-4.4	-5.8	-3.7
- Public Sector Deficit/GDP 2/	7.9	14.7	17.7

1/ Using data in constant prices.
2/ Using data in current prices.
3/ Using data in current U.S. dollars.

TABLE II.1. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES (CONT'D.)
Initial Macroeconomic Imbalances (percentages)

	1980	1981	1982
Peru			
- Domestic Absorption/GDP 1/	99.7	104.0	103.2
- Domestic Absorption/GDP 2/	100.6	106.9	106.3
- Current Account Balance/GDP 3/	-9.5	-6.8	-6.3
- Public Sector Deficit/GDP 2/	4.7	8.4	9.3
Uruguay			
- Domestic Absorption/GDP 1/	106.1	105.2	104.3
- Domestic Absorption/GDP 2/	105.8	103.9	103.1
- Current Account Balance/GDP 3/	-6.8	-4.2	-4.9
- Public Sector Deficit/GDP 2/	-9.5	2.3	10.0
Venezuela			
- Domestic Absorption/GDP 1/	128.4	129.0	131.4
- Domestic Absorption/GDP 2/	91.6	94.2	103.1
- Current Account Balance/GDP 3/	8.0	6.1	-6.2
- Public Sector Deficit/GDP 2/	-0.6	9.3	10.4

1/ Using data in constant prices.
2/ Using data in current prices.
3/ Using data in current U.S. dollars.

the 1970s had financed that deficit, as well as some accumulation of reserves by central banks (at least until 1980) and, in some countries, significant acquisiton of foreign assets by residents. The region's external imbalance was evident in increasing current account deficits and, in Argentina, Mexico and Venezuela, increasing capital flight. The growing current account deficit was a reflection of the exploding growth of imports and the trade deficit until 1981. Corrective measures taken by Argentina and Brazil during 1981 resulted in some contraction of the region's overall imports and a small trade surplus in 1982.

In 1983-84, the region's balance of payments drastically changed in response to new external conditions (deterioration in the terms of trade, increase in interest rates and sharp reduction in external financing) and corrective policies by most countries. The current account deficit quickly declined and was almost eliminated by 1984, while drawdowns of reserves financed an important part of the declining deficit in 1982-84. Generalized capital flight stopped by 1983. The composition of the current account paralleled the behavior of the deficit: the sharp contraction in imports and the moderate increase in export earnings resulted in a large trade surplus, enough to finance a large fraction of the increased interest payments. Thus, by 1984, the highly indebted countries had succeeded in correcting their external imbalances, except for Colombia, where the initial imbalance was lower and correction could be postponed until late 1984.

As noted, the correction of the external imbalance in 1983-84 was achieved by sharply contracting imports (see Table II.2). It is not an exaggeration to say the imbalance was totally corrected by contracting imports, by as much as 50 percent in some countries. This, however, conceals the remarkable increase in the volume of exports in some countries, which has

TABLE II.2 LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
External Adjustment (changes between annual averages of 1980-81 and indicated years)

	Change in Current Account Deficit	Change in Interest Payments	Change in Trade Surplus	Change in Exports GNFS	Change in Imports GNFS	Change in Merchandise Exports		Change in Merchandise Imports	
						Quantity	Price	Quantity	Price
Argentina									
1983-84									
- US$ Billion	-2.3	2.4	5.3	-1.4	-6.8	----	----	----	----
- Percentage	----	78.9	----	-12.4	-50.0	18.0	-22.7	-46.6	-10.9
1985-87									
- US$ Billion	-2.2	1.5	4.3	-2.0	-6.3	----	----	----	----
- Percentage	----	47.8	----	-17.8	-47.2	9.0	-32.6	-52.4	-9.2
Bolivia									
1983-84									
- US$ Billion	-0.1	0.0	0.1	-0.2	-0.3	----	----	----	----
- Percentage	----	0.0	----	-17.7	-32.7	-17.4	-3.5	-32.1	-7.1
1985-87									
- US$ Billion	0.2	-0.1	-0.2	-0.3	-0.2	----	----	----	----
- Percentage	----	-50.4	----	-34.2	-18.5	-29.7	-16.7	-18.7	0.8
Brazil									
1983-84									
- US$ Billion	-0.9	0.0	11.5	2.5	-8.9	----	----	----	----
- Percentage	----	0.0	----	10.7	-32.5	10.0	-1.4	-21.1	-20.2
1985-87									
- US$ Billion	-10.1	-1.0	12.3	2.9	-9.4	----	----	----	----
- Percentage	----	-10.6	----	12.1	-34.3	21.3	4.2	-17.6	-25.9
Chile									
1983-84									
- US$ Billion	-1.8	0.4	2.5	-0.9	-3.4	----	----	----	----
- Percentage	----	32.8	----	-16.9	-43.7	17.5	-25.6	-35.5	-19.7
1985-87									
- US$ Billion	-2.2	0.4	2.9	-0.3	-3.2	----	----	----	----
- Percentage	----	37.0	----	-5.9	-41.3	39.3	-25.9	-32.2	-13.7
Colombia									
1983-84									
- US$ Billion	1.6	0.3	-0.8	-0.7	0.0	----	----	----	----
- Percentage	----	50.3	----	-14.7	0.2	-1.4	-7.9	58.0	-12.0
1985-87									
- US$ Billion	-0.6	0.6	1.5	0.7	-0.7	----	----	----	----
- Percentage	----	101.0	----	14.6	-12.3	57.9	-7.4	-3.5	-12.2
Costa Rica									
1983-84									
- US$ Billion	-0.3	0.2	0.3	0.0	-0.3	----	----	----	----
- Percentage	----	152.7	----	1.5	-19.0	-7.4	-5.8	-18.6	-6.3
1985-87									
- US$ Billion	-0.3	0.1	0.3	0.2	-0.1	----	----	----	----
- Percentage	----	95.9	----	15.1	-5.0	13.4	-13.0	-13.5	-7.1

TABLE II.2 LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES (CONT'D.)
External Adjustment (changes between annual averages of 1980-81 and indicated years)

	Change in Current Account Deficit	Change in Interest Payments	Change in Trade Surplus	Change in Exports GNFS	Change in Imports GNFS	Change in Merchandise Exports		Change in Merchandise Imports	
						Quantity	Price	Quantity	Price
Ecuador									
1983-84									
- US$ Billion	-0.6	0.2	1.0	-0.1	-1.1	----	----	----	----
- Percentage	----	37.9	----	-4.2	-36.8	15.1	-14.4	-37.3	3.3
1985-87									
- US$ Billion	-0.3	0.3	0.6	-0.1	-0.7	----	----	----	----
- Percentage	----	53.0	----	-3.6	-22.7	36.3	-31.4	-13.7	-8.3
Jamaica									
1983-84									
- US$ Billion	0.1	0.1	-0.1	-0.1	-0.1	----	----	----	----
- Percentage	----	33.6	----	-16.6	-5.1	-19.6	-11.5	3.9	-9.9
1985-87									
- US$ Billion	0.0	0.1	0.1	-0.1	-0.2	----	----	----	----
- Percentage	----	64.5	----	-5.7	-12.8	-24.1	-7.2	13.1	-14.2
Mexico									
1983-84									
- US$ Billion	-15.6	2.7	18.1	2.4	-15.7	----	----	----	----
- Percentage	----	34.6	----	9.1	-52.1	61.9	-9.6	-49.3	-4.8
1985-87									
- US$ Billion	-12.7	0.8	12.2	-0.3	-12.5	----	----	----	----
- Percentage	----	16.3	----	-1.3	-41.7	58.5	-19.8	-46.2	1.6
Peru									
1983-84									
- US$ Billion	-0.4	0.2	0.5	-0.8	-1.1	----	----	----	----
- Percentage	----	22.3	----	-12.8	-24.2	-1.8	-12.1	-21.7	-4.7
1985-87									
- US$ Billion	-0.2	-0.1	0.2	-0.8	-0.9	----	----	----	----
- Percentage	----	-9.7	----	-17.8	-26.9	-4.1	-21.7	-16.9	-16.7
Uruguay									
1983-84									
- US$ Billion	-0.4	0.2	0.7	-0.3	-1.6	----	----	----	----
- Percentage	----	166.1	----	-16.9	-46.2	5.8	-14.6	-56.9	-8.2
1985-87									
- US$ Billion	-0.5	NA	0.7	-0.2	-0.9	----	----	----	----
- Percentage	----	NA	----	-11.2	-43.6	8.9	-17.1	-42.2	-11.3
Venezuela									
1983-84									
- US$ Billion	-0.6	1.3	2.4	-4.1	-6.6	----	----	----	----
- Percentage	----	59.1	----	-26.2	-46.9	-2.1	-2.6	-38.5	36.6
1985-87									
- US$ Billion	4.1	1.1	-2.4	-8.7	-6.6	----	----	----	----
- Percentage	----	53.5	----	-42.7	-39.6	-6.7	23.2	-21.5	85.3

been offset by a decline in export prices (see also Table II.2). Correction involved a combination of expenditure-reducing and expenditure-switching policies, but the mix of instruments greatly differed across countries. Each country's policies were shaped by its particular conditions, rather than by some common approach supported by the multilateral financial institutions.

The reduction in domestic expenditures was prompted first by the income losses from the deterioration in the terms of trade and the increase in international interest rates. The income losses directly affected the public sector because state companies produced a large share of the main export commodities, because export taxes were an important source of current revenues, and because it had contracted most of the country's external debt (or assumed its service through exchange rate guarantees and bail-outs of private companies). The reduction in domestic expenditure was also precipitated by the virtual cessation of voluntary external financing. In the highly indebted countries, this cessation was at least as important as the income losses from the external shocks. In particular, the lack of voluntary foreign credit affected the sectors which had been expanding, which in most countries was the public sector. Thus, the adjustment of public sector, with the immediate purpose of reducing its deficit, became fundamental to correcting the external imbalance in the highly indebted countries (Chile was a clear exception).

The switch in domestic expenditures from tradable to non-tradable goods and services played a key role in restoring external balance. A gross indicator of the contribution of expenditure-switching at the regional level is the very low elasticity of output to the change in imports between 1981 and 1984: while the volume of imports declined 35 percent, total output declined only 1 percent. This low elasticity--a common feature of adjustment

in most countries--reflected the sharp increase of imports during the late 1970s rather than a long-run value. (As shown in Table A.1 of the Statistical Appendix, in 1970-79 output increased at an annual rate of 5.7 percent while the volume of imports increased at an annual rate of 6.8 percent). The main policy instruments used to switch expenditure were devaluations of national currencies accompanied by multiple exchange rates and specific restrictions on imports (see section III.2).

Table II.2 summarizes the changes in the current account balance and the trade balance between 1980-81 and the two subperiods 1983-84 and 1985-87. Despite further changes in the world economy in 1985-87, especially the sharp decline in the price of oil in late 1985, the same patterns described above for 1983-84 held for the last three years. Thus, both the current account deficit and the trade surplus have maintained their 1983-84 levels or slightly improved, and the changes with respect to 1980-81 continue to be explained largely by the contraction in imports rather than by increases in exports. However, in Brazil and Costa Rica, the increase in export returns explains part of the improvement in the trade surplus. In 1985-87, the average terms of trade improved only for Brazil, while they further declined in most countries, especially oil-exporters.1/ In 1985-87, the current account balance of the highly indebted countries benefited little from the decline in international interest rates, mainly because of the additional indebtedness of 1982-84. By early 1988, only Mexico and Venezuela have a current account surplus, while Bolivia and Peru are the only countries with a trade deficit.

1/ In late 1987 the terms of trade improved for Chile and Jamaica. The Statistical Appendix shows estimates of the terms of trade for each country.

2. Reduction of Public Sector Deficits

Data shortcomings do not allow conclusive judgements about public sector finances, but it appears that Chile and Venezuela were the only highly indebted countries in which the public sector had a surplus before the economic crisis (see the country tables in the Statistical Appendix).2/ In Chile the reforms of the 1970s involved a large restructuring of the public sector. In Venezuela oil revenues produced a surplus in the years immediately after each of the two oil price shocks (first in 1974-76 and then in 1979-81). In other countries, public sector deficits varied from less than 2 percent of GDP in 1980-81 (Uruguay) to more than 6 percent of GDP in 1980-81 (Argentina, Bolivia, Brazil, Jamaica and Mexico).

In countries where public sectors had to cope with the income losses from external shocks and with the halt in commercial banks' external financing, their adjustment became a crucial issue. Public sector deficits

---

2/ How the public sector is defined has become an important analytical issue. The traditional definition refers only to government (all levels) because of its monopoly over taxation. Since current and future tax revenues can be used to finance the production and distribution of all goods and services, an alternative definition is to focus on the goods and services whose production or distribution can be financed by taxes in accordance with prevailing rules. According to this alternative definition, the public sector also includes all enterprises, financial intermediaries and state agencies that can supplement their revenues from the market with assistance provided by the government through regular channels. This idea underlies Kornai's definition of the soft budget constraint and his views on the fate of chronic loss-makers in Hungary (see J. Kornai, "The Hungarian Reform Process," Journal of Economic Literature, December 1986). Because of lack of appropriate data, the definition of public sector in this paper and in most current empirical work is usually limited to government and non-financial public enterprises.

did not, however, contract in the initial years of adjustment, when the external imbalance was being corrected. Even worse, in some countries initially the deficits rose because the loss in revenues from export earnings and the increase in interest payments were not offset by adjustments in other expenditures and revenues.3/ These patterns have been observed in most highly indebted countries, although in Brazil and Venezuela the deficit declined in 1983-84 and later increased over the 1980-81 level (see Table II.3).4/

Actual adjustment of public sector expenditures and revenues was influenced by conditions in each country, but there were some general patterns. The main sources of additional revenues were increased taxation

---

3/ Even in Chile and Venezuela, the public sector deficits became significant. The Chilean public sector was directly affected by changes in external conditions because of the income loss from the decline in the price of copper, and indirectly by the decline in revenue that resulted from the fall in private sector expenditures, particularly in imports. In Chile, the reduction in domestic expenditures was largely a problem of the private sector, which had to adjust to the income loss from the increase in international interest rates and to the halt in external financing. Adjustment of the private sector was facilitated by the financial assistance the government provided to cope with the huge domestic and external debt. Contrary to the experience of other Latin American countries, where governments crowded out the private sector to avoid a significant reduction in public sector expenditure, the Chilean government mobilized domestic and foreign resources to bail out the private sector from its debt crisis.

4/ The data in Table II.3 refer to the non-financial public sector, that is, they exclude the fiscal expenditures of central banks. For a cross-country comparison these quasi-fiscal expenditures and other adjustments need to be included, in particular to correct for the effect of inflation on domestic interest payments. The Statistical Appendix shows estimates of central bank losses for a few countries.

TABLE II.3. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Public finances (changes between annual averages of 1980-81 and indicated years; in percentage points of GDP) 1/

	Change in Deficit 3/	Change in Current Revenue	Change in Current Expenditure	Change in Interest Payments 2/	Change in Capital Expediture
Argentina					
1983-84	2.9	-0.6	3.3	-3.0	-1.0
1985-87	-5.7	4.1	0.8	-0.7	-2.3
Bolivia					
1983-84	12.5	-3.9	6.1	NA	-2.7
1985-87	-0.5	0.0	0.7	NA	-3.2
Brazil					
1983-84	-1.8	-3.6	-0.2	3.2	-3.7
1985	4.1	-4.9	4.2	8.9	-3.7
Chile					
1983-84	7.2	-1.7	5.9	2.8	0.2
1985-86	5.7	-1.3	2.2	2.6	2.1
Colombia					
1983-84	4.0	4.6	3.3	1.4	4.9
1985-87	-1.1	7.9	3.6	2.8	3.6
Costa Rica					
1983-84	-2.9	4.0	1.7	0.4	-0.5
1985-86	-3.5	8.5	0.7	0.1	-0.8
Ecuador					
1983-84	-4.7	0.8	-1.1	1.2	-2.9
1985-86	-6.2	1.1	-1.9	1.7	-3.1
Jamaica					
1983-84	-5.1	-0.9	-1.6	2.2	-5.2
1985-87	-14.3	8.7	-5.5	NA	-4.4
Mexico					
1983-84	-2.4	5.5	7.3	7.8	-4.2
1985-86	2.1	2.9	10.5	10.3	-5.5
Peru					
1983-84	3.8	-0.7	1.9	1.2	0.8
1985-86	-2.1	-3.4	-3.7	-0.4	-2.1
Uruguay					
1983-84	8.8	-3.1	2.5	NA	-1.9
1985-86	1.3	-2.0	1.4	NA	-2.1
Venezuela					
1983-84	-0.5	-3.7	0.9	1.3	-4.5
1985-86	1.6	-4.4	0.8	1.6	-3.0

1/ Only the non-financial public sector. In some countries, the deficit and interest payments may be substantially underestimated because the accounts of the Central Bank are not included.
2/ In some countries, the interest payments on internal debt have increased because of the acceleration in inflation.
3/ The change in the deficit may not always be equal to the sum of the current and capital expenditures minus the current revenue due to the inclusion of other items (i.e., capital revenue and grants).

and increased prices of the many goods and services produced by the public sector. Higher taxation of export earnings was common in countries where devaluation of the national currency was significant (a common practice was to exact part of the private windfall gain on traditional exports).5/ In the initial years of adjustment, increases in public sector prices were limited by strong political opposition, and quite often governments were forced to reverse them. Typically, the additional revenues were viewed as temporary, in the sense that new taxes and price increases were reluctantly accepted only to cope with the emergency. The adjustments of public expenditures largely involved cuts in real wages and delays in investment projects. They were also viewed as temporary because they did not derive from any long-term planning of the public sector's provision of goods and services.

The financing of deficits also required changes once external financing was limited to the new money agreed to under restructuring exercises with creditor banks and to credit from multilateral institutions. In adjusting revenues and expenditures, governments shifted part of the burden to the private sector. This shift was compounded by a reliance on the inflation tax and borrowing at controlled interest rates. The increased revenue from the inflation tax was maintained by an accelerated rate of inflation, since the increases in inflation and real interest rates eroded

---

5/ However, devaluations generally had a negative effect on public finances because the subsequent increase in interest payments more than compensated the additional revenue from public enterprises' net exports and export taxes.

the base of the inflation tax.6/ Eventually inflation became so high that it created its own pressures to reduce the public sector deficit, as happened in Argentina and Bolivia in mid-1985 and Mexico in late 1987. (For a gross measure of the revenue from the inflation tax, see Table II.4).

Deposit interest rates have been adjusted often to take into account high inflation and the need to bring financial resources back into the controlled banking system. The public sector has received most of the additional resources of the banking system through increased reserve requirements, forced investments in public sector bonds and loans at controlled interest rates. In general, the public sector has had to pay higher domestic interest rates than before the crisis, although real rates of interest were negative in the initial years of adjustment. To compensate the banking system for providing credit to the public sector at low interest rates, the rates on private sector loans were freed. Their real values have exploded (see the estimates of real interest rates in the country tables of the Statistical Appendix). Where loan interest rates continued to be controlled, the private sector turned more and more to non-regulated financial markets, and interest rates in these markets also exploded.

The distribution of the burden between the public and private sectors became a crucial issue in the viability of the adjustment process. The failure of governments to establish and maintain credibility for their new economic policies meant additional capital flight, and they eventually

---

6/ The acceleration of inflation negatively affected the collection of taxes in several countries, increasing the public sector deficit. However, this effect was significant only in the few countries where inflation quickly reached high levels and tax collection was not indexed.

TABLE II.4. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Inflation

	1965-80	1980	1981	1982	1983	1984	1985	1986	1987
Part A: Inflation Rates (average annual rates for 1965-80 and annual rates for 1980-87; percentages)									
Venezuela	8.7	19.5	11.0	7.3	7.0	18.3	5.7	12.3	36.1
Costa Rica	11.2	17.8	65.1	81.7	10.7	17.3	11.1	15.4	13.6
Ecuador	11.3	14.5	17.9	24.3	52.5	25.1	24.4	27.3	30.6
Jamaica	12.6	28.6	4.8	7.0	16.7	31.2	23.9	10.4	5.6
Mexico	13.2	29.8	28.7	98.8	80.8	59.2	63.7	105.7	143.6
Bolivia	15.7	23.9	25.2	296.5	328.5	2177.2	8170.5	66.0	16.5
Colombia	17.5	26.5	27.6	24.1	16.5	18.3	22.3	21.0	24.7
Peru	20.5	69.7	72.7	72.9	125.1	111.5	158.3	62.9	104.8
Brazil	31.6	95.3	91.2	97.9	172.8	203.3	228.0	58.6	396.0
Uruguay	57.7	42.8	29.4	20.5	51.5	66.1	83.0	76.6	57.4
Argentina	78.5	57.6	131.2	209.7	433.7	688.0	385.4	81.9	178.3
Chile	129.9	31.2	9.5	20.7	23.5	23.0	26.4	17.4	22.9
Part B: Revenue from the Inflation Tax (as percent of GDP)									
Venezuela		3.6	2.0	1.4	1.5	4.1	1.4	2.9	NA
Costa Rica		2.9	10.3	12.3	1.8	3.0	1.8	2.5	NA
Ecuador		2.4	3.6	3.9	8.1	3.5	3.2	NA	NA
Jamaica		4.1	0.7	1.0	2.3	4.6	3.6	1.4	NA
Mexico		2.9	2.7	8.7	5.5	3.8	3.9	6.2	7.5
Colombia		3.2	3.3	2.8	1.9	2.1	2.4	2.6	NA
Peru		5.8	6.6	5.6	8.6	6.7	11.6	6.6	NA
Brazil		7.7	6.7	6.4	8.6	9.1	10.6	3.9	22.4
Uruguay		3.5	2.3	1.9	4.6	4.2	5.4	4.9	NA
Argentina		6.4	8.9	14.8	29.6	34.3	16.9	4.8	9.1
Chile		1.9	0.6	1.3	1.4	1.3	1.3	0.8	NA

had to increase domestic interest rates further to control capital flight. Both the capital flight and the high interest rates in turn had a depressing effect on private demand for goods and services. Independently of other reasons for restructuring the public sector, its size has become unsustainable in most countries: taxation cannot provide sufficient funds for public expenditures.7/ In several countries, the failure of attempts to reduce the public sector has become a source of uncertainty that constrains the private sector.

In all highly indebted countries, the public sector has run large deficits during the last five years. Only in a few countries (Chile, Colombia, Uruguay and lately Mexico) are the deficits being quickly reduced to sustainable levels. The financing of these deficits has been reflected in a growing internal debt which the public sector has to service jointly with the huge external debt (the public sector had either contracted most of the country's external debt or assumed its service in the early years of the crisis). The external debt crisis is actually a reflection of the financial crisis of the public sector: even in countries where the trade surplus could be large enough to service the external debt, the public sector is not able to generate an operational surplus to pay interest on its total (internal and external) debt which continues to grow.

7/ Even if efficiency in the public sector increased significantly, its current size could hardly be financed without increasing the present or future tax burden.

3. Control of Inflation

Increased inflation rates were a main feature of the initial stage of adjustment. As shown in Table II.4, the higher levels of inflation were not limited to those countries that traditionally experienced inflation, but were quite general. The increase in inflation in Latin America, at a time when it was declining in the industrial countries, was largely attributable to the price adjustments, especially the devaluation of the national currency and the increases in controlled prices. Once-and-for-all adjustments of prices of tradable goods and services were sometimes followed by compensatory increases in wages and prices of some non-tradable goods and services, which further increased inflation. After an initial devaluation was successful in changing the structure of relative prices (especially in depreciating the real exchange rate), the nominal exchange rate was de facto indexed to actual inflation to maintain the new structure of relative prices. The new exchange rate policy reinforced the downward inflexibility of nominal prices, and changes in relative prices had to come from differential increases in nominal prices.

Even if inflation generally increased as a result of initial price adjustments, the subsequent behavior of inflation differed across countries, depending mainly on differences in the inflation tax needed to finance public sector deficits and in inflationary inertia.8/ In countries with a tradition

---

8/ The role of inertia in inflationary processes has become a major analytical issue. Inertia amounts to an inflationary bias in the process of changing relative prices: these changes are possible only through differential increases in nominal prices. By definition, the larger inflationary inertia is, the larger the inflationary effect of any change in relative prices. Individual expectations are the ultimate cause of inflationary inertia, but its significance is determined by the institutions and contracts that protect real incomes in chronic-inflation countries.

of low or moderate inflation, inflation rates declined after the initial increase, although not always to previous levels (the situation in Colombia, Costa Rica, Ecuador, Jamaica and Venezuela). However, there were exceptions: in Bolivia, Mexico and Peru, control of inflation turned out to be a major issue.9/ The case of Bolivia was exceptional: the inflation tax needed to finance the public sector deficit, which sharply increased pari passu with the service of the external debt, was so high that hyperinflation became a reality by mid-1985. The Bolivian government undertook a drastic anti-inflationary program based on strict control of the public sector deficit while leaving prices free. Inflation has fallen to an annual rate of 10 percent for more than a year, but it has been increasingly difficult to control the public sector deficit.

After low-inflation until the early 1970s and moderate-inflation until 1982, Mexico is now confronting high inflation. In the first stage of adjustment, inflation jumped as a result of a series of devaluations and some compensatory increases in wages. The high inflation of 1982 was followed by a slow deceleration, and later by another sharp increase when additional price adjustments were necessary because of the fall in the price of oil. The slow deceleration--first after 1982 and then after the price adjustments

---

9/ In August 1985, the Peruvian government implemented a new economic program to accelerate economic recovery. The program also aimed to control inflation through price controls, while absorption was to expand through fiscal incentives. The initial results were positive in terms of both recovery of output and control of inflation. However, by mid-1987 recovery was frustrated by a lack of foreign exchange, and inflation once more accelerated.

of late 1985 and early 1986--reflected an attempt to maintain the new depreciated value of the real exchange rate through indexation of the nominal exchange rate. In both episodes, this policy resulted in the accumulation of reserves financed by the inflation tax, which also financed part of the remaining public sector deficit. In December 1987, the Mexican government started an anti-inflationary program based on the elimination of the public sector deficit, tighter control of the money supply and some correction of relative prices and wages. In January and February 1988, some prices and wages were controlled and occasionally adjusted. The government has now announced that the controlled prices (including the exchange rate) will remain fixed during March, while minimum wages will be adjusted 3 percent. Inflation is expected to decline to 3-4 percent in March, and to lower rates afterwards.

In Argentina and Brazil, inflation quickly accelerated after the price adjustments of 1981-82, and its control became eventually the main economic goal.10/ The anti-inflationary programs of Argentina (June 1985) and Brazil (February 1986) addressed their high and accelerating inflation in a drastic way. Both programs called for general freezes of prices and wages

---

10/ Chile was the only high-inflation country in which inflation did not accelerate (in Uruguay inflation accelerated at first but has slowly declined since late 1985). Price adjustments in Chile did not lead to accelerated inflation for two reasons. First, although the public sector eventually ran a significant deficit (including central bank losses), it could be financed by borrowing abroad and the newly privately-managed social security system. Second, the increased role of markets in determining private sector wages and strict control of wages in the public sector facilitated the adjustment of relative prices to the successive devaluations of the peso.

after some initial adjustments which took different directions in each country: while real wages slightly declined in Argentina, they significantly increased in Brazil (see Table III.2, part B). However, especially in Brazil, the programs did not call for strict control of public finances, and the increase in the demand for money that followed the freezing of prices was quickly accommodated by expanding domestic credit and reducing reserve requirements on deposits.

Despite the great decline in inflation immediately after the implementation of both programs, price stability could not be sustained and inflation is once again a major problem for both Argentina and Brazil. In Argentina, the low inflation of the second half of 1985 could not be maintained once the government changed its goal from price stability to economic recovery, and further adjustments in relative prices were needed (partly because of real shocks, including a decline in the terms of trade and agricultural production, but partly because of the impossibility of controlling all prices). Brazil's Cruzado program actually repressed the inflationary effect of the expansive policies that preceded the election of November 1986. Whatever the role of other forces, in particular of the inflationary inertia that prompted the freezing of prices and wages in the two programs,11/ the fundamental cause of inflation in both countries continues to be the public sector deficit.

11/ The programs aimed at breaking inflationary inertia because inflation had become self-generating through its effect on public sector deficits and because the persistence of inflationary expectations would increase the cost of contractionary fiscal and monetary policies. However, as shown in particular by the Brazilian experience, freezing of prices and wages is not an appropriate policy to break inflationary inertia because it can easily result in repressed inflation.

CHAPTER III

RECOVERY AND STRUCTURAL REFORMS

Since 1984, the region has been slowly recovering the level of its potential output but is still well below it (see Table III.1 and Table A.1 in the Statistical Appendix). The regional figures, however, conceal large differences across countries.12/ In a few, recovery has been sustained since early 1985 (Chile and Colombia) or early 1986 (Costa Rica, Jamaica and Uruguay). In others, recovery has faltered (Ecuador and Mexico in late 1985, Brazil in late 1986, and Argentina and Peru in mid-1987). In still others, sustained recovery has not yet started (Bolivia and Venezuela). The variations in performance are explained partly by the differential effect of changes in external conditions (especially the decline in the price of oil in late 1985) but mainly by differences in sustaining and deepening adjustment efforts.

12/ In Brazil and Colombia, per capita GDP of 1979-81 underestimates potential output because investment was rather high in the late 1970s or early 1980s. Trend-adjusted measures of per capita GDP may overestimate potential output, but they indicate that output in Brazil and Colombia is still below its potential. On the other hand, Argentina's potential output in 1987 may have been lower than average per capita GDP of 1979-81 because of low investment in the last ten years.

TABLE III.1. - LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Main Indicators, 1980 - 87

	1980	1981	1982	1983	1984	1985	1986	1987
OUTPUT, CONSUMPTION, AND INCOME 1/								
Argentina								
- GDP Growth rate (%)	0.8	-8.3	-6.1	1.2	1.0	-5.9	3.7	-0.8
- As % of Potential 2/								
- GDP	103.1	94.6	88.8	89.8	90.7	85.3	88.5	87.8
- Private Consumption	102.3	97.9	87.4	85.8	93.2	84.3	93.4	94.1
- Total Consumption 3/	104.3	96.8	87.1	88.1	95.4	85.5	95.4	97.2
- Income (GNP)	104.6	93.1	86.1	86.4	86.9	82.0	87.7	87.3
Bolivia								
- GDP Growth rate (%)	-3.6	-2.7	-6.9	-9.4	-3.5	-4.1	-5.1	-1.3
- As % of Potential 2/								
- GDP	99.7	97.0	90.3	81.8	79.0	75.7	71.9	70.9
- Private Consumption	95.9	107.2	90.2	87.8	79.8	91.8	81.2	79.2
- Total Consumption 3/	96.1	103.7	89.9	87.2	85.3	90.3	76.6	77.1
- Income (GNP)	99.3	95.9	88.3	80.4	78.1	73.8	70.6	70.0
Brazil								
- GDP Growth rate (%)	4.1	-5.5	-1.3	-4.7	3.4	5.9	6.9	0.7
- As % of Potential 2/								
- GDP	103.3	97.6	96.3	91.8	94.9	100.5	106.4	107.2
- Private Consumption	103.2	95.7	95.6	93.6	92.6	97.5	107.1	NA
- Total Consumption 3/	102.7	95.7	96.9	93.6	91.5	98.1	106.8	NA
- Income (GNP)	103.4	96.8	94.3	89.5	92.6	98.5	106.0	NA
Chile								
- GDP Growth rate (%)	5.7	3.8	-15.5	-2.4	4.5	0.8	3.9	3.6
- As % of Potential 2/								
- GDP	100.5	104.3	88.1	86.0	89.9	90.6	94.1	97.5
- Private Consumption	98.5	107.3	92.7	88.0	87.7	85.2	87.8	90.7
- Total Consumption 3/	98.7	107.3	82.3	78.7	83.9	78.8	81.3	84.6
- Income (GNP)	100.8	103.4	84.0	82.4	84.3	86.4	87.2	95.3
Colombia								
- GDP Growth rate (%)	2.0	0.2	-1.1	-0.4	1.3	0.4	3.1	3.4
- As % of Potential 2/								
- GDP	100.6	100.8	99.7	99.3	100.6	101.0	104.2	107.7
- Private Consumption	99.8	101.3	102.1	103.0	103.5	104.6	101.4	103.0
- Total Consumption 3/	99.6	102.6	104.1	103.8	103.0	102.9	100.5	101.4
- Income (GNP)	101.0	100.6	98.7	98.0	98.3	98.4	100.8	103.3
Costa Rica								
- GDP Growth rate (%)	-2.8	-3.1	-9.0	-2.3	8.1	-1.8	-2.4	0.1
- As % of Potential 2/								
- GDP	100.1	96.9	88.2	86.2	93.2	91.6	89.4	89.5
- Private Consumption	100.6	93.1	83.2	83.8	90.7	91.2	88.5	88.8
- Total Consumption 3/	103.6	92.1	84.1	85.9	91.4	91.2	89.3	83.6
- Income (GNP)	100.3	95.4	84.0	83.6	96.9	89.3	87.3	87.6

1/ All variables are on a per capita basis in constant prices.
2/ The potential value of the variable is defined as the average per capita variable in constant prices for the years 1979-81.
3/ Total consumption includes private consumption, public consumption, and the change in stocks.

TABLE III.1. - LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES (CONT'D)
Main Indicators, 1980 - 87

	1980	1981	1982	1983	1984	1985	1986	1987
OUTPUT, CONSUMPTION, AND INCOME 1/								
Ecuador								
- GDP Growth rate (%)	1.9	1.0	-1.8	-5.6	1.3	1.5	0.0	-5.8
- As % of Potential 2/								
- GDP	100.3	101.3	99.5	94.0	95.2	96.6	96.5	91.1
- Private Consumption	100.7	102.6	101.4	96.1	96.0	96.3	95.9	NA
- Total Consumption 3/	102.0	101.1	102.8	94.4	93.7	92.8	91.6	NA
- Income (GNP)	100.2	100.8	96.8	91.3	90.6	92.2	94.3	NA
Jamaica								
- GDP Growth rate (%)	-6.7	1.3	-0.2	0.5	-2.2	-6.2	0.9	2.6
- As % of Potential 2/								
- GDP	97.3	98.5	98.3	98.7	96.6	90.6	91.4	93.8
- Private Consumption	99.3	96.2	95.3	94.2	93.1	91.7	91.7	90.3
- Total Consumption 3/	98.4	97.9	96.2	95.4	91.1	86.0	90.2	90.1
- Income (GNP)	96.5	99.3	99.1	100.8	90.0	81.5	84.5	87.2
Mexico								
- GDP Growth rate (%)	5.2	5.1	-3.1	-7.6	1.2	0.5	-5.0	-1.3
- As % of Potential 2/								
- GDP	100.0	105.1	101.8	94.1	95.2	95.7	90.9	89.8
- Private Consumption	99.9	104.5	102.9	92.8	92.9	92.7	88.1	85.8
- Total Consumption 3/	100.4	105.9	98.6	90.3	91.2	92.5	84.3	81.5
- Income (GNP)	99.9	104.1	97.3	90.4	92.5	94.2	89.0	88.3
Peru								
- GDP Growth rate (%)	1.8	1.8	-2.4	-14.6	2.1	-0.1	5.8	4.3
- As % of Potential 2/								
- GDP	100.0	101.8	99.3	84.8	86.6	86.6	91.5	95.4
- Private Consumption	99.8	102.5	100.7	89.5	88.9	88.0	97.3	99.7
- Total Consumption 3/	101.4	105.4	102.6	86.7	84.4	82.3	91.2	94.7
- Income (GNP)	100.7	102.5	100.1	84.1	85.9	86.8	93.2	97.2
Uruguay								
- GDP Growth rate (%)	5.3	1.2	-10.0	-6.5	-2.1	-0.7	7.4	4.9
- As % of Potential 2/								
- GDP	101.3	102.5	92.2	86.3	84.4	83.9	90.0	94.4
- Private Consumption	101.9	103.6	92.9	83.4	77.5	78.6	84.0	NA
- Total Consumption 3/	101.6	102.7	92.6	83.8	80.4	81.6	87.4	NA
- Income (GNP)	101.1	102.6	90.9	83.5	80.7	80.1	86.7	NA
Venezuela								
- GDP Growth rate (%)	-5.1	-3.3	-2.2	-8.2	-4.0	-2.4	2.4	-1.1
- As % of Potential 2/								
- GDP	99.3	96.1	94.0	86.2	82.8	80.7	82.6	81.7
- Private Consumption	100.7	97.6	96.0	84.2	82.1	82.1	81.5	NA
- Total Consumption 3/	100.6	97.0	98.4	86.2	84.4	82.8	83.2	NA
- Income (GNP)	99.5	96.7	91.0	82.2	80.1	76.8	81.7	NA

1/ All variables are on a per capita basis in constant prices.
2/ The potential value of the variable is defined as the average per capita variable in constant prices for the years 1979-81.
3/ Total consumption includes private consumption, public consumption, and the change in stocks.

The binding constraint on recovery has been the acute shortage of foreign exchange: attempts to accelerate recovery have been frustrated by a lack of foreign exchange to maintain the level of imports demanded by higher utilization of labor and capital. For a long time, the incentive structures had hindered the creation of new sources of foreign exchange in most Latin American countries, while at the same time encouraging production structures that could easily be disrupted by a decline in the availability of foreign exchange for imports. The disruption in the early 1980s was severe because of the sudden decline in export earnings and foreign credit and the increased demand for foreign exchange to service the debt. Part of the decline in the availability of foreign exchange may be transitory, but there has been a permanent change to which the highly indebted countries have to adjust. Given the already large contraction in imports in 1983-84, the problem cannot be solved by further reducing demand: imports required by full employment of labor and capital cannot be reduced much further without significantly sacrificing output.

The creation of new sources of foreign exchange requires a significant reallocation of resources that in turn calls for reform of the structure of incentives. Since the effectiveness of any reform of the trade regime depends ultimately on the whole structure of incentives, it is necessary to consider as well as the structures for allocating resources between the public and private sectors and for efficiently using the resources in each sector. Further, as development of new sources of foreign exchange takes time, the workings of the foreign exchange regime during the transition period are crucial. This chapter opens the analysis of recovery with a discussion of the foreign exchange regime, followed by a discussion of the trade regime and the incentives for efficiency in the public and private sectors.

1. The Foreign Exchange Regime

So far, what little recovery the highly indebted countries have achieved has rested more on the small margin for import substitution than on a sustained increase in the availability of foreign exchange. In general, the supply of foreign exchange for imports has been increasing only slowly since the abrupt decline at the beginning of the crisis and is still quite low.13/ More importantly, the supply of foreign exchange has been fluctuating widely because of changes in external conditions (terms of trade, interest rates and new money agreements), domestic adjustment policies and debt-servicing policies. Everywhere in the region, these fluctuations threaten recovery.

In that context, consistency between the foreign exchange regime and macroeconomic management is crucial for the success of reforms aimed at a sustained increased in the supply of foreign exchange. In particular, exchange rate policies that attempt to repress the inflationary pressures of public sector deficits and expansionary monetary policies have a long record of failure, reaffirmed just recently by the experiences of Brazil (1986) and Peru (1985-87).14/ In their exchange rate policies, the highly indebted

---

13/ There are two sets of measures of this supply. One set looks at liquidity, and its indicators may be useful for short-run management of foreign exchange. The other set focuses on the import capacity that can be supported by export earnings, and measures may be useful in appraising that capacity in the medium and long term. Both sets of measures indicate slow recovery of the supply of foreign exchange.

14/ Argentina's Austral Plan (June 1985) fixed the nominal exchange rate as part of the general freeze of prices and wages. However, after prices and wages started to rise, the government has adjusted the exchange rate regularly to avoid sharp fluctuations in relative prices.

countries have tried to balance the "full utilization" of all foreign exchange with the incentive to increase its supply. Generally, governments have sacrificed the former to the latter. The depreciated values of real exchange rates in the last five years reflect this choice, although annual variations in the rates have been significant (see Table III.2). Maintaining this balance has required a high degree of upward flexibility in nominal exchange rates that has contributed to the downward inflexibility of nominal prices.15/ This exchange rate policy may be appropriate during reform of the trade regime, but if inflation is to be lowered to international levels, exchange rate policy cannot be aimed at maintaining some level of the real exchange rate (and, in general, a particular structure of relative prices).16/

Governments established multiple exchange rates as an initial reaction to the abrupt decline in the supply of foreign exchange. Typically, they divided official exchanges into trade-related transactions and capital-related transactions. Restrictions on the convertibility of national

---

15/ The growing acceptance of upward flexibility in nominal exchange rates has not led to experiments with freely floating exchange rates. They have been tried only infrequently and then only for short periods.

16/ On the basis of the experience of the Southern Cone countries in the late 1970s, it is often argued that exchange rate policy should not be used to reduce inflation. The argument is correct only to the extent that fixing (or manipulating) the exchange rate aims at repressing inflation, i.e., at negating the effects of inflationary financing on prices (actually, this proposition is valid for any policy based on control of some prices and wages to repress inflation). That objective was not the case of Chile in February 1978 when the government implemented the so-called tablita to break inflationary inertia (nor when it fixed the exchange rate in June 1979), but it was the case of Argentina in January 1979, when the government started its own tablita and was also, to a lesser extent, the case in Uruguay in late 1978.

TABLE III.2. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Relative Prices and Wages (1980=100)

	1981	1982	1983	1984	1985	1986	1987
PART A: Real Exchange Rate							
Argentina	77.0	50.7	42.7	49.7	44.0	44.1	39.3
Bolivia	125.9	136.6	125.6	172.2	268.9	82.1	77.2
Brazil	121.5	128.4	104.2	104.3	100.1	94.4	95.2
Chile	116.0	101.6	86.8	85.3	68.8	58.1	54.0
Colombia	102.4	110.5	114.2	104.6	91.3	68.0	60.0
Costa Rica	63.5	72.5	83.4	81.9	80.8	72.7	64.8
Ecuador	111.8	109.4	104.1	86.9	89.3	71.9	53.0
Jamaica	106.5	110.5	104.3	72.9	63.8	68.5	56.9
Mexico	109.3	81.6	71.7	83.8	86.3	60.4	57.8
Peru	118.5	122.6	114.4	114.3	94.0	105.9	130.2
Uruguay	108.9	117.5	72.2	69.2	66.9	65.9	64.3
Venezuela	111.9	121.1	110.3	93.6	89.9	75.1	55.0
PART B: Real Wages							
Argentina	89.4	80.1	100.5	127.1	107.8	109.5	100.3
- Minimum Wage	95.8	97.6	137.7	173.5	117.1	111.1	122.6
Bolivia	NA	NA	NA	NA	NA	NA	NA
Brazil (Sao Paulo)	104.7	107.2	94.0	96.7	118.9	149.8	142.0
- Rio de Janeiro	108.5	121.6	112.7	105.1	112.7	121.8	105.8
- Minimuw Wage	104.4	104.6	93.8	85.6	87.0	87.1	72.2
Chile	108.9	108.6	97.1	97.2	93.5	95.1	93.7
- Minimum Wage	115.7	117.2	94.2	80.7	76.4	73.6	69.2
Colombia	101.4	104.8	110.3	118.5	114.9	120.2	121.9
- Minimum Wage	98.9	103.6	107.9	113.5	109.4	114.2	116.3
Costa Rica	88.3	70.8	78.5	84.7	92.2	97.8	NA
- Minimum Wage	90.4	85.9	99.3	104.4	112.2	119.0	120.3
Ecuador (Minimum Wage)	86.2	75.9	63.6	62.8	60.8	65.4	61.8
Jamaica	NA	NA	NA	NA	NA	NA	NA
Mexico	103.5	104.4	86.7	76.4	76.6	72.8	NA
- Minimum Wage	101.9	92.7	76.6	72.3	71.1	64.9	55.9
Peru	98.3	100.5	83.7	70.1	59.6	75.5	80.6
- Minimum Wage	84.2	77.8	89.2	69.0	66.3	62.5	63.4
Uruguay	107.5	107.1	84.9	77.1	88.1	94.0	97.5
- Minimum Wage	103.4	104.6	89.6	89.9	94.1	89.2	84.6
Venezuela (Minimum Wage)	86.8	86.1	75.1	66.7	91.4	85.5	101.0

currencies led, however, to the emergence of parallel markets. More recently, in some countries, governments have unified official markets. Even if the multiple exchange rates were effective in allocating foreign exchange at the beginning of the crisis, they have further aggravated the distortions in incentives for the production of goods and services (see section III.2) and exacerbated the uncertainty over the path of real exchange rates in countries where macroeconomic stability was hard to sustain.

A comparison of Chile and Argentina is illustrative of the effect of multiple exchange rates on uncertainty.17/ While in Chile the parallel exchange market has been effective in absorbing transitory changes in the demand for and supply of foreign exchange (as well as transactions involving debt-peso swaps) without affecting exports and imports, the erratic fluctuations of Argentina's parallel exchange rate have been a major indicator of private sector speculation about government policies and have added to the uncertainty about the official exchange rate.18/ In all highly indebted countries, unification of the exchange rates will be difficult as

---

17/ The parallel rate in Chile is usually around 5-10 percent over the official rate, while in Argentina it is usually much higher than 10 percent over the official rate.

18/ The ultimate cause of the fluctuations in Argentina's parallel exchange rate is erratic economic policies. However, speculation likely compounds the uncertainty caused by erratic policies. The elimination of the parallel exchange market through convertibility at a "very high" official exchange rate may be quite costly because large international reserves would be needed to absorb speculation.

long as the service of public sector debt demands substantial foreign exchange and the ultimate sources of instability are not controlled.

Another serious emerging issue in some countries is the management of unexpected inflows of foreign exchange because of the likely effects on stability and recovery. In Mexico, the inflow of repatriated capital resulted in the accumulation of large reserves in 1987. Paradoxically, Mexico is accumulating those reserves at a time when it is embarking on significant reforms to create new sources of foreign exchange and of hard negotiations with its foreign creditors to reduce the burden of the public sector debt. In Chile, if precedent were followed, the income gain from the recent increase in the price of copper would lead to expansionary policies. The government established a copper stabilization fund in 1985 to manage this major source of unexpected inflows of foreign exchange. However, the actual mechanism has limited the value of the fund because the reference price for its operation is the government budget price for each fiscal year, rather than a price reflecting longer-term factors.

2. Export Growth and the Trade Regime

The expenditure-switching policies implemented at the beginning of the crisis were expected to affect the composition of expenditures as well as provide some incentive to shift resources to the production of tradable goods and services. Devaluations were effective in switching expenditures, but the response of production has been limited, especially in the case of production requiring large investments with long gestation periods. So far, the response of exports has been determined mainly by declines in domestic demand

rather than by increases in production. This pattern has been the case with nontraditional manufacturing exports in particular (as in Brazil in 1983-85 and again in 1987), but it has also been the case with commodity exports that have a significant domestic market (for example, beef in Argentina). While those exports have been responsive to the appreciation of the real exchange rate, the expansion of commodity exports with little domestic demand has depended on investment programs undertaken before the crisis (the case with copper, forestry and fruits in Chile, and oil in Mexico and lately in Colombia). However, the production of manufactures started to respond to the new price incentives in 1987, especially in Brazil, Chile and Mexico.

Devaluations were effective in correcting the initial external imbalances, but maintaining the new values of the real exchange rates has been increasingly difficult. The low real wages that accompanied the real devaluations created pressures for a reversal of the changes in relative prices. That reduction in real wages was partly the result of the income losses from the external shocks, but also of the resource reallocation necessary to cope with the shortage of foreign exchange. As shown in Table III.2, real wages have declined significantly in most countries, and pressures to return to previous levels have been emerging well before the reallocation of resources to the production of tradable goods and services is completed. If productivity were to increase quickly, real wages could recover without pressuring the structure of relative prices, especially the real exchange rate. Otherwise, additional incentives to reallocate resources toward the production of tradable goods and services will be necessary.

The possible need for other incentives is reinforced by the great disparity in the effective protection of production that existed before the

crisis and by the additional effects of the initial measures to restrict imports. The distorted incentives provided by the structure of effective protection has negatively affected primary activities, as well as the expansion and diversification of exports. In 1982-84, governments in most countries introduced quantitative restrictions on imports and differential increases in import tariffs as part of their expenditure-switching policies. While these measures were effective in controlling imports, they likely reinforced the distortions in the trade regime, and made reform of this regime even more imperative once the new external conditions were perceived as permanent. Some countries have taken a first step by partially removing the emergency measures. Mexico has been dismantling its system of quantitative restrictions and has just reduced import tariffs to a maximum level of 20 percent. Chile reduced the uniform tariff on imports from 35 percent to 20 percent and more recently to 15 percent (it was 10 percent before the crisis).

In most highly indebted countries, there is growing acceptance that significant reform of the trade regime is necessary. However, the direction of reform is not yet clear. Since the immediate goal is to expand exports, one approach would be to imitate the policies of successful experiences like Korea. The same interest groups that years ago pressed for protection in Latin America now perceive the role of the government in allocating resources, especially financial resources, as having been crucial for the success of the Korean economy. On the other hand, the alternative of trade liberalization as pursued in the late 1970s in Chile, which resulted in a uniform tariff of 10 percent, minimizes the role of government in resource allocation and aims at allocative efficiency, rather than specifically export

growth. The Chilean experience is mentioned as evidence that this liberalization carries large adjustment costs, particularly in terms of unemployment, but the evidence is far from conclusive.19/ The merits of the two strategies continue to be contended, but so far, with the exception of Mexico, there has been little progress in reforming the trade regime that existed before the crisis.

3. Resource Reallocation: Public and Private Sectors

The effectiveness of trade regime reforms is conditioned by the resources directly controlled by the public sector and by other incentives that constrain the behavior of the private sector. In most highly indebted countries, years of continuous growth have left the public sector in control of a large number of enterprises, either directly (public enterprises) or indirectly through grants or subsidized credit. Production of many private goods and services (in addition to public ones) is controlled by public institutions. The growth of the public sector has been further complicated, from a financial viewpoint, by its pervasive role in redistributing income, particularly through the social security system.

19/ The large unemployment of 1975-80 has been attributed to several factors: income losses from the external shocks, uncovering of the increase in disguised employment in 1970-73, reform of the public sector (especially privatization), contractive monetary policy, reform of labor laws and reform of the trade regime. The relative importance of these factors has been difficult to establish.

Restructuring the public sector is a prerequisite for a successful trade policy reform.20/ In addition to uncertainty over the distribution of the burden of adjustment, several other factors support this hypothesis. First, export taxes and import tariffs are important sources of government revenue, and any attempt to change them will have to be part of an overall tax reform. Indeed, the decline of international prices may necessitate reducing the taxation of some traditional commodity exports independently of any other trade policy reforms (the case with wheat and other cereals in Argentina). Second, trade reforms may lead to large losses in import-substitution activities controlled or financially supported by the state. The prospect of these enterprises becoming chronic loss-makers will create pressure to reverse the reforms. Third, the prospects for successful competition in world and domestic markets also depend on the efficiency of the public sector, especially in the production of inputs for private production of tradable goods and services. For example, compensating for public sector inefficiency by taking advantage of monopolistic power in pricing is likely to hurt the competitiveness of private production.

The economic role of the state is not limited to production and income redistribution but includes regulation of private sector activities. A number of legal and administrative constraints to private activities have

---

20/ In Chile, the trade reform of 1975-79 was preceded by important reforms of the public sector, including: a new tax system, privatization of enterprises (although of some the largest continued to be owned and controlled by the state), and appropriate incentives for the management of public enterprises. After the trade reform was completed, further reform of the public sector was undertaken, especially privatization of the management of the social security system.

accompanied the growth of the public sector, including severe restraints on the entry of foreign investors into most production activities. The main consequences of these regulations have been very limited mobility of human, physical and financial resources and the creation of rents. Thus, the effects of trade policy reforms cannot be taken for granted: the whole structure of incentives may continue to hinder efficiency, capital accumulation and innovation. Recognition of this situation, as well as a desire to open the economy only in specific activities and areas, have stimulated the establishment of free trade areas and export promotion schemes. These, however, have created new distortions in the structure of effective protection and are likely to entrench the regulatory role of government further.

The current regulatory framework of financial intermediation is a major obstacle to reallocating resources to the production of tradable goods and services in Latin America's highly indebted countries. That regulatory framework has been the result mainly of the financial needs of the public sector and of the attempts to control the allocation of financial resources. In the last five years, in most highly indebted countries, governments have been forced to change financial policies with the immediate objective of increasing the supply of domestic financing to the public sector, rather than of enhancing efficiency in the allocation of financial resources. The pursuit of that objective has further increased the cost of financial resources for the private sector, to unsustainable levels that are threatening the solvency of banks and other financial intermediaries. In Chile, the financial crisis of the private sector was a main characteristic of the internal and external imbalances that precipitated the recession of 1982, but in other highly indebted countries, the increasing probability of a

financial crisis in the private sector is a consequence of the failure to properly and quickly correct the public sector imbalance. Further, reform of the financial system to enhance its allocative efficiency will hardly be successful until the fiscal crisis is effectively solved.

CHAPTER IV

INVESTMENT, SAVINGS AND STEADY GROWTH

While the analysis of macroeconomic stability in Chapter II was tied to the actual experience of adjustment policies, the discussion of recovery in Chapter III focused more on issues that governments are just beginning to deal with: reform of the foreign exchange and trade regimes, restructuring of the public sector, and deregulation of the private sector. The ongoing debate over these issues suggests the recovery of production is still in an early stage, a conclusion supported by the data in Table III.1. Those data also show that income and consumption have recovered very little. It should not then be a surprise that investment and national savings (as ratios of GDP and national income, respectively) have also not reached their historical levels.

This chapter focuses on the decline in investment and national savings during the last five years. The discussion is a prelude to analysis of the role of foreign savings as a constraint on the recovery of output and investment. The resources that highly indebted countries have being transferring abroad to service their debts have reduced national disposable income and consequently both consumption and national savings. This transfer poses an important question: if additional debt relief had been granted in the last five years, how would it have been distributed between consumption and investment? The answer depends on the explanation of the behavior of investment and national savings.

1. Behavior of Investment

The reduction in domestic expenditures in 1983-84 was quite high in most highly indebted countries. Only in Colombia they increased relative to 1980-81 even after the adjustment of late 1984, while in Jamaica they slightly increased relative to 1980-81, mainly because domestic expenditures had already declined relative to the levels of the late 1970s. Given the large relative importance of consumption in domestic expenditures, it is not surprising that most of the reduction in domestic expenditures is accounted for by a reduction in consumption (see part A of Table IV.1). However, as shown in part B of Table IV.1, the decline in investment has been much larger than that in consumption. Indeed, low investment ratios in the last five years have become a major characteristic of Latin America's economic crisis. Despite shortcomings of the data, the general impression is that both the public and private sectors have significantly reduced their capital expenditures.

The contraction in private investment is explained by the increase in the cost of capital, by the uncertainty over investment prospects, by the increase in the repositioning cost of capital goods and by the excess capacity in a number of sectors. First, the increased cost of capital was the result of the cessation of voluntary foreign credit, aggravated by the income losses from the external shocks, including the substantial increase in international interest rates, and by the general uncertainty over adjustment policies, especially over the contraction of the public sector and attempts to shift the burden of adjustment to the private sector. Second, attempts to reform trade regimes have been a particular source of uncertainty that affected investment directly. For example, uncertainty over the

TABLE IV.1. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Domestic Expenditure (changes between annual averages of 1980-81 and indicated years; percentages)

	Total Change In Domestic Expenditure	Change in Consumption			Change in Investment		
		Total	Private	Public	Total	Private	Public
Part A: Composition of Change in Domestic Expenditure							
Argentina							
1983 - 84	-11.9	-10.2	-8.4	-1.8	-1.7	-1.2	-0.5
1985 - 87	-9.4	-8.2	-6.8	-1.5	-1.2	-0.9	-0.2
Bolivia							
1983 - 84	-13.2	-12.4	-9.8	-2.5	-0.9	-0.2	-0.6
1985 - 87	-12.6	-11.8	-10.0	-1.7	-0.8	-0.4	-0.5
Brazil							
1983 - 84	-6.5	-5.5	-4.9	-0.6	-1.0	NA	NA
1985 - 86	9.4	7.8	6.9	0.9	1.6	NA	NA
Chile							
1983 - 84	-20.3	-17.6	-14.9	-2.7	-2.7	NA	NA
1985 - 87	-13.7	-11.4	-9.8	-1.6	-2.2	NA	NA
Colombia							
1983 - 84	8.3	6.9	6.1	0.8	1.4	NA	NA
1985 - 87	11.9	9.9	8.8	1.1	2.0	NA	NA
Costa Rica							
1983 - 84	-7.0	-5.8	-4.6	-1.2	-1.2	NA	NA
1985 - 87	3.8	3.1	2.5	0.6	0.8	NA	NA
Ecuador							
1983 - 84	-1.1	-1.1	-0.9	-0.2	-0.1	-0.1	0.0
1985 - 86	2.9	2.7	2.3	0.4	0.2	0.1	0.1
Jamaica							
1983 - 84	4.0	3.3	2.4	1.0	0.7	NA	NA
1985 - 87	2.2	1.8	1.3	0.5	0.4	NA	NA
Mexico							
1983 - 84	-11.5	-9.6	-8.4	-1.2	-2.0	-1.1	-0.9
1985 - 87	-11.7	-9.6	-8.5	-1.2	-2.0	-1.4	-0.6
Peru							
1983 - 84	-14.8	-11.7	-10.0	-1.7	-3.2	NA	NA
1985 - 87	-6.2	-4.9	-4.3	-0.7	-1.3	NA	NA
Uruguay							
1983 - 84	-22.9	-20.3	-16.8	-3.5	-2.6	-1.6	-1.0
1985 - 86	-22.8	-20.9	-17.2	-3.7	-1.9	-1.2	-0.7
Venezuela							
1983 - 84	-15.1	-12.4	-10.1	-2.3	-2.7	-0.9	-1.8
1985 - 86	-10.7	-8.9	-7.4	-1.5	-1.8	-0.7	-1.1

TABLE IV.1. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES (CONT'D.)
Domestic Expenditure (changes between annual averages of 1980-81 and indicated years; percentages)

	Total Change In Domestic Expenditure	Change in Consumption			Change in Investment		
		Total	Private	Public	Total	Private	Public
Part B: Changes in Components of Domestic Expenditure							
Argentina							
1983 - 84	-11.9	-4.2	-6.3	6.8	-40.8	-38.2	-46.2
1985 - 87	-9.4	0.5	-1.6	12.4	-46.8	-36.7	-67.4
Bolivia							
1983 - 84	-18.2	-6.4	-12.2	25.8	-57.8	-71.2	-47.8
1985 - 87	-12.6	-6.0	-5.4	-9.3	-55.7	-56.7	-55.0
Brazil							
1983 - 84	-6.5	-0.2	0.1	-3.1	-29.9	NA	NA
1985 - 86	9.4	15.0	15.0	14.8	-11.6	NA	NA
Chile							
1983 - 84	-20.3	-17.0	-19.1	-2.7	-36.6	NA	NA
1985 - 87	-18.7	-13.1	-14.4	-4.4	-16.6	NA	NA
Colombia							
1983 - 84	8.8	8.6	8.7	7.7	7.1	NA	NA
1985 - 87	11.9	12.1	12.9	6.2	11.0	NA	NA
Costa Rica							
1983 - 84	-7.6	-2.6	-1.3	-7.2	-24.3	NA	NA
1985 - 87	3.8	4.8	6.6	-1.8	0.1	NA	NA
Ecuador							
1983 - 84	-1.1	1.0	2.5	-6.2	-24.7	-28.8	-12.3
1985 - 86	2.9	4.8	8.8	-12.3	-18.9	-23.2	-6.1
Jamaica							
1983 - 84	4.6	-0.5	-2.8	5.1	36.6	NA	NA
1985 - 87	2.2	-1.8	-8.7	3.3	28.7	NA	NA
Mexico							
1983 - 84	-11.6	-6.1	-6.8	9.4	-33.5	-27.8	-39.6
1985 - 87	-11.7	-5.3	-6.7	6.5	-33.0	-11.8	-55.9
Peru							
1983 - 84	-14.8	-10.5	-12.1	0.2	-27.6	NA	NA
1985 - 87	-6.2	-0.1	-0.8	4.6	-24.2	NA	NA
Uruguay							
1983 - 84	-22.9	-18.6	-20.7	-1.6	-47.4	-54.6	-38.8
1985 - 86	-22.8	-16.2	-18.6	5.6	-61.2	-65.3	-51.8
Venezuela							
1983 - 84	-15.1	-9.1	-10.8	-6.6	-34.8	-50.4	-21.8
1985 - 86	-10.7	-3.3	-3.5	-2.3	-35.2	-45.3	-26.8

sustainability of the reforms is discouraging investment in the production of tradable goods and services and the repositioning of capital in the production of non-tradable goods and services. Third, the shortage of foreign exchange has significantly boosted the price of imported capital goods for which there are no domestic substitutes. Finally, the new conditions have called for a redeployment of assets, but that too has been deterred by uncertainty, especially where owners would have to absorb large losses because their assets have no alternative use.

The contraction in public investment, which has been as important as that in private investment, is explained by political processes that constrain the level and composition of public expenditures. However, the economic arguments that explain the reduction in private investment also apply to public investment. The cost of capital and the price of imported capital goods have increased for both sectors, and uncertainty about the sustainability of the new structure of relative prices should also have affected public investment. Indeed, uncertainty about prices should at least have delayed specific investments (i.e., investments in assets that could not be redeployed without a large sacrifice in productive value), the case with most infrastructure projects, which are undertaken by the public sector. On the other hand, the return on some public investments (especially in human capital) should not have been affected much by uncertainty, and their reduction may be explained by the increased cost of capital (of course, their actual reduction is explained mainly by non-economic reasons).

The recovery of private investment depends mainly on the same factors that influence the recovery of output; private investment should follow sustained recovery of output with a lag. While a reduction in uncertainty will encourage a reallocation of resources and accelerate the

pace of recovery, an increase in the availability of foreign exchange will eventually lead to a reduction in the repositioning cost of capital goods. The experience of Chile during the last two years supports this view, although it also reaffirms the significance of the political climate in constraining the recovery of private investment, especially in terms of projects with long gestation periods.

The sustained recovery of public investment will depend on how quickly the public sector is restructured. A hardening of the public sector budget constraint is pushing the governments of highly indebted countries to introduce significant reforms. In the meantime, however, investment is likely to be the residual variable that balances expenditures, revenues and indebtedness. The conflict between the public and private sectors will persist as long as governments fail to restructure the public sector, as its size and dominant position in the economies discourage investment. In sum, the prospects for sustained recovery in total investment ultimately depend on the ability of governments to pursue viable adjustment programs that reduce uncertainty. In a context of a confrontation between the private and public sectors, total investment will not increase pari passu with public investment because the continued expansion of the public sector is likely to displace private investment.

2. Behavior of National Savings

The decline in consumption in all countries has not been as large as the reduction in national disposable income. At least the initial reduction in disposable income was accompanied by a marginal propensity to consume well below one, and the average ratios between national savings and income

declined. The reduction in national savings relative to GDP was even larger (for the ratios between national savings and GDP, see Table IV.2).21/ While savings ratios in most countries have recovered somewhat in the last three years, it appears the recovery has been steady only in Chile. The main reason for the erratic behavior of savings ratios is the large fluctuations in public sector savings, an indication not only of policy changes but also of measurement problems.

The main cause of the reduction in national savings was the decline in national income that resulted from both the external shocks and the correction of macroeconomic imbalances. The decline in savings ratios is explained by other factors, such as perceptions about the loss of wealth the income losses implied, the redistributive policies of governments and the relative importance of public and private sectors savings (the increase in interest rates may have partially compensated for these factors). It is likely that, at least initially, income losses were perceived as temporary. Consequently, the loss of wealth was minor, and consumption levels were reduced only slightly. As time elapsed and that perception changed, the increased loss of wealth might have further lowered consumption relative to current income. The response of different groups to that loss of wealth has depended in part on unstable redistributive policies. The "protected" groups varied across countries, but no group was totally protected from income losses. The changing degree of protection may have delayed the recognition of losses at the country level. Finally, despite data shortcomings, it seems the decline in public sector savings was more marked than the decline in

---

21/ The country tables of the Statitiscal Appendix show estimates of the ratios between national savings and GDP and GNP at current prices.

TABLE IV.2. LATIN AMERICA'S HIGHLY INDEBTED COUNTRIES
Savings (changes between annual averages of 1980-81 and indicated years; percentage points of GDP)

	Change in Domestic Savings Surplus	Change in Domestic Savings	Change in National Savings Surplus	Change in National Savings	Change in Investment
Argentina					
1983-84	8.3	0.1	4.0	-4.3	-8.2
1985-87	6.1	-3.6	3.9	-5.8	-9.7
Bolivia					
1983-84	0.6	-6.6	0.5	-6.7	-7.2
1985-87	-5.4	-11.2	-6.4	-12.3	-5.8
Brazil					
1983-84	5.3	0.0	3.2	-2.1	-5.3
1985-86	6.3	2.3	5.5	1.5	-4.0
Chile					
1983-84	8.1	2.6	2.6	-2.8	-5.5
1985-86	10.5	7.3	2.9	-0.3	-3.2
Colombia					
1983-84	-2.5	-2.6	-4.1	-4.2	-0.1
1985-87	4.3	3.9	0.3	-0.1	-0.4
Costa Rica					
1983-84	6.8	2.4	5.1	0.7	-4.4
1985-87	6.3	2.5	6.3	2.5	-3.8
Ecuador					
1983-84	4.8	-2.1	1.8	-5.2	-6.9
1985-86	3.1	-2.5	-0.1	-5.7	-5.5
Jamaica					
1983-84	-3.2	1.4	-7.1	-2.5	4.6
1985-87	2.2	5.8	-9.7	-6.1	3.6
Mexico					
1983-84	10.5	2.6	8.0	0.1	-7.9
1985-87	7.4	1.8	5.7	0.1	-5.6
Peru					
1983-84	5.0	3.4	3.3	1.7	-1.5
1985-86	5.8	5.1	5.2	4.5	-0.7
Uruguay					
1983-84	7.7	1.6	2.4	-3.7	-6.1
1985-86	9.3	0.4	4.5	-4.4	-8.9
Venezuela					
1983-84	2.6	-5.7	-1.5	-9.7	-8.2
1985-86	-3.7	-11.2	-7.2	-14.7	-7.5

private savings. The lower public sector savings are mainly explained by the decline in public investment.

While the recovery of public sector savings will largely parallel that of public investment,22/ the pace of recovery of private savings will be determined by the actual path of disposable income and expectations about its future. Given the prospect for slow recovery of disposable income, a significant increase in savings ratios cannot be expected, even though the ratios are likely to move back toward their pre-crisis levels. Despite extensive discussion about incentives for private savings, there is no evidence that any specific policy (including freeing the interest rates) will have positive effects. Ultimately, the sustained recovery of savings ratios will depend on macroeconomic stability.

3. Foreign Savings and Debt Relief

The recent evolution of savings in Latin America's highly indebted countries is presented in Table IV.2. Two concepts of savings are shown: domestic and national, with the former equal to national savings plus net factor income payments to foreigners. Because of the increase in interest payments, domestic savings have not declined as much as national savings; actually, domestic savings ratios have increased in some countries. The difference between domestic savings and gross fixed investment is equal to the trade surplus (or resource balance), which is indicative of the net transfer of resources to foreigners. The excess of gross fixed investment

---

22/ Actually, if the public sector deficit is to decline, public savings can be expected to increase more than investment for some time.

over national savings is equal to the current account deficit, which by definition is equal to foreign savings.23/

The net transfer of resources to foreigners has been significant since 1983, although the current account deficit indicates that foreign savings have continued to flow into most highly indebted countries. For the 12 highly indebted countries shown in the table, the accumulated transfer over 1983-87 amounted to US$ 132.6 billion, or 4.2 percent of GDP. In turn, the accumulated current account deficit amounted to US$ 22.9 billion over that period, or 0.9 percent of GDP. As to the financing of this current account deficit, net disbursements from official creditors (excluding the IMF) provided US$ 16.1 billion, while IMF's net disbursements and the depletion of international reserves accounted at least for the remaining amount. Gross estimates of commercial banks' net disbursements indicate that, once repayments of short-term and long-term credit to debtor countries' private sector are taken into account, they would have been slightly negative.

Both commercial banks and official creditors have, however, been criticized for failing to provide enough financing in the last five years so as to postpone the resource transfer until economic recovery is well advanced. Debt relief under restructuring agreements has involved the provision of new money to ensure the payment of interest, which is recorded

---

23/ Because of data shortcomings, the change in stocks has been added to consumption. Thus, both national savings and gross fixed investment are net of the change in stocks.

as foreign savings.24/ Additional debt relief in the form of new money would have been distributed between investment and consumption, assuming the debtor country was not in arrears with creditor banks and ignoring the possibility of capital flight.25/

The distribution of that additional debt relief (or foreign savings) would have been dependent on the specific form of the foreign savings and the context in which the flow took place. Foreign savings not tied to particular investment projects likely would have been used mainly to increase consumption. This is so because the binding constraint on the recovery of output has been a shortage of foreign exchange rather than of capital goods, and because consumption has been restricted to a level below that consistent with a return to more normal conditions. The additional foreign savings would have amounted to compensatory financing in the presence of an external shock. Besides, it would have posed to creditors the dilemma between additional external financing and adjustment that has pervaded the theory and history of balance-of-payments crisis: when does additional financing become a negative incentive for adjustment? If the additional financing had not

---

24/ In addition, debt relief has included the rescheduling of amortizations. It should be noted that the financing from multilateral institutions can be considered debt relief, at least to the extent that its amount has been determined as part of the restructuring process. Since debt restructuring assumes that debtor countries are faced with a "liquidity" problem, relief is not expected to imply a reduction in the present value of the cost of the debt. However, current discussions about reducing the debt burden focus on relief in the sense of reducing its present value.

25/ If the country had been in arrears, the new money would have been tied to service the debt (as in the recent preliminary agreement between Brazil and its creditor banks) and domestic expenditures could have not increased.

deterred ongoing debtor countries' adjustment efforts, consumption of the additional foreign savings would have increased the welfare of these countries more than investment. The experience of countries that eventually received a larger inflow of foreign credit, as Argentina since June 1985, seems to support this view.

Additional debt relief could have also taken the form of a reduction in interest payments, the implication being an increase in national disposable income, part of which would have been consumed immediately. Despite an initial increase in national savings (but certainly a reduction in domestic savings), the short-run effect of this relief on investment would have been minor. The depressed conditions within which the relief would have taken place imply that additional savings would first have gone to increase the demand for domestic assets and later, with a significant lag, investment. The increase in national savings would have resulted in an accumulation of reserves by the central bank until they had been either consumed (a wealth effect resulting from the increase in asset prices) or invested (a consequence of asset prices increasing over their repositioning costs). However, debtor governments might have succumbed to the temptation to use the reserves to try to accelerate recovery, and all the debt relief would have ended up supporting a transitory expansion of consumption. The experience of countries that unilaterally reduced their interest payments to foreign creditors (for example, Peru since August 1985) is illustrative of this possibility.

In sum, additional debt relief--in the form of either new money or a reduction in interest payments--is likely to increase consumption rather than investment. Relief is often advocated on the basis that it will provide the resources needed for investment and steady growth, but the discussion ignores

that the net resource transfer of the last five years have significantly affected consumption. Further, the assessment of additional debt relief should take account of its deterrent effect on adjustment efforts. Some additional relief may have little effect on these efforts, but in most highly indebted countries, the complementarity of external financing and adjustment is already very limited and they will quickly substitute for each other.

4. Potential for Growth

Latin America's highly indebted countries must first confront the problem of recovering potential output, a good measure of which is average per capita GDP of 1979-81, and then confront the problem of sustaining high growth of per capita GDP (say as high as the average rate of 1950-81). Performance in the 1990s will then be determined by how quickly that recovery is achieved and thereafter by the rate of steady growth. If the 12 highly indebted countries were to recover potential output by 1990 and grew at the average rate of 1950-81, by the year 2000 per capita GDP would be about one third higher than in 1987 and about one fourth higher than in 1979-81.

Most countries can recover potential output by 1990. However, there are a few countries in which recovery of average per capita GDP of 1979-81 may take well beyond 1990 because of significant changes in the external environment, or because of very low rates of investment over several years (the possibility of destruction of capital as a result of natural disasters or war is not relevant in these countries). For example, Bolivia's current per capita GDP is 30 percent lower than the 1979-81 level; given the sharp deterioration in the prospects for its traditional exports, recovering full employment of labor would require large investment in new productions of

tradable goods and services. Another example is Argentina, where current per capita GDP is 12 percent lower than the 1979-81; the acceleration of recovery is conditioned by the availability of foreign exchange, but also by the decline in the productive capacity of sectors where private investment has been negligible for several years. In Argentina and Bolivia, and perhaps in Venezuela, performance in the 1990s could hardly improve over per capita GDP of 1979-81, which may well overestimate potential output.

In all highly indebted countries, the rate of steady growth could eventually surpass the average growth rate of 1950-81. In Table IV.3, gross investment ratios and incremental capital output ratios (ICORs) are presented for 1950-81 and subperiods. Notwithstanding the variability of both ratios in most countries, the averages could be attained in all countries (even in those where potential output has suffered a once-and-for-all reduction). Two examples illustrate this potential. In 1950-81, Brazil had the highest per capita GDP growth rate in the region (around 4 percent per year). Brazil's per capital GDP is now higher than the 1979-81 level (this average underestimates Brazil's potential output because of the large investments of the late 1970s). Will Brazil be able to resume growth at a steady rate of 4 percent per year? Brazil's growth in 1950-81 was based on one of the highest investment ratios in the region (around 25 percent of GDP), and a (relatively) stable ICOR of around 3.8. It may be difficult for Brazil to regain that high investment ratio because national savings would have to increase well above historical levels. However, a lower investment ratio can be offset by an increase in the productivity of capital, particularly in the public sector.

Table IV.3:

LATIN AMERICA: GROSS DOMESTIC INVESTMENT RATES AND INCREMENTAL CAPITAL OUTPUT RATIOS IN SELECTED COUNTRIES, 1960-1981

Country	1960-1965 a/		1966-1973 a/		1974-1981 b/		1960-1981	
	GDIc/	ICORd/	GDIc/	ICORd/	GDIc/	ICORd/	GDIc/	ICORd/
Argentina	16.9	5.5	20.2	4.5	20.9	16.0	18.8	7.0
Brazil	24.9	4.0	25.6	2.5	23.9	4.2	24.8	3.8
Colombia	21.3	4.7	19.2	3.1	18.4	3.9	20.0	3.9
Costa Rica	18.7	2.9	20.5	3.0	22.6	5.3	20.2	3.5
Chile	10.7	2.7	14.1	5.3	17.0	3.3	13.2	3.6
Mexico	18.6	3.0	21.5	3.3	25.4	3.8	21.1	3.2
Peru	22.1	4.0	16.0	4.7	31.7	10.9	23.0	5.0
Uruguay	14.0	11.6	10.4	6.4	13.8	3.2	13.0	5.8
Venezuela	43.0	6.2	30.4	5.5	29.8	16.6	36.3	7.8

Source: ECLAC, on the basis of official data.

Note: GDI = Gross Domestic Investment.
ICOR = Incremental Capital Output Ratio.

a/ 1970 prices.
b/ 1980 prices.
c/ Period average of ratio of gross domestic investment to gross domestic product.
d/ Ratio of the annual average rate of gross domestic investment to the trend growth rate of gross domestic product.

Chile's average growth rate of per capita GDP was 1.5 percent per year in 1950-81, and per capita GDP is now around 4 percent below the average the average of 1979-81. Chile has the potential for quickly recovering; it is expected that by the end of 1988 per capita GDP will be equal to the 1979-81. Further, recent overall economic performance (especially, the increasing levels of national savings and investment) indicates that an investment ratio of 22 percent of GDP may be sustainable. Even if the marginal productivity of capital did not further increase with respect to the average of 1950-81, that ratio could imply a growth rate of per capita GDP of at least 3 percent per year.

The challenge is then to accelerate recovery and realize that potential for growth. The rest of the world can facilitate its achievement by at least retiming the resource transfer to foreign creditors and creating the conditions for steady growth of an open world economy. That retiming will have to include both an initial reduction in the burden of the outstanding debt, which would accelerate recovery through an increase in consumption, and later the provision of financial resources to complement national savings in the financing of investment. Steady growth of the world economy would facilitate the sustained recovery of prices of most primary commodities and the smooth accommodation of increasing competition in the world production of manufactures and services.

However, Latin America's highly indebted countries will have to assume the challenge of domestic economic reform to promote macroeconomic stability (see Chapter II) and provide incentives for allocative efficiency, investment and innovation (see Chapter III). Without economic reform, the contribution of the rest of the world would allow only recovery of consumption and stagnation. Economic reform without the contribution of the rest of the world may turn out to be politically impossible.

STATISTICAL APPENDIX

TABLE A.1: MAIN ECONOMIC INDICATORS OF LATIN AMERICA AND THE CARIBBEAN

	Average 1970-79	Average 1980-87	1980	1981	1982	1983	1984	1985	1986	1987
Real GDP 1/	5.7	2.0	6.1	0.2	-1.0	-2.5	3.5	3.1	4.0	2.3
Per Capita Real GDP 1/	3.1	-0.4	2.8	-1.9	-3.5	-4.5	1.2	0.8	1.7	0.1
Gross Capital Formation 2/	23.5	19.3	23.4	22.8	20.7	17.0	17.1	17.6	18.3	17.5
Consumer Prices-Weighted Average 1/	34.8	98.1	64.8	60.7	66.8	108.2	131.9	143.2	88.4	130.8
Consumer Prices-Median Estimates 1/	11.6	13.1	19.2	14.7	9.5	8.8	12.0	15.0	11.4	14.7
Broad Money Aggregates 1/		101.0	62.2	71.0	74.4	104.8	141.9	136.5	84.6	132.5
Median Estimates		18.1	18.4	18.0	14.8	16.1	16.5	18.7	24.7	17.8
Central Government Fiscal Balances 2/		-4.4	-0.7	-4.1	-6.3	-5.9	-3.9	-3.5	-5.1	-5.7
Median Estimates		-4.2	-3.0	-6.3	-5.4	-5.1	-4.7	-3.0	-3.4	-3.9
Export Volumes 1/	1.9	3.3	2.1	6.5	-3.0	7.6	8.1	0.7	-0.9	5.2
Import Volumes 1/	8.8	-2.1	9.3	4.0	-17.6	-22.6	3.0	1.5	3.0	2.6
Export Unit Values 3/	18.0	0.6	28.6	0.1	-6.8	-6.3	2.3	-5.2	-15.3	7.7
Import Unit Values 3/	11.8	2.4	19.9	4.8	-2.1	-3.3	-1.4	-3.5	-1.3	6.4
Terms of Trade 1/	3.8	-2.1	7.2	-4.4	-4.8	-3.0	3.8	-2.8	-14.2	1.2
Non-Oil Commodity Prices 1/	16.5	-2.7	5.1	-14.4	-8.1	6.6	-0.4	-8.5	5.0	-6.4
Bananas 6/	8.6	2.3	15.1	7.0	-6.6	14.5	-13.9	2.9	3.9	-4.7
Bauxite 7/	14.2	2.5	39.2	1.8	-3.7	-13.8	-8.1	-0.4	NA	NA
Beef (Frozen) 8/	18.1	4.2	7.1	-17.5	9.7	-1.5	9.4	-4.7	27.1	NA
Beef (Corned) 8/	14.7	-2.1	23.5	-6.3	-26.0	-8.7	-9.7	-1.4	14.1	NA
Cocoa Beans 9/	22.8	-4.1	-23.9	-18.3	-22.0	21.7	26.7	-9.8	-3.1	NA
Coffee 9/	24.8	6.0	-7.1	-42.0	13.8	6.6	11.4	-7.8	66.7	NA
Coffee 10/	18.8	1.3	17.6	-24.7	10.6	-6.3	5.7	1.1	50.0	-44.0
Copper 11/	6.9	-0.1	10.7	-20.2	-16.0	7.6	-13.6	3.0	-3.4	30.0
Cotton 12/	14.8	2.2	12.3	-10.2	-13.7	20.7	NA	NA	NA	NA
Iron Ore 9/	8.4	-0.4	16.3	-9.7	6.5	-8.6	-3.6	-1.9	-3.4	1.6
Sugar 13/	25.1	13.3	196.9	-41.1	-50.2	0.7	-38.5	-22.1	49.3	11.5
Sugar 9/	18.7	8.3	148.0	-22.4	-44.3	0.5	-3.1	-27.4	6.5	NA
Tin 14/	17.9	-10.2	13.1	-16.6	-9.3	2.1	-5.5	-2.7	-52.2	NA
Wheat 9/	14.6	-3.9	28.2	11.7	-17.7	-14.0	-7.1	-11.3	-16.9	NA
Zinc 14/	12.6	0.7	0.2	14.6	-4.7	-6.4	25.3	-14.1	-9.3	NA
Zinc 15/	14.3	3.6	17.5	13.4	0.3	7.7	13.2	-12.3	-14.4	NA

1/ Annual changes, in percent.
2/ In percent of GDP.
3/ Annual changes, in percent of US dollars.
4/ In billions of US dollars.
5/ In percent, on 6-month deposits of US dollars.
6/ Origin: Latin America, Index base: US cents/pound.
7/ Origin: Guyana, Index base: US $/metric ton.
8/ Origin: Argentina, Index base: US cents/pound (Wheat: US $/bushel)
9/ Origin: Brazil, Index base: US cents/pound. (Coffee: Based on New York price for Brazilian coffee)
10/ Origin: Colombia, Index base: US cents/pound. (Coffee: Based on New York price for Colombian coffee)
11/ Based on London market price, Index base: US cents/pound.
12/ Origin: Mexico, Index base: US cents/pound.
13/ Origin: Caribbean, Index base: US cents/pound.
14/ Origin: Bolivia, Index base: US cents/pound.
15/ Origin: Peru, Index base: US cents/pound.

Source: IMF World Economic Outlook and International Financial Statistics, Various Issues.

TABLE A.1: MAIN ECONOMIC INDICATORS OF LATIN AMERICA AND THE CARIBBEAN

	Average 1970-79	Average 1980-87	1980	1981	1982	1983	1984	1985	1986	1987
Oil Export Unit Value 1/	27.0	3.0	63.5	9.9	-4.3	-11.9	-2.1	-5.0	-49.8	28.0
Export Unit Value of Manufactures 1/	10.6	3.7	10.4	-3.9	-2.1	-2.8	-8.0	1.1	18.0	12.0
Interest Rates (LIBOR) 5/	8.4	11.0	14.0	16.7	13.0	9.9	11.3	8.6	6.9	7.3
Current Account Transactions 4/										
Exports of Goods and Services			125.9	137.1	121.7	117.9	130.7	124.3	108.7	120.5
Imports of Goods and Services			140.8	155.9	130.6	98.0	100.8	98.6	99.6	106.2
Trade Balance			-14.9	-18.8	-8.9	19.9	29.9	25.7	9.1	14.3
Interest Payments			-26.4	-38.6	-45.9	-40.6	-44.3	-42.0	-36.5	-33.5
Other Investment Income, Net			10.3	13.0	11.1	8.0	9.5	3.7	7.3	6.0
Unrequited Transfers			1.2	1.5	1.2	1.8	2.4	2.9	3.7	3.9
Current Account Balance			-29.8	-42.9	-42.4	-10.9	-2.5	-4.7	-16.4	-9.3
Financing										
Use of Reserves			-8.4	1.0	19.9	-8.4	-12.4	-3.2	8.7	-4.9
Asset Transactions, net 16/			-2.0	-6.1	-6.9	-1.4	-6.5	-6.4	6.2	6.6
Errors and Omissions 17/			-9.3	-17.4	-18.0	-9.4	-2.7	-3.3	6.9	6.4
Non-Debt-Creating Flows 18/			6.2	7.5	6.4	3.4	3.7	4.7	2.6	3.5
Net External Borrowing			33.5	57.4	41.7	21.0	14.4	6.9	9.0	10.2
Long-Term Borrowing from Official Creditors 19/			8.9	4.8	5.0	8.4	8.8	7.4	9.3	11.3
Reserve-Related Liabilities 20/			1.7	1.2	10.3	7.2	2.9	1.7	6.1	6.8
Other Borrowing 21/			32.9	51.4	25.8	6.0	2.7	-2.2	-5.8	-1.8

1/ Annual changes, in percent.
4/ In billions of US dollars.
5/ In percent, on 6-month deposits of US dollars.
16/ Pertains primarily to export credit.
17/ Positioned here on the the presumption that estimates reflect primarily unrecorded capital outflows.
18/ Excludes private and official transfers which are included in the current account deficit.
19/ Estimates, based on IMF debt statistics of net disbursements by official creditors (other than monetary institutions) including the increase in official claims caused by the transfer of officially-guaranteed claims to the guarantor agency in the creditor country (usually in the context of debt reschedulings).
20/ Comprised of liabilities constituting foreign authorities' reserves (short-term borrowing by monetary authorities from other monetary authorities), use of Fund credit (including prospective programs), and arrears.
21/ Residually calculated. Except for discrepancies in coverage, amounts shown reflect mainly net external borrowing from private creditors and short-term flows.

Source: IMF World Economic Outlook and International Financial Statistics, Various Issues.

TABLE A.2: EXTERNAL DEBT OF LATIN AMERICA AND THE CARIBBEAN

	1980	1981	1982	1983	1984	1985	1986	1987 p/	1987 1/
	US$ Billions and Percentages								
TOTAL EXTERNAL DEBT (EDT)	242.2	295.5	332.0	359.7	376.9	386.4	399.4	352.0	418.1
Use of IMF Credit	1.3	1.5	2.9	8.8	11.5	14.6	16.8	18.1	18.1
Short-Term Debt	68.5	86.2	91.4	60.1	47.7	48.6	81.3	81.1 2/	81.1
Long-Term Debt	172.4	208.7	237.7	290.7	317.7	328.3	351.8	362.8	368.9
- Private Nonguaranteed	43.1	69.3	62.3	69.1	66.9	56.2	50.6	41.3	....
- Public and Publicly-Guaranteed	129.3	149.4	175.4	221.7	250.9	272.1	301.8	261.4	....
- Official Creditors	35.4	34.8	39.8	47.4	62.7	66.9	72.0	71.6	89.5
- Multilateral	14.2	16.5	19.7	21.9	25.4	29.9	36.0	37.7	....
IBRD	7.7	8.9	10.2	11.9	13.9	15.8	18.7	19.6	....
IDA	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.7	....
- Bilateral	16.2	18.4	20.1	25.5	27.3	31.0	35.9	33.3	....
- Private Creditors	93.9	114.6	135.6	174.3	198.2	211.1	229.8	190.4	279.4 3/
- Suppliers	5.7	6.4	5.8	7.5	7.2	8.0	8.5	6.4	....
- Financial Markets	93.2	109.2	129.8	166.8	191.0	203.1	220.3	183.9	264.4 4/
EDT: COMPOSITION (Percentages)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Use of IMF Credit	0.5	0.5	0.9	2.4	3.1	3.8	4.1	5.2	4.8
Short-Term Debt	28.3	28.8	27.5	16.7	12.6	11.3	7.8	8.8 2/	7.4
Long-Term Debt	71.2	70.6	71.6	80.8	84.3	85.0	88.1	86.0	88.2
- Private Nonguaranteed	17.8	20.1	18.8	19.2	17.7	14.6	12.7	11.7	....
- Public and Publicly-Guaranteed	53.4	50.6	52.8	61.6	66.6	70.4	75.4	74.3	....
- Official Creditors	12.6	11.8	12.0	13.2	14.0	15.8	18.0	20.2	21.4
- Multilateral	5.9	6.5	5.9	6.1	6.7	7.7	9.0	10.7	....
IBRD	3.2	3.0	3.1	3.3	3.7	4.1	4.7	5.6	....
IDA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	....
- Bilateral	6.7	6.2	6.0	7.1	7.2	8.0	9.0	9.5	....
- Private Creditors	40.8	38.8	40.8	48.5	52.6	54.6	57.4	54.1	66.8 3/
- Suppliers	2.4	1.8	1.7	2.1	1.9	2.1	2.1	1.8	....
- Financial Markets	38.5	37.0	39.1	46.4	50.7	52.0	55.3	52.2	43.9 4/

1/ Based on IMF figures in the World Economic Outlook and International Financial Statistics (February 1988).
2/ For 1987, figure is based on data in the IMF World Economic Outlook.
3/ For 1987 IMF data, figures include all private non-guaranteed debt on the presumption that this is owed mainly to private creditors.
4/ For 1987 IMF data, figures pertain only to the public and publicly guaranteed debt.

Source: World Bank, World Debt Tables, 1987-88 Edition.
p/ 1987 figures are World Bank projections based on the terms and commitments of loans as of December 1986.

TABLE A.2: EXTERNAL DEBT OF LATIN AMERICA AND THE CARIBBEAN

	1980	1981	1982	1983	1984	1985	1986	1987 p/	1987 1/
	US$ Billions and Percentages								
TOTAL LONG-TERM DEBT									
Debt Outstanding and Disbursed	172.4	208.7	287.7	290.7	317.7	328.3	351.8	302.8	368.9
Disbursements	44.0	60.9	50.6	31.0	28.6	20.1	19.8	....	....
Principal Repayments	21.3	22.5	21.3	15.1	14.5	13.5	15.2	....	....
Net Flows	22.8	38.4	29.8	15.9	14.0	6.6	4.6	....	....
- Private Non-Guaranteed Debt	8.1	15.8	4.3	-1.9	-0.6	-2.2	-2.0	....	....
- Public and Guaranteed Debt	18.7	22.5	25.0	17.8	14.6	8.8	6.6	....	....
- Official Creditors	4.1	4.9	5.3	4.7	5.7	4.7	5.7	....	....
- Private Creditors	12.8	17.7	19.7	13.1	8.9	4.1	0.8	....	....
Interest Payments	17.3	22.2	27.2	25.4	28.4	28.5	26.6	27.5	....
Net Transfers	5.5	16.1	2.1	-9.6	-14.3	-22.0	-22.0	....	....
- Private Non-Guaranteed Debt	1.6	9.1	-4.1	-8.7	-8.6	-8.1	-6.4	....	....
- Public and Guaranteed Debt	3.8	7.1	6.2	-0.8	-5.8	-13.8	-15.6	....	....
- Official Creditors	2.3	2.9	3.0	2.2	2.9	1.5	1.4	....	....
- Private Creditors	1.5	4.2	3.2	-3.1	-8.7	-15.3	-17.0	....	....
PRINCIPAL RATIOS (Weighted Average)									
Total External Debt									
EDT/XGS (%)	191.0	212.4	268.9	304.7	287.9	308.9	367.4	292.1 6/	347.0 6/
EDT/GNP (%)	35.7	38.2	48.4	60.7	60.9	52.8	61.3	52.8 7/	62.8 7/
INT/XGS (%) 5/	20.8	27.7	37.1	84.4	33.8	33.6	33.6	27.8 6/	27.8 6/
INT/GNP (%) 5/	3.9	5.0	6.7	6.9	7.2	6.8	5.6	5.0 7/	5.0 7/
Public and Publicly Guaranteed Debt (DOD)									
DOD/XGS (%)	102.0	107.4	142.1	187.8	191.7	217.5	277.1	....	....
DOD/GNP (%)	19.1	19.8	25.6	37.4	40.5	43.8	46.3	....	....
INT/XGS (%)	10.2	11.1	15.2	15.8	15.6	18.1	20.4	19.1 6/	....
INT/GNP (%)	1.9	2.0	2.7	3.1	3.3	3.7	3.4	3.5 7/	....

1/ Based on IMF figures in the World Economic Outlook and International Financial Statistics (February 1988).
5/ Interest payments on the total external debt are based on figures in the IMF World Economic Outlook.
6/ Exports of goods and services in 1987 is based on figures in the IMF World Economic Outlook.
7/ GNP in 1987 is assumed to increase 3.3% in US dollar terms based on figures in the IMF World Economic Outlook.

Source: World Bank, World Debt Tables, 1987-88 Edition.
p/ 1987 figures are World Bank projections based on the terms and commitments of loans as of December 1986.

Table B: ARGENTINA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	28.2	28.7	29.2	29.6	30.1	30.6	31.0	31.5
A. OUTPUT, ABSORPTION AND INCOME (Australes million, at 1980 Prices)								
1. GDP	28.3	26.3	25.1	25.8	26.5	25.3	26.7	26.9
(growth rate, %)	2.4	-6.8	-4.6	2.8	2.6	-4.5	5.3	0.8
(per capita, Australes)	1,000.9	918.2	861.8	871.9	880.6	828.3	859.0	852.4
Sectoral GDP								
- Agriculture	2.4	2.5	2.7	2.7	2.8	2.8	2.7	2.7
- Manufacturing	7.1	5.9	5.7	6.3	6.5	5.8	6.6	6.4
- Construction	2.0	1.7	1.7	1.8	1.5	1.4	1.5	1.5
2. Domestic Absorption	29.3	26.8	23.5	23.9	25.6	23.0	26.3	27.0
Private Consumption	18.9	18.3	16.6	16.6	18.3	16.8	18.9	19.4
(per capita, Australes)	667.6	638.7	570.6	559.9	608.0	549.8	609.4	613.9
Public Consumption	3.7	3.3	2.8	3.6	3.9	3.6	4.1	4.2
Private Fixed Investment	4.4	3.5	2.4	2.4	2.5	2.1	2.8	2.6
Public Fixed Investment	2.1	1.8	1.5	1.3	0.8	0.7	0.6	0.6
Change in Stocks	0.2	-0.1	0.2	0.0	-0.0	-0.2	-0.1	0.2
3. Current Account								
Resource Balance	-0.6	-0.3	0.7	0.9	0.9	1.4	1.0	0.7
- Exports GNFS	2.0	2.1	2.1	2.3	2.3	2.6	2.4	2.3
- Imports GNFS	2.6	2.4	1.4	1.4	1.4	1.2	1.4	1.5
Net Factor Income	-0.3	-0.7	-0.9	-1.0	-1.1	-1.0	-0.8	-0.8
4. Income (GNP)	28.0	25.3	23.8	24.3	24.8	23.8	25.8	26.1
(per capita, Australes)	991.5	882.3	816.0	819.1	823.9	777.4	831.0	827.0
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	86.6	81.5	78.2	78.1	83.8	79.9	85.9	88.2
Private	67.4	69.0	67.1	64.3	68.9	65.6	70.6	72.7
Public	13.2	12.5	11.1	13.8	14.9	14.3	15.3	15.5
2. Domestic Savings (DS)	19.4	18.5	21.8	21.9	16.2	20.1	14.1	11.8
National Savings (NS)	18.4	15.6	16.9	15.7	0.7	13.9	10.8	8.8
(NS as % of GNP)	18.6	16.0	17.8	16.7	10.4	14.9	11.2	9.1
- Private	16.6	22.9	26.1	23.3	14.3	12.0	7.6	5.5
- Public	1.8	-7.3	-9.2	-7.6	-4.6	1.9	3.2	3.3
3. Fixed Investment	23.0	20.3	15.5	14.2	12.6	11.0	12.8	12.1
Private	15.6	13.5	9.5	9.3	9.5	8.3	10.6	9.7
Public	7.4	6.8	6.0	4.9	3.1	2.7	2.2	2.4
4. DS Surplus (4=2-3)	-3.6	-1.9	6.4	7.6	3.6	9.1	1.3	-0.3
NS Surplus	-4.6	-4.8	1.5	1.5	-2.9	3.0	-2.0	-3.3
- Private	1.0	9.4	16.6	14.0	4.8	3.7	-3.0	-4.2
- Public	-5.6	-14.1	-15.2	-12.6	-7.7	-0.8	1.0	0.9

1/ Plus change in stocks.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	113.2	110.4	127.2	124.3	144.0	108.9	95.7
2. Exports: Prices	100.0	102.8	85.5	77.0	79.7	72.2	66.0	66.9
3. Imports: Volume	100.0	106.2	58.1	52.4	54.6	45.4	46.0	51.4
4. Imports: Prices	100.0	97.6	95.9	89.1	87.0	88.3	88.1	92.8
5. Terms of Trade	100.0	105.4	89.2	86.4	91.6	81.8	75.0	72.0
6. Real Exchange Rate	100.0	77.0	50.7	42.7	49.7	44.0	44.2	39.3
B. BALANCE OF PAYMENTS (US$ billion)								
1. Resource Balance	-3.3	-1.0	2.3	2.9	3.3	4.4	1.6	0.5
Exports GNFS	10.8	11.5	9.5	9.5	10.0	10.2	8.7	8.6
Imports GNFS	14.0	12.5	7.2	6.6	6.7	5.9	7.0	8.1
2. Interest Payments	2.2	4.0	4.9	5.4	5.5	5.1	4.3	4.1
3. Current Account	-4.8	-4.7	-2.4	-2.5	-2.4	-1.0	-2.8	-4.0
Direct Investment	0.8	0.9	0.3	0.2	0.3	0.9	0.6	0.1
Change in Foreign Debt	2.7	6.0	4.4	8.7	1.2	3.1	2.8	3.2
Use Net Reserves	2.8	3.5	0.8	-1.4	-0.2	-1.9	0.8	0.8
Other Financing	-1.8	-5.8	-3.0	-5.0	1.1	-1.2	-1.4	-0.1
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	27.2	36.7	43.6	45.1	46.9	48.3	51.7	54.8
Debt (US$ billion, 1980 prices)	27.2	32.7	39.2	40.0	40.6	42.1	46.4	47.8
Real debt growth (%)	13.6	20.3	19.9	2.0	1.6	3.5	10.2	3.2
Real cost of debt (%)	-	10.8	20.4	22.6	9.1	15.1	13.3	4.7
Debt/GDP (current exchange rate)	17.3	28.7	76.6	69.5	60.1	73.4	55.5	85.4
Debt/GDP (1980 PPP exchange rate)	17.3	22.2	26.8	25.9	25.3	26.4	26.2	26.8
2. Interest Payments								
As % GDP (current exchange rate)	1.4	3.2	8.6	8.4	7.1	7.8	5.5	6.5
As % GDP (1980 PPP exchange rate)	1.4	2.6	3.0	3.1	3.0	2.8	2.0	2.2
As % Exports GNFS	20.2	34.2	51.7	57.0	55.2	50.1	49.7	48.2
3. Resource Balance								
As % Int. Payments	-149.8	-25.1	47.3	54.0	59.9	84.8	38.0	11.5
As % Total Debt	-12.0	-2.8	5.3	6.5	7.1	9.0	3.2	0.9

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	38.6	34.7	32.3	34.3	34.8	40.5	38.0	39.3
2. Current Expenditure	34.5	39.4	39.8	42.1	38.3	40.6	36.5	36.0
Public Consumption	21.7	21.4	20.7	25.2	23.5	25.5	23.0	22.6
Interest Payments	3.5	7.4	10.4	5.9	5.0	5.5	3.7	3.4
- Internal	2.7	5.2	5.7	0.9	0.8	0.8	0.3	0.7
- External	0.8	2.2	4.7	6.0	4.2	4.7	3.4	2.7
Transfers	9.3	10.6	8.7	11.0	9.8	9.5	9.8	10.0
3. Current Savings	1.1	-4.7	-7.5	-7.8	-3.5	-0.1	1.5	3.3
4. Capital Expenditure	9.6	9.8	8.5	9.5	8.0	5.9	7.4	7.9
5. Public Sector Deficit	8.5	14.5	16.0	17.3	11.5	7.0	5.9	4.6
(excluding interest payments)	5.0	7.1	5.6	11.4	6.0	1.5	2.2	1.2
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	3.5	5.1	4.8	16.6	2.5	2.2	1.6	2.0
8. Total Deficit (=5+7)	12.0	19.8	20.8	33.9	14.0	9.2	7.5	6.5
9. Inflation Tax (M1)	6.4	8.9	14.8	29.0	34.3	16.9	4.8	9.1
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	84.8	112.5	749.0	356.4	435.7	386.9	34.7	54.3
Money (M1)	92.9	74.1	244.7	363.9	501.6	571.5	84.8	50.5
Domestic Credit (net of quasi money)	155.6	297.8	288.9	391.8	481.8	-	-	-
2. Prices (Dec/Dec)								
CPI	87.6	131.2	209.7	433.7	688.0	385.4	81.9	178.3
Exchange Rate	25.0	260.0	573.6	379.6	668.4	347.9	57.8	198.3
3. Nominal Interest Rate (lending rate)	99.9	287.1	242.4	682.4	748.0	621.4	105.8	-
Real Interest Rate	6.1	32.8	16.6	46.6	8.2	51.0	17.7	-

Table C: BOLIVIA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.7
A. OUTPUT, ABSORPTION AND INCOME (Bolivianos at 1980 Prices)								
1. GDP	122,947	123,046	117,737	109,569	108,743	107,281	103,695	105,035
(growth rate, %)	-0.9	0.1	-4.3	-6.9	-0.8	-1.3	-3.3	1.3
(per capita, Bolivianos)	0.022	0.021	0.020	0.018	0.017	0.017	0.016	0.016
Sectoral GDP								
- Agriculture	22,561	22,348	23,326	17,507	20,782	21,417	20,365	20,367
- Mining (incl Oil)	19,410	19,290	18,339	18,108	15,602	13,957	12,134	11,351
- Manufacturing	17,974	16,664	14,344	13,387	11,814	10,729	10,622	11,217
- Construction	4,521	4,025	3,928	3,751	3,500	3,591	3,692	3,913
- Services	54,387	56,374	55,331	55,246	55,202	55,305	54,140	54,786
2. Domestic Absorption	116,607	124,461	111,592	105,220	103,924	112,189	101,061	102,750
Private Consumption	81,989	94,317	81,555	81,525	76,208	90,099	81,232	81,322
(per capita, Bolivianos)	0.016	0.016	0.014	0.013	0.012	0.014	0.012	0.012
Public Consumption	17,258	14,887	18,616	19,859	20,579	17,691	11,969	14,075
Private Fixed Investment	9,007	4,680	5,866	2,128	1,817	1,303	4,161	3,424
Public Fixed Investment	8,557	9,839	7,792	5,542	4,065	3,954	4,528	3,928
Change in Stocks	-204	738	-2,237	-3,834	1,305	-358	-829	1
3. Current Account								
Resource Balance	5,340	-984	6,826	4,924	5,978	-3,558	-3,044	-3,917
- Exports GNFS	25,900	25,977	24,479	22,972	22,155	19,811	15,381	12,690
- Imports GNFS	19,560	26,961	17,653	18,048	16,177	23,369	18,405	16,607
Net Factor Income	-7,250	-8,020	-8,943	-7,870	-7,129	-8,476	-7,400	-7,012
4. Income (GNP)	115,697	115,018	108,794	101,699	101,614	98,805	96,295	98,023
(per capita, Bolivianos)	0.021	0.020	0.018	0.017	0.016	0.015	0.015	0.015
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	80.6	89.0	84.1	90.5	92.4	97.9	94.1	96.0
Private	66.5	77.3	68.4	73.7	71.9	84.8	83.9	84.0
Public	14.0	11.8	15.7	16.7	20.5	13.1	10.2	12.0
2. Domestic Savings (DS)	19.4	11.0	15.9	9.5	7.6	2.1	5.9	4.0
National Savings (NS)	13.5	4.7	8.3	2.8	2.0	-4.8	-1.5	-3.1
(NS as % of GNP)	14.4	5.0	9.0	3.0	2.1	-5.1	-1.6	-3.4
- Private	15.8	5.3	17.2	19.4	22.2	2.4	-0.8	2.4
- Public	-2.2	-0.6	-8.9	-16.6	-20.3	-7.1	-0.7	-5.6
3. Fixed Investment	14.3	11.6	11.6	6.7	4.7	4.3	9.0	8.0
Private	7.3	3.8	5.0	2.0	1.6	1.2	4.7	4.1
Public	7.0	7.7	6.5	4.6	3.1	3.0	4.3	3.9
4. DS Surplus (4=2-3)	5.2	-0.6	4.3	2.9	2.9	-2.2	-3.1	-3.9
NS Surplus	-0.7	-6.9	-3.2	-3.8	-2.8	-9.0	-10.6	-11.1
- Private	8.4	1.4	12.2	17.4	20.6	1.1	-5.5	-1.7
- Public	-9.2	-8.3	-16.4	-21.2	-23.4	-10.2	-5.0	-9.4

1/ Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	98.5	92.7	84.6	79.6	67.9	78.5	62.8
- Tin (Mettalic)	100.0	131.7	131.2	96.2	109.8	82.3	57.7	62.6
- Tin (Concentrated)	100.0	66.5	39.0	30.2	56.1	53.3	103.7	112.5
- Zinc	100.0	96.6	96.3	89.4	79.7	73.4	76.9	81.8
- Silver	100.0	115.9	85.8	89.8	45.5	29.5	89.2	132.2
- Natural Gas	100.0	107.6	112.6	109.2	108.4	108.6	108.6	87.5
2. Exports: Prices	100.0	98.3	94.7	94.8	96.6	97.3	73.8	75.7
3. Imports: Volume	100.0	150.4	98.5	91.6	78.5	89.9	102.6	112.8
4. Imports: Prices	100.0	96.5	87.4	92.0	90.5	89.3	100.9	106.9
5. Terms of Trade	100.0	101.9	108.4	103.1	106.8	109.0	73.1	71.8
6. Real Exchange Rate	100.0	125.9	136.6	125.6	172.2	268.9	82.1	77.2
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	228.2	-110.0	223.3	156.7	214.9	11.5	-189.9	-164.3
Exports GNFS	1,023.6	999.6	904.0	852.2	812.0	721.4	663.6	611.9
Imports GNFS	795.4	1,109.6	680.7	685.5	597.1	709.9	853.5	766.2
2. Interest Payments	261.0	331.2	290.5	300.3	292.1	152.6	143.7	134.3
3. Current Account	-54.1	-492.0	-219.1	-204.1	-194.5	-347.4	-481.8	-455.3
Direct Investment	43.9	75.6	31.0	6.9	7.0	10.0	10.0	20.0
Change in Foreign Debt	317.3	438.7	647.3	555.3	25.2	343.7	256.0	248.0
Use Net Reserves	-95.8	158.8	73.2	-288.5	-147.5	-56.9	-220.8	74.1
Other Financing	-211.3	-181.1	-22.4	-69.6	309.8	50.6	436.6	113.2
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	2.7	3.1	3.2	3.8	3.8	3.9	4.3	4.6
Debt (US$ billion, 1980 prices)	2.7	2.9	2.8	3.3	3.3	3.4	3.9	4.0
Real debt growth (%)	-7.2	5.9	-0.5	17.7	-0.5	3.1	12.7	3.4
Real cost of debt (%)	-	13.4	15.5	2.8	7.9	7.1	10.8	-0.7
Debt/GDP (current exchange rate)	53.8	48.5	51.7	59.0	36.6	55.8	103.0	109.8
Debt/GDP (1980 PPP exchange rate)	53.8	56.7	56.5	69.7	68.9	69.3	76.5	78.1
2. Interest Payments								
As % GDP (current exchange rate)	5.2	5.2	4.7	4.7	2.8	2.7	3.4	3.2
As % GDP (1980 PPP exchange rate)	5.2	6.0	5.2	6.5	5.2	2.9	2.5	2.3
As % Exports GNFS	25.6	33.1	32.1	35.2	36.0	22.5	21.7	21.9
3. Resource Balance								
As % Int. Payments	87.4	-33.2	76.9	55.5	73.6	7.1	-132.2	-114.9
As % Total Debt	8.4	-3.5	7.0	4.4	5.6	0.3	-4.1	-3.4

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES 1/ (as % of GDP at current prices)								
1. Current Revenue	13.2	14.8	16.8	6.3	4.0	8.9	16.8	16.4
2. Current Expenditure	16.0	17.4	22.4	24.0	22.1	17.2	17.1	18.7
Public Consumption	-	-	-	-	-	-	-	-
Interest Payments	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	-	-	-	-	-	-	-	-
3. Current Savings	-2.2	-0.8	-8.9	-16.6	-20.3	-7.1	-0.7	-5.6
4. Capital Expenditure 2/	7.1	7.5	7.6	5.3	4.0	3.0	4.3	5.0
5. Public Sector Deficit	9.1	7.8	15.9	17.7	24.0	9.9	3.9	9.7
(excluding interest payments) 3/	-	-	-	-	-	-	-	-
6. Financing	9.1	7.6	15.9	17.7	24.0	9.9	3.9	9.7
- Internal	4.0	-4.7	16.6	18.4	19.0	6.1	-1.3	4.5
- External 4/	5.1	12.3	-0.8	-0.7	5.0	3.8	5.3	5.2
7. Central Bank Losses	=	=	=	=	=	=	=	=
8. Total Deficit (=5+7)	=	=	=	=	=	=	=	=
9. Inflation Tax (M1)	=	=	=	=	=	=	=	=
10. Total Public Debt	=	=	=	=	=	=	=	=
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	39.8	17.0	293.5	266.0	1,615.4	5,969.0	89.1	-
Money (M1)	42.7	19.7	228.4	207.1	1,798.5	5,795.8	82.9	-
Domestic Credit (net of quasi money)	36.7	22.1	398.5	186.9	1,074.4	1,026.9	-355.8	-
2. Prices (Dec/Dec)								
CPI	23.9	25.2	296.5	328.5	2,177.2	8,178.5	66.0	18.5
Exchange Rate	.0	.0	700.0	155.1	1,700.0	18,700.0	13.7	14.9
3. Nominal Interest Rate (lending rate)	=	=	=	=	=	=	=	=
Real Interest Rate	-	-	-	-	-	-	-	-

1/ Current revenue and expenditure is for the Central Administration, Social Security, other decentralized agencies, and local government operations. The rest of the data includes the nonfinancial state enterprises.
2/ Also includes net lending.
3/ Also includes capital revenue.
4/ Also includes short-term foreign loans.

Table D: BRAZIL: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	121.3	124.0	126.8	129.7	132.6	135.6	138.5	141.6
A. OUTPUT, ABSORPTION AND INCOME (Cruzados million, at 1980 Prices)								
1. GDP	12,539	12,216	12,328	12,016	12,701	13,750	14,877	15,323
(growth rate, %)	9.1	-3.4	0.9	-2.5	5.7	8.3	8.2	3.0
(per capita, Cruzados)	104	98	97	93	96	101	107	108
Sectoral GDP								
- Agriculture	1,232	1,308	1,282	1,305	1,346	1,466	1,358	-
- Manufacturing	3,601	3,227	3,213	3,016	3,201	3,467	3,858	-
- Construction	813	750	742	637	554	727	856	-
- Services	6,493	5,466	5,596	5,563	5,884	6,333	6,908	-
2. Domestic Absorption	12,918	12,043	12,198	11,547	11,786	12,968	14,327	-
Private Consumption	8,942	8,475	8,655	8,670	8,768	9,434	10,594	-
(per capita, Cruzados)	74	68	68	67	66	70	76	-
Public Consumption	1,139	1,129	1,296	1,152	1,047	1,334	1,270	-
Gross Domestic Investment	2,836	2,439	2,249	1,724	1,971	2,200	2,463	-
3. Current Account								
Resource Balance	-279	133	82	460	800	919	484	-
- Exports GNFS	1,121	1,360	1,235	1,412	1,724	1,843	1,446	-
- Imports GNFS	1,400	1,227	1,153	952	924	924	962	-
Net Factor Income	-404	-501	-663	-695	-718	-720	-560	-
4. Income (GNP)	12,235	11,714	11,666	11,321	11,983	13,030	14,317	-
(per capita, Cruzados)	101	94	92	87	90	96	103	-
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	80.2	78.2	80.1	80.5	77.9	76.9	76.9	-
Private	71.2	69.0	69.6	70.9	69.6	67.2	67.0	-
Public	9.0	9.2	10.5	9.6	8.2	9.7	9.9	-
2. Domestic Savings (DS)	19.8	21.8	19.9	19.5	22.1	23.1	23.1	-
National Savings (NS)	16.6	17.7	14.5	13.7	16.6	17.9	19.3	-
(NS as % of GNP)	17.2	18.5	16.3	14.5	17.5	18.9	20.1	-
- Private	14.4	15.5	12.7	12.8	15.8	18.7	17.2	-
- Public	2.2	2.2	1.8	0.9	0.7	-0.8	2.1	-
3. Fixed Investment	22.0	22.2	20.5	17.1	16.5	18.0	18.1	-
Private	12.2	14.5	13.1	11.6	11.3	12.6	-	-
Public	9.8	7.6	7.5	5.5	5.2	5.4	-	-
4. DS Surplus (4=2-3)	-2.2	-0.4	-0.7	2.4	5.6	5.1	5.0	-
NS Surplus	-5.4	-4.5	-6.1	-3.4	0.1	-0.1	1.2	-
- Private	2.2	0.9	-0.4	1.2	4.5	6.1	-	-
- Public	-7.6	-5.4	-5.7	-4.6	-4.5	-6.2	-	-

1/ Plus change in stocks. In 1984-87, change in stocks is not available.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	117.2	107.0	109.0	130.0	135.0	121.0	139.3
- Coffee	100.0	106.5	114.0	120.0	130.0	129.0	71.0	-
- Soybeans	100.0	135.5	101.0	122.0	114.0	147.0	92.0	-
- Iron ore	100.0	108.6	103.0	96.0	115.0	119.0	114.0	-
- Sugar	100.0	107.6	101.0	98.0	118.0	100.0	91.0	-
- Manufactures	100.0	-	166.0	226.0	309.0	279.0	232.0	-
2. Exports: Prices	100.0	105.9	94.0	99.9	103.1	94.6	105.3	121.8
3. Imports: Volume	100.0	92.7	85.0	77.0	75.0	68.0	84.0	86.3
4. Imports: Prices	100.0	111.1	100.0	87.7	80.7	84.2	72.5	77.9
5. Terms of Trade	100.0	95.3	94.0	113.8	127.8	112.2	145.1	156.4
6. Real Exchange Rate	100.0	121.5	128.4	104.2	104.3	100.1	94.5	95.2
B. BALANCE OF PAYMENTS (US$ billion)								
1. Resource Balance	-5.9	-1.6	-2.8	4.1	11.3	10.8	6.2	8.6
Exports GNFS	21.9	25.6	22.0	23.6	28.9	27.7	24.3	27.8
Imports GNFS	27.8	27.2	24.8	19.5	17.6	16.9	18.1	19.2
2. Interest Payments	7.9	10.3	11.5	9.3	8.9	9.0	9.0	6.4
3. Current Account	-12.8	-11.8	-16.3	-6.8	0.0	-0.3	-4.9	-1.5
Direct Investment	1.5	2.3	2.5	1.4	1.6	1.3	0.3	0.6
Change in Foreign Debt	5.1	8.0	8.8	7.8	8.3	1.5	6.1	4.7
Use Net Reserves	3.7	-0.8	6.8	0.6	-4.9	0.1	3.6	0.0
Other Financing	2.5	2.3	-1.9	-2.9	-5.0	-2.6	-5.1	-3.8
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	70.3	80.0	91.3	97.8	103.5	106.7	110.7	113.9
Debt (US$ billion, 1980 prices)	70.3	73.3	82.0	86.8	89.7	92.9	99.2	99.5
Real debt growth (%)	2.1	4.3	11.8	5.8	3.4	3.6	6.8	0.2
Real cost of debt (%)	-	4.8	26.8	13.6	11.0	11.5	8.8	-5.9
Debt/GDP (current exchange rate)	29.5	36.1	34.1	47.7	49.3	47.1	39.4	37.2
Debt/GDP (1980 PPP exchange rate)	29.5	31.7	33.6	35.6	34.3	31.6	29.5	28.8
2. Interest Payments								
As % GDP (current exchange rate)	3.3	3.9	4.3	4.5	4.2	4.0	3.2	2.1
As % GDP (1980 PPP exchange rate)	3.3	4.1	4.2	3.4	2.9	2.7	2.4	1.6
As % Exports GNFS	36.1	40.2	52.4	39.4	30.8	32.5	37.0	23.0
3. Resource Balance								
As % Int. Payments	-75.1	-15.5	-24.3	43.8	127.4	119.8	69.0	134.4
As % Total Debt	-8.4	-2.0	-3.1	4.2	10.8	10.1	5.6	7.6

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	42.2	36.2	37.8	36.3	34.8	34.3	-	-
2. Current Expenditure	42.1	35.1	38.6	39.0	37.9	42.8	-	-
Public Consumption	22.8	20.6	21.5	21.6	19.8	20.6	-	-
Interest Payments	1.9	2.2	3.5	4.2	6.3	10.9	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	17.5	12.3	13.6	13.2	11.8	11.3	-	-
3. Current Savings	0.8	3.0	1.2	.3	-1.2	-6.2	-	-
4. Capital Expenditure	10.5	7.6	7.5	5.5	5.2	5.4	-	-
5. Public Sector Deficit	12.2	3.9	5.9	5.6	6.9	12.1	-	-
(excluding interest payments	10.3	1.7	2.4	1.4	0.6	1.2	-	-
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	7.7	6.7	6.4	8.6	8.1	10.0	3.9	14.8
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	57.3	70.5	86.6	106.0	227.9	250.9	293.5	185.1
Money (M1)	69.7	82.7	58.4	95.2	198.5	334.7	303.8	135.0
Domestic Credit (net of quasi money)	87.7	90.6	104.1	168.7	151.4	290.8	-	-
2. Prices (Dec/Dec)								
CPI	95.3	91.2	97.9	172.8	203.3	228.0	58.6	396.0
Exchange Rate	56.0	93.9	97.7	288.9	223.6	229.5	42.0	385.1
3. Nominal Interest Rate (lending rate)	-	104.9	159.2	199.4	300.6	304.9	90.0	-
Real Interest Rate	-	30.9	27.4	24.3	23.7	23.6	15.9	-

Table E: CHILE: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5
A. OUTPUT, ABSORPTION AND INCOME (Pesos billion, at 1977 Prices)								
1. GDP	363.4	383.6	329.5	327.2	347.9	356.4	376.6	396.9
(growth rate, %)	7.8	5.6	-14.1	-.7	6.3	2.4	5.7	5.4
(per capita, Pesos thousand)	32.6	33.9	28.6	27.9	29.2	29.4	30.5	31.7
Sectoral GDP								
- Agriculture	27.9	28.7	28.1	27.1	29.0	30.6	33.3	34.6
- Fishing	2.1	2.5	2.7	3.0	3.3	3.5	3.8	3.4
- Mining (incl. oil)	25.1	28.1	29.7	29.1	30.4	31.1	31.5	31.4
- Manufacturing	78.3	80.3	53.5	55.5	71.9	72.7	78.5	82.9
- Construction	19.4	23.5	17.9	17.0	17.7	20.5	20.9	23.1
2. Domestic Absorption	387.8	433.0	328.8	313.7	340.3	333.8	351.7	377.3
Private Consumption	256.1	283.6	249.2	240.7	243.8	241.0	252.7	265.4
(per capita, Pesos thousand)	23.0	25.0	21.6	20.6	20.5	19.9	20.5	21.2
Public Consumption	44.9	43.5	42.9	42.7	43.3	43.2	42.3	41.3
Gross Fixed Investment	64.1	74.8	49.4	42.1	45.9	52.5	56.3	64.9
Change in Stocks	22.7	31.1	-12.7	-11.8	7.3	-3.0	0.3	5.7
3. Current Account								
Resource Balance	-24.4	-49.4	0.7	13.5	7.7	22.7	25.0	19.3
- Exports GNFS	86.1	78.4	82.1	82.6	88.2	94.3	103.5	110.6
- Imports GNFS	110.5	127.8	81.4	69.1	80.5	71.6	78.5	91.3
Net Factor Income	-13.0	-19.4	-26.3	-25.9	-34.5	-29.6	-29.9	-24.1
4. Income (GNP)	350.5	365.4	301.8	301.3	313.4	326.9	335.6	372.8
(per capita, Pesos thousand)	31.5	32.3	26.2	25.7	26.3	27.0	27.2	29.7
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	87.5	91.8	87.2	85.3	88.7	83.0	81.6	81.7
Private	75.1	78.6	71.9	71.1	74.2	68.8	69.0	70.7
Public	12.4	13.2	15.3	14.2	14.5	14.2	12.6	11.0
2. Domestic Savings (DS)	12.5	8.2	12.8	14.7	11.3	17.0	18.4	18.3
National Savings (NS)	9.1	3.8	5.0	6.1	1.1	5.1	7.2	10.0
(NS as % of GNP)	9.4	4.0	5.5	6.7	1.2	5.8	8.1	10.9
- Private	-1.5	-1.4	6.3	6.1	0.5	1.3	2.3	5.2
- Public	10.6	5.2	-1.3	-0.0	0.6	3.9	4.9	4.8
3. Fixed Investment	16.6	18.6	14.6	12.0	12.3	14.2	14.6	15.2
Private	11.4	13.5	9.9	7.3	6.3	7.2	7.1	7.7
Public	5.2	5.1	4.7	4.7	6.0	7.0	7.5	7.5
4. DS Surplus (4=2-3)	-4.2	-10.3	-1.9	2.7	-1.0	2.8	3.8	3.1
NS Surplus	-7.5	-14.8	-9.6	-5.9	-11.2	-9.1	-7.4	-5.2
- Private	-14.0	-14.9	-3.6	-1.2	-5.8	-5.9	-4.8	-2.5
- Public	6.4	0.1	-6.0	-4.7	-5.4	-3.2	-2.6	-2.7

1/ Plus change in stocks.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	96.6	109.7	115.5	115.6	128.1	137.6	145.2
- Mining Products	100.0	100.1	109.7	111.5	111.4	121.2	121.8	-
- Agricultural and Sea	100.0	104.0	117.6	120.0	138.2	166.7	196.5	-
- Industrial	100.0	88.7	108.0	121.7	118.0	131.9	156.2	-
2. Exports: Prices	100.0	86.5	72.4	71.1	57.8	53.5	65.3	78.5
3. Imports: Volume	100.0	121.0	76.5	66.1	76.5	56.2	71.3	87.2
Consumption Goods	100.0	142.0	90.6	63.0	66.4	41.0	44.1	-
Capital Goods	100.0	123.7	61.2	34.6	54.0	60.2	64.7	-
Intermediate Goods	100.0	111.2	75.7	78.1	88.3	78.8	84.8	-
4. Import: Prices	100.0	102.7	96.1	81.3	81.5	80.9	79.6	101.9
5. Terms of Trade	100.0	84.3	86.4	87.5	83.2	78.5	82.0	77.0
6. Real Exchange Rate	100.0	116.0	101.6	86.8	85.3	68.8	58.1	54.0
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-1,153	-3,378	-492	534	-141	511	712	605
Exports GNFS	5,969	5,009	4,642	4,829	4,494	4,469	5,040	5,980
Imports GNFS	7,122	8,387	5,134	4,095	4,635	3,968	4,328	5,375
2. Interest Payments	932	1,434	1,756	1,349	1,793	1,702	1,740	1,420
3. Current Account	-1,971	-4,732	-2,364	-1,118	-2,060	-1,329	-1,092	-892
Direct Investment	170	362	384	132	67	62	57	60
Change in Foreign Debt	2,073	3,226	1,297	2,283	1,142	1,051	786	672
Use Net Reserves	1,244	67	-1,165	-541	17	-4	-154	180
Other Financing	-1,516	1,083	1,788	-756	834	93	148	41
C. CREDITWORTHINESS								
1. Total Debt (US$ bill.)	12.1	15.7	17.3	18.2	20.0	20.4	20.7	21.0
Debt (US$ billion, 1980 prices)	12.1	14.4	15.6	16.1	17.3	17.8	18.6	18.3
Real debt growth (%)	13.4	18.8	8.3	3.6	7.1	2.8	4.6	-1.4
Real cost of debt (%)	-	19.2	33.4	17.1	14.7	13.4	8.3	-13.0
Debt/GDP (current exchange rate)	43.9	48.1	71.3	92.1	164.0	127.7	123.3	114.6
Debt/GDP (1980 PPP exchange rate)	43.9	49.2	59.5	66.5	66.1	58.0	54.4	50.9
2. Interest Payments								
As % GDP (current exchange rate)	3.4	4.4	7.2	6.8	9.3	10.6	10.3	7.8
As % GDP (1980 PPP exchange rate)	3.4	4.5	6.0	4.6	6.4	4.8	4.6	3.4
As % Exports GNFS	16.6	28.2	37.7	29.1	39.9	38.1	34.5	23.7
3. Resource Balance								
As % Int. Payments	-123.7	-235.6	-28.1	39.6	-7.9	30.0	40.9	42.6
As % Total Debt	-9.5	-20.9	-2.8	2.9	-0.7	2.5	3.4	2.9

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	36.9	34.2	33.9	33.5	34.3	36.7	31.9	-
2. Current Expenditure	26.3	29.0	35.2	33.5	33.7	32.9	27.0	-
Public Consumption	13.0	11.8	12.2	10.7	10.4	9.7	8.4	-
Interest Payments	1.5	1.5	2.3	3.9	4.7	5.7	2.4	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	11.9	15.8	20.6	19.0	18.6	17.4	16.2	-
3. Current Savings	10.6	5.2	-1.3	-0.0	0.6	3.9	4.9	-
4. Capital Expenditures	5.2	5.1	4.7	4.8	6.0	7.1	7.5	-
5. Public Sector Deficit	-6.1	-0.8	3.4	3.0	4.3	2.5	1.8	-
(excluding interest payments	-7.6	-2.3	1.1	-0.9	-0.4	-3.1	-0.5	-
6. Financing	-6.1	-0.8	3.4	3.0	4.3	2.6	1.8	-
- Internal	-5.4	-3.6	1.1	4.1	1.7	-1.4	1.4	-
- External	0.1	2.8	2.2	-1.1	2.7	4.0	0.4	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	1.9	0.6	1.3	1.4	1.3	1.3	0.8	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	38.9	-9.2	-25.5	18.2	21.8	8.6	-	-
Money (M1)	56.8	-6.0	9.4	26.6	13.1	11.3	41.4	-
Domestic Credit (net of quasi money)	41.9	15.7	107.8	16.5	40.3	-	-	-
2. Prices (Dec/Dec)								
CPI	31.2	9.5	20.7	23.6	23.0	26.4	17.4	22.9
WPI	28.1	-3.9	39.6	25.2	36.5	30.3	18.2	17.1
Exchange Rate	0.0	0.0	88.3	19.2	46.5	43.4	11.4	16.3
3. Nominal Interest Rate (lending rate)	47.1	52.0	63.9	42.8	38.3	40.4	26.2	-
Real Interest Rate	12.1	38.8	35.8	16.6	12.4	11.1	7.5	-

Table F: COLOMBIA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	25.9	26.4	27.0	27.5	28.1	28.6	29.2	29.8
A. OUTPUT, ABSORPTION AND INCOME (Pesos million, at 1980 Prices)								
1. GDP	1,579	1,615	1,630	1,656	1,712	1,753	1,843	1,944
(growth rate, %)	4.1	2.3	0.9	1.6	3.4	2.4	5.1	5.5
(per capita, Pesos thousand)	61	61	60	60	61	61	63	65
Sectoral GDP								
- Agriculture	305	315	310	318	327	337	353	367
- Industry	396	399	395	411	433	457	496	527
- Construction	71	77	80	90	96	99	94	98
- Services	720	746	764	767	774	784	812	850
2. Domestic Absorption	1,572	1,556	1,713	1,739	1,758	1,778	1,786	1,856
Private Consumption	1,112	1,153	1,186	1,219	1,251	1,288	1,275	1,321
(per capita, Pesos thousand)	43	44	44	44	45	45	44	44
Public Consumption	159	165	173	172	177	167	175	174
Gross Fixed Investment	255	282	290	293	293	286	300	325
Change in Stocks	36	56	64	55	37	37	36	36
3. Current Account								
Resource Balance	7	-41	-82	-83	-48	-19	57	88
- Exports of GNFS	272	245	250	220	246	268	340	375
- Imports of GNFS	265	286	332	303	294	287	273	287
Net Factor Income	-10	-19	-33	-39	-56	-70	-85	-99
4. Income (GNP)	1,569	1,595	1,597	1,617	1,654	1,689	1,756	1,845
(per capita, Pesos thousand)	61	60	59	59	59	59	60	62
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	82.8	86.9	88.7	88.6	86.3	84.8	79.5	78.7
Private	72.7	76.5	77.8	77.7	75.4	74.0	71.6	69.0
Public	10.1	10.4	10.9	11.0	10.9	10.7	7.9	9.7
2. Domestic Savings (DS)	17.2	13.1	11.3	11.4	13.7	15.2	20.5	21.3
National Savings (NS)	16.6	12.3	9.6	9.5	10.9	11.6	15.4	16.0
(as % of GNP)	16.7	12.4	9.8	9.6	11.2	12.1	16.2	16.9
- Private	13.9	10.7	9.3	7.0	7.8	6.1	7.1	10.6
- Public	2.6	1.5	0.3	2.5	3.1	5.5	8.3	5.4
3. Fixed Investment	16.8	17.7	17.5	17.2	17.0	16.6	15.5	18.3
- Private	9.7	10.4	9.8	7.1	8.2	8.0	8.8	9.4
- Public	7.1	7.3	7.7	10.1	8.8	8.5	6.8	8.9
4. DS Surplus (4=2-3)	0.4	-4.6	-6.2	-5.8	-3.3	-1.3	4.9	2.9
NS Surplus	-0.2	-5.4	-7.8	-7.7	-6.0	-4.9	-0.3	-2.4
- Private	4.2	0.3	-0.5	-0.1	-0.4	-1.9	-1.8	1.2
- Public	-4.4	-5.7	-7.4	-7.6	-5.7	-3.0	1.5	-3.5

1/ Plus change in stocks.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	82.6	86.7	84.8	95.4	109.1	143.2	180.1
2. Exports: Prices	100.0	90.1	88.1	86.7	88.4	88.3	88.5	87.3
3. Imports: Volume	100.0	105.1	133.3	115.3	208.8	104.6	95.0	97.4
4. Imports: Prices	100.0	101.0	93.8	90.4	86.4	83.8	87.8	93.1
5. Terms of Trade	100.0	89.2	93.9	95.9	102.2	105.3	100.8	93.8
6. Real Exchange Rate	100.0	102.4	110.5	114.2	104.6	91.3	58.0	60.0
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-123	-1,537	-2,267	-2,072	-1,109	-696	1,591	1,020
Exports GNFS	5,474	4,678	4,785	4,050	4,606	4,782	6,398	6,265
Imports GNFS	5,597	6,215	7,052	6,122	5,715	5,478	4,807	5,245
2. Interest Payments	496	665	940	880	865	1,103	1,121	1,277
3. Current Account	104	-1,722	-2,886	-2,826	-2,050	-1,639	826	126
Direct Investment	51	228	337	514	561	1,016	564	308
Change in Foreign Debt	747	1,340	1,239	971	1,256	1,526	2,090	1,178
Use Net Reserves	-1,236	-242	701	1,723	1,261	-284	-1,466	-872
Other Financing	333	396	608	-382	-1,028	-620	-2,014	-788
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	6.9	8.7	10.3	11.4	12.3	14.0	15.3	16.0
Debt (US$ billion, 1980 prices)	6.9	8.0	9.3	10.1	10.6	12.2	13.7	14.0
Real debt growth (%)	3.6	15.1	15.9	9.4	5.1	14.9	12.3	1.9
Real cost of debt (%)	-	14.6	17.1	12.1	9.3	11.0	5.1	5.9
Debt/GDP (current exchange rate)	20.8	23.9	26.4	29.5	32.1	41.0	46.4	48.2
Debt/GDP (1980 PPP exchange rate)	20.8	23.3	25.6	26.9	26.9	29.1	29.4	28.4
2. Interest Payments								
As % GDP (current exchange rate)	1.5	1.8	2.4	2.3	2.3	3.2	3.4	3.8
As % GDP (1980 PPP exchange rate)	1.5	1.8	2.3	2.1	1.9	2.3	2.2	2.3
As % Exports GNFS	9.1	14.2	19.6	21.7	18.8	23.1	17.5	20.4
3. Resource Balance								
As % Int. Payments	-24.8	-231.1	-241.2	-235.5	-128.2	-63.1	141.9	79.9
As % Total Debt	-1.8	-17.6	-22.0	-18.2	-9.0	-5.0	10.4	5.4

Part III: Other Macroeconomic Indicators

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	14.4	14.4	15.8	17.9	19.0	21.2	23.9	21.8
2. Current Expenditure	11.8	12.9	15.5	15.4	15.9	16.7	15.6	16.4
Public Consumption	8.3	9.3	9.2	8.9	8.7	8.2	7.9	7.7
Interest Payments	0.6	0.7	1.8	1.7	2.4	2.9	3.2	4.2
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	2.9	2.9	4.5	4.8	4.8	4.6	4.5	4.5
3. Current Savings	2.6	1.5	0.3	2.5	3.1	5.5	8.3	5.4
4. Capital Expenditure	5.1	4.9	8.2	10.2	9.6	9.3	8.1	8.3
5. Public Sector Deficit	2.5	3.3	7.6	7.5	6.3	3.5	-0.6	2.5
(excluding interest payments)	1.8	2.6	5.8	5.8	3.9	0.6	-3.8	-1.7
6. Financing	-	3.3	7.2	7.4	6.8	4.3	-0.5	2.6
- Internal	-	3.1	4.1	4.9	4.9	0.5	-2.7	2.4
- External	-	0.2	3.1	2.5	1.9	3.8	2.2	0.2
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	3.2	3.3	2.8	1.9	2.1	2.4	2.6	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	29.4	24.3	17.6	18.6	23.5	17.4	28.2	-
Money (M1)	28.0	20.7	26.4	23.4	24.1	16.7	22.8	-
Domestic Credit (net of quasi money)	26.5	16.6	66.6	56.6	58.5	14.8	-	-
2. Prices (Dec/Dec)								
CPI	26.6	27.5	24.1	16.5	18.3	22.3	21.0	24.7
Exchange Rate	16.7	16.0	19.0	26.3	28.3	51.2	27.2	20.4
3. Nominal Interest Rate (lending rate)	26.6	28.3	28.6	28.0	26.5	30.2	-	-
Real Interest Rate	0.6	1.5	3.7	9.8	6.9	6.4	-	-

Table G: COSTA RICA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	2.25	2.27	2.32	2.44	2.42	2.49	2.67	2.75
A. OUTPUT, ABSORPTION AND INCOME (Colones million, at 1980 Prices)								
1. GDP	41,406	40,470	37,648	38,694	41,491	41,930	43,900	45,217
(growth rate, %)	0.7	-2.3	-7.0	2.8	7.2	1.1	4.7	3.0
(per capita, Colones)	18,402	17,828	16,227	16,858	17,145	16,840	16,442	16,453
Sectoral GDP								
- Agriculture	7,372	7,748	7,384	7,679	8,239	8,132	8,197	7,787
- Industry	11,166	10,697	9,254	9,632	10,793	10,907	11,573	12,174
- Construction	2,584	2,023	1,378	1,442	1,768	1,724	-	-
- Services	22,867	22,025	21,010	21,383	22,469	22,891	24,130	25,329
2. Domestic Absorption	45,687	39,517	35,326	37,977	41,266	42,520	45,369	44,830
Private Consumption	27,140	25,324	23,144	24,497	26,307	27,214	28,313	29,252
(per capita, Colones)	12,062	11,156	9,976	10,046	10,871	10,930	10,604	10,644
Public Consumption	7,544	7,121	6,940	6,736	6,879	7,031	7,178	7,394
Gross Fixed Investment	9,895	7,430	6,364	6,808	7,310	7,676	8,780	9,557
Change in Stocks	1,109	-358	-122	936	769	599	1,098	-1,373
Current Account								
Resource Balance	-4,282	963	2,322	717	226	-589	-1,469	-185
- Exports GNFS	10,963	12,182	11,618	11,366	12,204	11,609	11,876	14,662
- Imports GNFS	15,246	11,229	9,196	10,649	11,978	12,198	13,345	14,847
Net Factor Income	-1,988	-2,627	-3,583	-3,050	-3,061	-3,099	-3,192	-3,215
4. Income (GNP)	39,418	37,843	34,064	33,644	38,430	38,832	40,708	42,077
(per capita, Colones)	17,519	16,671	14,683	14,608	15,880	15,595	15,246	15,311
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	86.4	80.9	76.8	82.8	79.7	82.1	83.4	77.9
Private	68.2	65.1	62.2	67.7	64.2	65.9	67.0	61.6
Public	18.2	15.7	14.6	15.1	16.5	16.2	16.4	16.3
2. Domestic Savings (DS)	13.6	19.1	23.2	17.2	20.3	17.9	16.6	22.1
National Savings (NS)	8.8	7.9	6.7	6.7	11.4	9.3	8.1	15.0
(NS as % of GNP)	9.2	8.9	8.1	7.5	12.6	10.2	8.8	16.1
- Private	11.9	8.8	7.3	6.4	11.1	8.3	7.6	-
- Public	-3.1	-0.9	-0.6	0.3	0.3	1.0	0.5	-
3. Fixed Investment	23.9	24.1	20.3	18.1	21.2	19.4	20.0	21.1
Private	-	-	-	-	-	-	-	-
Public	-	-	-	-	-	-	-	-
4. DS Surplus (4=2-3)	-10.3	-4.9	2.9	-0.7	-0.8	-1.5	-3.4	1.0
NS Surplus	-15.1	-16.2	-13.6	-11.3	-9.8	-10.1	-11.9	-6.1
- Private	-	-	-	-	-	-	-	-
- Public	-	-	-	-	-	-	-	-

Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	100.8	86.9	86.1	99.8	93.0	107.3	141.3
- Coffee	100.0	135.0	131.4	151.8	158.3	172.9	124.2	198.3
- Bananas	100.0	103.0	104.1	104.0	104.8	87.4	92.9	96.8
- Meat	100.0	128.0	93.5	63.7	79.0	104.9	134.2	87.5
- Sugar	100.0	102.8	76.7	75.6	143.7	52.4	81.3	100.7
- Manufactures	100.0	100.3	78.4	80.2	84.5	77.9	-	-
2. Exports: Prices	100.0	94.5	91.3	92.9	90.4	90.4	91.4	72.0
3. Imports: Volume	100.0	78.9	60.3	68.4	77.2	78.5	74.2	79.4
4. Imports: Prices	100.0	101.9	97.1	95.0	93.5	92.5	91.9	96.1
5. Terms of Trade	100.0	93.4	94.0	97.8	96.7	97.7	99.4	74.9
6. Real Exchange Rate	100.0	63.5	72.5	83.4	81.9	80.8	72.7	64.8
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-466	-129	74	-15	24	-58	57	-119
Exports GNFS	1,198	1,176	1,117	1,133	1,276	1,220	1,415	1,464
Imports GNFS	1,658	1,304	1,042	1,148	1,252	1,279	1,358	1,583
2. Interest Payments	171	135	109	529	243	342	231	326
3. Current Account	-664	-413	-272	-286	-156	-130	-154	-359
Direct Investment	48	66	27	55	52	65	62	67
Change in Foreign Debt	405	478	228	765	32	275	7	40
Use Net Reserves	40	71	-110	-69	5	-130	-55	56
Other Financing	172	-203	127	-466	67	-81	139	195
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	2.7	3.2	3.4	4.2	4.0	4.4	4.4	4.3
Debt (US$ billion, 1980 prices)	2.7	2.9	3.1	3.8	3.5	3.9	3.9	3.7
Real debt growth (%)	13.4	7.9	5.0	21.7	-7.3	10.5	1.4	-4.5
Real cost of debt (%)	-	13.6	15.6	5.4	10.5	7.4	7.4	17.5
Debt/GDP (current exchange rate)	56.5	122.6	132.2	134.9	113.1	116.3	106.4	85.1
Debt/GDP (1980 PPP exchange rate)	56.5	62.1	67.2	77.6	66.1	69.7	63.8	59.2
2. Interest Payments								
As % GDP (current exchange rate)	3.5	5.1	4.2	16.8	6.8	9.0	5.5	5.5
As % GDP (1980 PPP exchange rate)	3.5	2.5	2.1	9.7	4.0	5.4	3.4	4.5
As % Exports GNFS	14.2	11.5	9.8	46.7	19.1	28.0	16.3	22.2
3. Resource Balance								
As % Int. Payments	-269.7	-95.1	68.2	-2.8	10.0	-17.1	24.8	-36.7
As % Total Debt	-16.8	-4.0	2.2	-.4	.6	-1.3	1.3	-2.8

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	12.2	13.4	14.2	16.6	17.0	16.6	15.9	-
2. Current Expenditure	15.3	14.3	14.6	16.3	16.7	15.6	15.4	-
Public Consumption	7.8	6.8	5.9	7.3	7.6	7.0	6.9	-
Interest Payments	2.2	2.5	2.7	2.9	2.6	2.4	2.5	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	5.3	5.0	6.2	6.1	6.5	6.2	6.0	-
3. Current Savings	-3.1	-0.9	-0.6	0.3	0.3	1.0	0.5	-
4. Capital Expenditure	4.7	3.7	2.3	3.9	3.4	3.0	3.9	-
5. Public Sector Deficit	7.8	4.6	2.9	3.6	3.1	2.0	3.4	-
(excluding interest payments)	5.6	2.1	0.2	0.7	0.5	-0.4	0.9	-
6. Financing	7.8	4.7	2.8	3.7	3.0	2.0	3.5	-
- Internal	6.2	2.1	0.5	3.1	1.3	2.5	1.8	-
- External	1.6	1.7	1.3	0.6	1.7	-0.5	1.7	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	2.9	10.3	12.3	1.6	3.0	1.8	2.5	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	18.8	121.6	9.0	33.2	21.1	43.0	25.5	-
Money (M1)	16.3	49.0	70.3	38.9	17.6	7.7	31.0	-
Domestic Credit (net of quasi money)	38.4	-71.3	142.6	199.9	17.0	-9.6	39.4	-
2. Prices (Dec/Dec)								
CPI	17.6	85.1	81.7	10.7	17.3	11.1	15.4	13.6
Exchange Rate	0.0	321.1	11.5	7.6	10.0	12.5	9.6	17.6
3. Nominal Interest Rate (lending rate)	-	-	-	-	-	-	-	-
Real Interest Rate	-	-	-	-	-	-	-	-

Table H: ECUADOR: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	8.1	8.4	8.6	8.9	9.1	9.4	9.7	9.9
A. OUTPUT, ABSORPTION AND INCOME (Sucres million, at 1975 Prices)								
1. GDP	147,622	153,443	155,265	150,885	157,226	164,258	168,995	163,925
(growth rate, %)	4.9	3.9	1.2	-2.8	4.0	3.7	1.7	-3.0
(per capita, Sucres '000)	18,180	18,354	18,033	17,030	17,259	17,512	17,512	16,506
Sectoral GDP								
- Agriculture	21,198	22,647	23,101	19,891	22,007	24,043	25,924	-
- Petroleum and Mining	15,070	15,992	15,527	19,893	21,879	24,027	25,475	-
- Manufacturing	26,807	29,159	29,584	29,183	28,643	28,741	28,615	-
- Construction	6,906	7,239	7,285	6,728	6,583	6,710	6,378	-
2. Domestic Absorption	162,513	162,649	168,918	152,907	154,508	158,668	161,471	-
Private Consumption	99,686	104,511	106,383	103,785	106,597	110,132	112,790	-
(per capita, Sucres '000)	12,277	12,501	12,356	11,714	11,701	11,741	11,688	-
Public Consumption	23,611	24,185	24,299	22,828	21,997	21,037	20,863	-
Private Fixed Investment	26,543	23,454	24,838	17,821	16,941	17,431	19,100	-
Public Fixed Investment	8,432	8,988	7,829	6,306	6,094	7,133	6,253	-
Change in Stocks	4,241	1,511	5,569	2,167	2,879	2,935	2,465	-
3. Current Account								
Resource Balance	-14,891	-9,206	-13,653	-2,022	2,718	5,590	7,524	-
- Exports GNFS	30,792	32,247	30,647	31,396	35,331	40,531	42,481	-
- Imports GNFS	45,683	41,453	44,300	33,418	32,613	34,941	34,957	-
Net Factor Income	-7,316	-8,058	-11,537	-11,320	-14,817	-15,040	-12,060	-
4. Income (GNP)	140,306	145,385	143,728	139,565	142,409	149,218	156,935	-
(per capita, Sucres '000)	17,279	17,391	16,693	15,752	15,632	15,908	16,263	-
B. CONSUMPTION, SAVINGS AND INVESTMENT (As % of GDP at current prices)								
1. Consumption 1/	76.6	76.7	79.6	79.4	78.2	77.3	81.0	-
Private	62.1	62.5	65.6	66.9	65.9	65.9	69.4	-
Public	14.5	14.3	14.0	12.5	12.3	11.4	11.6	-
2. Domestic Savings (DS)	23.4	23.3	20.4	20.6	21.8	22.7	19.0	-
National Savings (NS)	18.4	18.0	12.9	13.2	12.9	14.9	10.1	-
(NS as % of GNP)	19.4	19.0	14.0	14.2	14.2	16.2	11.1	-
- Private	13.0	13.5	10.3	7.5	4.8	3.7	5.3	-
- Public	5.5	4.6	2.6	5.7	8.1	11.3	4.8	-
3. Fixed Investment	23.6	22.3	22.7	16.6	15.4	16.1	18.7	-
Private	17.2	14.9	16.1	11.8	11.0	11.2	14.0	-
Public	6.4	7.3	6.5	4.8	4.4	4.9	4.7	-
4. DS Surplus (4=2-3)	-0.2	1.0	-2.3	4.0	6.4	6.6	0.3	-
NS Surplus	-5.2	-4.3	-9.7	-3.5	-2.5	-1.1	-8.6	-
- Private	-4.2	-1.5	-5.8	-4.3	-6.2	-7.5	-8.7	-
- Public	-1.0	-2.8	-3.9	0.9	3.7	6.4	0.1	-

1/ Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	102.5	100.5	109.9	123.1	139.8	150.3	123.7
- Petroleum	100.0	122.4	101.0	133.0	142.0	158.0	164.0	-
- Bananas	100.0	87.5	94.0	68.0	69.0	80.0	104.0	-
- Coffee	100.0	103.8	137.0	139.0	133.0	141.0	189.0	-
- Shrimp and Fish	100.0	-	129.0	141.0	153.0	161.0	368.0	-
- Manufactures	100.0	-	119.0	50.0	78.0	93.0	43.0	-
2. Exports: Prices	100.0	97.8	91.9	84.8	84.5	81.4	57.7	64.6
3. Imports: Volume	100.0	108.5	105.4	50.2	70.5	81.3	83.9	104.9
4. Imports: Prices	100.0	97.0	92.3	104.4	99.1	94.5	86.7	89.7
5. Terms of Trade	100.0	100.8	99.6	81.2	85.3	86.1	66.5	72.0
6. Real Exchange Rate	100.0	111.8	109.4	104.1	85.9	89.3	71.9	53.0
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-57	-255	-220	834	855	1,092	417	-216
Exports GNFS	2,866	2,913	2,687	2,643	2,895	3,294	2,623	2,442
Imports GNFS	2,923	3,168	2,966	1,809	2,040	2,202	2,206	2,658
2. Interest Payments	365	539	688	457	790	762	697	705
3. Current Account	-642	-1,002	-1,195	-126	-248	114	-548	-1,183
Direct Investment	70	60	40	50	50	52	70	75
Change in Foreign Debt	1,046	1,390	-131	493	769	246	810	1,240
Use Net Reserves	-226	287	460	58	-19	-25	52	-
Other Financing	-249	-725	825	-475	-542	-395	-384	-
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	6.0	7.8	7.9	7.5	8.4	8.5	9.0	10.0
Debt (US$ billion, 1980 prices)	6.0	7.2	7.1	6.7	7.3	7.4	8.0	8.8
Real debt growth (%)	16.1	19.6	-1.5	-5.2	9.3	1.2	8.4	9.1
Real cost of debt (%)	-	14.1	19.1	5.7	13.5	14.0	33.3	3.0
Debt/GDP (current exchange rate)	51.1	56.1	56.8	59.4	65.0	53.2	80.5	95.8
Debt/GDP (1980 PPP exchange rate)	51.1	58.6	54.6	61.9	53.7	50.1	49.9	56.2
2. Interest Payments								
As % GDP (current exchange rate)	3.1	3.9	5.0	3.6	6.1	4.8	6.3	6.7
As % GDP (1980 PPP exchange rate)	3.1	4.0	4.8	3.1	5.0	4.5	3.9	3.9
As % Exports GNFS	12.7	18.5	25.6	17.3	27.3	23.1	26.6	28.9
3. Resource Balance								
As % Int. Payments	-15.5	-47.2	-31.9	182.6	108.2	143.2	59.9	-30.6
As % Total Debt	-0.9	-3.3	-2.8	11.1	10.1	12.8	4.7	-2.2

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	27.0	26.0	25.5	26.3	28.1	30.2	25.0	-
2. Current Expenditure	21.5	21.4	22.9	20.7	20.0	19.0	20.2	-
Public Consumption	10.8	10.7	10.5	14.5	14.4	12.9	13.6	-
Interest Payments	2.3	2.8	4.4	4.0	3.5	4.0	4.5	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	2.4	2.0	2.0	2.2	2.1	2.1	2.1	-
3. Current Savings	5.5	4.6	2.6	5.7	8.1	11.3	4.8	-
4. Capital Expenditure	10.0	10.3	10.1	7.9	6.7	6.8	7.3	-
5. Public Sector Deficit	4.5	5.8	7.5	2.2	-1.4	-4.5	2.5	-
(excluding interest payments)	2.2	3.0	3.1	-1.8	-4.9	-8.5	-2.0	-
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	2.4	3.0	3.9	8.1	3.5	3.2	-	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	18.0	6.5	8.6	23.6	37.6	24.9	35.1	-
Money (M1)	27.7	15.3	18.3	35.6	30.2	24.1	-	-
Domestic Credit (net of quasi money)	28.6	35.9	36.9	70.5	26.5	-	-	-
2. Prices (Dec/Dec)								
CPI	14.5	17.9	24.3	52.5	25.1	24.4	27.3	30.6
Exchange Rate	0.0	0.0	32.0	63.2	24.2	42.5	53.0	51.2
3. Nominal Interest Rate (lending rate)	-	-	-	-	-	-	-	-
Real Interest Rate	-	-	-	-	-	-	-	-

Table I: JAMAICA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	2.17	2.20	2.23	2.27	2.30	2.34	2.37	2.41
A. OUTPUT, ABSORPTION AND INCOME (Dollars million, at 1974 Prices)								
1. GDP	1,827.8	1,875.7	1,897.8	1,940.9	1,924.1	1,836.7	1,876.2	1,953.1
(growth rate, %)	-5.8	2.7	1.1	2.3	-0.9	-4.5	2.2	4.1
(per capita, Dollars)	842.3	853.0	851.0	855.0	836.6	784.9	791.6	812.1
Sectoral GDP								
- Agriculture	152.7	156.1	143.7	154.2	168.6	152.8	159.6	166.1
- Manufacturing	281.3	283.9	303.7	309.4	293.9	296.5	305.7	318.2
- Construction	98.6	99.0	114.7	122.4	113.7	97.5	100.7	104.8
- Services	1,182.4	1,230.0	1,218.6	1,237.2	1,229.4	1,184.6	1,208.6	1,258.2
2. Domestic Absorption	1,875.6	1,937.9	1,980.2	2,006.0	1,960.8	1,913.0	1,943.1	1,989.9
Private Consumption	1,182.3	1,160.5	1,165.3	1,172.5	1,174.8	1,177.0	1,191.6	1,191.6
(per capita, Dollars)	544.8	527.5	522.6	516.5	510.8	503.0	502.8	495.4
Public Consumption	454.3	464.2	479.2	484.9	480.0	475.0	475.3	472.2
Gross Fixed Investment	225.2	274.2	323.0	332.2	341.9	358.0	291.9	314.5
Change in Stocks	13.7	39.0	12.7	16.4	-36.9	-97.0	-15.7	11.6
Current Account								
Resource Balance	-46.2	-63.0	-87.1	-74.6	-37.0	-75.0	-66.0	-80.2
- Exports GNFS	636.9	662.1	647.6	626.5	635.6	539.0	557.9	602.8
- Imports GNFS	683.1	725.1	734.7	701.1	672.0	615.0	623.9	683.0
Net Factor Income	-123.1	-97.6	-97.8	-77.5	-239.1	-284.5	-246.9	-248.1
4. Income (GNP)	1,704.7	1,779.1	1,800.0	1,863.7	1,684.7	1,552.5	1,630.2	1,706.8
(per capita, Dollars)	785.6	808.7	807.2	821.0	732.5	663.5	687.8	709.7
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	87.6	92.2	91.6	91.5	85.4	88.0	82.2	82.0
Private	67.2	71.4	69.6	71.4	68.8	72.5	66.7	66.6
Public	20.3	20.8	22.0	20.1	16.6	15.5	15.5	15.4
2. Domestic Savings (DS)	12.4	7.8	8.4	8.5	14.6	12.0	17.8	18.0
National Savings (NS)	5.7	2.2	2.7	3.0	-0.2	-4.0	-1.3	-1.1
(NS as % of GNP)	6.2	2.8	2.9	3.2	-0.2	-4.8	-1.6	-1.4
- Private	8.5	-0.8	2.8	8.8	4.8	0.7	-1.6	-2.1
- Public	-2.8	2.6	-0.1	-5.8	-5.0	-4.7	0.3	1.0
3. Fixed Investment	14.5	18.1	20.0	20.6	21.2	22.2	18.1	19.4
Private	10.2	11.3	12.4	15.7	18.0	19.5	13.5	14.3
Public	4.4	6.8	7.5	4.9	3.2	2.7	4.6	5.1
4. DS Surplus (4=2-3)	-2.1	-10.2	-11.6	-12.1	-6.7	-10.2	-0.3	-1.4
NS Surplus	-8.8	-15.9	-17.2	-17.5	-21.4	-26.2	-19.4	-20.5
- Private	-1.6	-11.7	-9.6	-6.8	-13.2	-18.8	-15.0	-16.4
- Public	-7.2	-4.8	-7.6	-10.7	-8.2	-7.4	-4.3	-4.1

1/ Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	101.6	88.5	79.9	83.4	69.0	76.9	83.7
- Bauxite	100.0	88.5	66.9	49.0	75.1	37.6	49.6	56.3
- Alumina	100.0	104.2	74.6	78.9	70.5	66.4	46.8	50.2
- Sugar	100.0	93.3	104.9	103.7	119.2	115.0	108.9	105.0
- Bananas	100.0	54.4	63.5	76.2	33.7	39.4	55.8	112.4
2. Exports: Prices	100.0	99.6	96.1	89.1	87.5	85.6	94.0	98.3
3. Imports: Volume	100.0	126.4	128.7	117.8	111.2	110.0	124.8	139.1
4. Imports: Prices	100.0	105.9	96.7	98.8	91.8	89.7	83.0	92.2
5. Terms of Trade	100.0	94.1	93.2	95.1	95.3	95.5	113.2	106.6
6. Real Exchange Rate	100.0	106.5	110.5	104.8	72.9	63.7	68.5	66.9
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-27	-282	-358	-274	-153	-205	90	8
Exports GNFS	1,359	1,400	1,245	1,220	1,264	1,172	1,288	1,444
Imports GNFS	1,386	1,682	1,603	1,494	1,417	1,377	1,198	1,436
2. Interest Payments	151	213	248	267	277	318	265	316
3. Current Account	-166	-337	-409	-359	-335	-304	-192	-210
Direct Investment	28	-12	-16	-19	12	-9	2	1
Change in Foreign Debt	197	397	543	471	210	333	23	218
Use Net Reserves	-83	188	94	118	-74	4	-60	-69
Other Financing	24	-237	-212	-211	188	-24	227	60
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	1.9	2.3	2.8	3.3	3.5	3.9	3.9	4.1
Debt (US$ billion, 1980 prices)	1.9	2.1	2.6	2.9	3.1	3.4	3.5	3.6
Real debt growth (%)	-2.3	10.7	21.1	15.1	3.9	10.0	3.6	2.9
Real cost of debt (%)	-	4.3	18.4	9.6	10.3	10.4	5.3	0.4
Debt/GDP (current exchange rate)	43.6	46.8	52.3	51.6	46.9	37.1	31.3	29.3
Debt/GDP (1980 PPP exchange rate)	43.6	46.9	53.8	59.6	61.6	67.6	64.9	63.6
2. Interest Payments								
As % GDP (current exchange rate)	3.5	4.3	4.6	3.2	3.2	3.1	2.1	2.3
As % GDP (1980 PPP exchange rate)	3.5	4.3	4.7	3.7	4.8	5.6	4.4	4.9
As % Exports GNFS	11.1	15.2	19.9	17.6	21.9	27.1	20.5	21.9
3. Resource Balance								
As % Int. Payments	-17.9	-182.2	-144.2	-132.1	-55.2	-64.5	34.0	2.5
As % Total Debt	-1.4	-14.2	-12.6	-8.3	-4.3	-5.3	2.3	0.2

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES 1/ (as % of GDP at current prices)								
1. Current Revenue	28.0	27.9	26.9	23.7	27.3	26.2	30.4	33.8
2. Current Expenditure	31.8	31.6	30.3	31.6	28.6	27.2	25.9	25.7
Public Consumption	18.8	19.1	13.7	12.8	10.9	9.0	8.7	-
Interest Payments	7.7	7.8	8.3	10.3	9.7	10.9	10.4	-
- Internal	-	5.1	5.3	6.9	4.9	3.9	4.7	-
- External	-	2.7	3.0	3.4	4.8	7.0	5.7	-
Transfers 2/	5.4	4.7	8.3	8.5	8.0	7.3	6.8	-
3. Current Savings	-6.8	-3.8	-3.4	-7.9	-1.3	-1.0	4.5	8.1
4. Capital Expenditure	9.7	11.9	10.7	6.7	4.5	4.9	6.4	7.7
5. Public Sector Deficit	18.5	15.6	14.1	15.8	6.3	5.5	1.4	-1.5
(excluding interest payments) 3/	8.8	7.8	5.8	5.5	-3.4	-4.4	-9.0	-
6. Financing	16.5	15.7	14.1	15.8	6.3	5.5	1.4	-1.5
- Internal	12.0	6.4	7.3	9.2	-5.0	0.2	2.5	-4.5
- External	4.5	9.3	6.8	6.6	11.3	5.3	-1.1	3.0
7. Central Bank Losses	0.0	0.0	0.7	1.9	5.8	7.1	5.7	5.4
8. Total Deficit (=5+7) 4/	13.8	15.9	15.7	19.6	15.1	13.8	5.6	-
9. Inflation Tax (M1)	4.1	0.7	1.0	2.3	4.0	3.0	1.4	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	41.0	-4.2	-11.4	71.6	92.0	34.9	18.7	-
Money (M1)	13.9	8.1	13.1	21.6	23.7	15.2	40.8	-
Domestic Credit (net of quasi money)	-4.6	43.6	14.1	31.1	8.6	-28.3	10.3	-
2. Prices (Dec/Dec)								
CPI	28.6	4.8	7.0	16.7	31.2	23.9	10.4	5.6
Exchange Rate	0.0	0.0	0.0	84.0	50.4	11.2	0.0	0.4
3. Nominal Interest Rate (lending rate)	-	-	-	-	-	-	-	-
Real Interest Rate	-	-	-	-	-	-	-	-

1/ Central Government data on a fiscal year basis.
2/ Also includes other current expenditures.
3/ Also includes grants and pass-throughs.
4/ Also includes the deficits of the rest of the General Government, Public Enterprises, and the discrepancy.

Table J: MEXICO: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	69.4	71.3	73.1	75.0	76.8	78.5	79.6	81.4
A. OUTPUT, ABSORPTION AND INCOME (Pesos billion, at 1970 Prices)								
1. GDP	841.9	908.8	903.8	856.2	887.6	912.3	878.1	887.0
(growth rate, %)	8.3	7.9	-0.6	-5.3	3.7	2.8	-3.7	1.0
(per capita, Pesos thousand)	12.1	12.8	12.4	11.4	11.6	11.6	11.0	10.9
Sectoral GDP								
- Agriculture	75.7	80.3	79.8	82.1	84.1	86.0	84.2	84.6
- Mining (incl. oil)	27.4	31.6	34.5	33.6	34.2	34.5	32.5	33.8
- Manufacturing	209.7	224.3	217.9	202.0	211.7	224.0	211.5	216.9
- Construction	46.4	51.8	49.3	40.4	41.8	42.8	38.9	38.1
2. Domestic Absorption	885.5	972.0	902.3	806.6	837.1	871.9	797.1	792.5
Private Consumption	574.5	616.7	623.4	578.7	591.1	603.4	580.7	578.4
(per capita, Pesos thousand)	8.3	8.7	8.5	7.7	7.7	7.7	7.3	7.1
Public Consumption	75.0	82.5	84.4	83.3	89.0	90.2	81.7	77.4
Private Fixed Investment	114.6	105.5	96.7	70.0	89.0	104.2	93.5	93.5
Public Fixed Investment	82.8	120.9	99.6	67.2	55.8	50.3	41.2	43.2
Change in Stocks	38.6	46.4	4.2	8.8	12.2	23.8	-	-
3. Current Account								
Resource Balance	-43.6	-63.2	1.5	50.2	50.5	39.6	59.6	71.9
- Exports of GNFS	76.7	81.5	92.6	103.3	114.1	110.7	117.9	136.2
- Imports of GNFS	120.3	144.7	91.1	53.1	63.6	71.1	58.3	64.3
Net Factor Income from Abroad	-28.4	-38.1	-68.7	-60.3	-54.1	-43.0	-45.9	-40.9
4. Income (GNP)	813.5	870.7	835.1	795.9	833.5	868.5	831.0	843.2
(per capita, Pesos thousand)	11.7	12.2	11.4	10.6	10.9	11.1	10.4	10.4
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	76.8	76.8	74.6	72.6	76.9	73.1	77.1	74.9
Private	66.0	66.6	63.3	63.4	66.3	63.8	68.2	65.8
Public	10.8	10.2	11.3	9.1	9.6	9.3	9.0	9.0
2. Domestic Savings (DS)	23.2	23.2	25.4	27.4	24.1	26.9	22.9	25.1
National Savings (NS)	20.5	18.9	18.9	21.2	18.4	22.1	17.1	20.2
(NS as % of GNP)	21.0	19.7	20.2	22.6	19.5	23.2	18.2	21.2
- Private	18.3	20.3	26.8	23.0	20.2	25.0	18.5	19.6
- Public	2.2	-1.4	-7.9	-1.8	-1.8	-2.9	-1.4	0.5
3. Fixed Investment	24.2	25.7	22.3	17.8	16.2	21.9	18.5	17.6
Private	11.4	12.7	12.6	10.6	9.8	16.2	13.3	12.5
Public	12.7	13.0	9.7	7.3	6.4	5.7	5.2	5.0
4. DS Surplus (4=2-3)	-0.9	-2.5	3.1	9.6	7.9	5.0	4.4	7.5
NS Surplus	-3.7	-6.8	-3.4	3.3	2.2	0.2	-1.3	2.6
- Private	6.8	7.1	12.3	10.9	10.6	9.6	14.2	7.6
- Public	-10.5	-14.0	-15.7	-7.6	-8.5	-9.4	-15.5	-5.0

1/ Plus change in stocks. In 1985-87, change in stocks is included in private fixed investment.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	103.4	138.4	157.1	172.3	160.3	154.0	169.4
- Crude Oil	100.0	131.3	180.0	185.0	185.0	173.0	155.0	153.5
- Oil Products	100.0	139.2	91.0	181.0	241.0	291.0	260.0	-
- Cotton	100.0	106.4	74.1	42.4	73.2	38.3	68.9	-
- Coffee	100.0	93.0	120.2	135.4	141.9	158.8	284.0	-
- Manufactures	100.0	97.3	95.8	150.0	192.2	186.4	223.7	277.2
2. Exports: Prices	100.0	107.3	100.5	94.0	93.0	90.5	68.8	90.1
3. Imports: Volume	100.0	120.3	79.3	47.8	63.8	77.5	59.4	60.8
4. Import: Prices	100.0	99.4	96.6	95.7	94.2	92.7	102.1	107.2
5. Terms of Trade	100.0	108.0	104.0	98.2	98.8	97.6	67.4	84.1
6. Real Exchange Rate	100.0	109.3	81.6	71.7	83.8	86.3	60.4	57.8
B. BALANCE OF PAYMENTS (US$ billion)								
1. Resource Balance	-2.2	-5.3	6.3	14.5	14.1	9.2	5.8	10.3
Exports GNFS	23.5	29.1	26.2	27.2	30.2	27.6	22.0	28.3
Imports GNFS	25.7	34.4	19.9	12.7	16.1	18.4	16.2	18.0
2. Interest Payments	6.1	9.8	11.2	10.0	11.3	10.3	8.1	7.9
3. Current Account	-8.2	-13.9	-6.2	5.4	4.2	1.2	-0.7	4.4
Direct Investment	2.2	1.2	1.7	0.5	0.4	0.5	0.9	2.5
Change in Foreign Debt	6.6	12.0	6.5	21.8	6.1	1.1	2.3	8.2
Used Net Reserves	-1.0	-1.1	3.5	-5.5	-3.0	3.4	1.1	-6.6
Other Financing	0.4	0.5	-5.4	-22.2	-7.7	-6.2	-3.7	-8.5
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	57.5	78.3	86.1	93.0	96.4	97.1	101.7	109.1
Debt (US$ billion, 1980 prices)	57.5	71.7	77.3	82.5	83.6	84.6	91.2	95.3
Real debt growth (%)	17.5	24.8	7.8	6.6	1.3	1.2	7.9	4.5
Real cost of debt (%)	-	10.7	19.1	15.5	13.5	13.0	16.3	-6.2
Debt/GDP (current exchange rate)	30.8	32.7	51.6	62.4	54.9	52.6	78.4	80.0
Debt/GDP (1980 PPP exchange rate)	30.8	35.5	36.9	40.5	39.0	37.0	39.2	40.6
2. Interest Payments								
As % GDP (current exchange rate)	3.3	4.1	6.7	6.7	6.4	5.6	6.2	5.8
As % GDP (1980 PPP exchange rate)	3.3	4.4	4.8	4.4	4.6	3.9	3.1	2.9
As % Exports GNFS	26.0	33.7	42.7	36.8	37.4	37.3	36.8	27.9
3. Resource Balance								
As % Int. Payments	-36.1	-54.1	56.3	145.0	124.8	89.3	71.6	130.4
As % Total Debt	-3.8	-6.8	7.3	15.6	14.6	9.5	5.7	9.4

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	22.4	20.4	23.8	27.2	25.5	24.9	23.6	-
2. Current Expenditure	20.2	21.4	29.8	27.6	28.5	28.6	33.8	-
Public Consumption	6.8	7.4	8.0	6.6	7.4	7.3	7.9	-
Interest Payments	3.6	5.2	8.7	12.0	12.5	12.5	16.7	-
- Internal	1.5	3.0	4.2	7.0	7.7	8.4	12.0	-
- External	2.1	2.2	4.5	4.9	4.8	4.1	4.8	-
Transfers	9.8	8.8	13.1	9.0	8.7	8.8	9.2	-
3. Current Savings	2.2	-1.0	-6.0	-0.3	-2.1	-3.7	-10.3	-
4. Capital Expenditure	10.1	13.7	11.7	9.5	8.9	6.8	6.1	-
5. Public Sector Deficit	7.9	14.7	17.7	8.8	9.0	10.5	16.4	16.6
(excluding interest payments)	4.3	9.5	9.0	-3.2	-3.5	-2.5	-0.3	-
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	2.9	2.7	8.7	5.6	3.8	3.9	6.2	7.5
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	40.7	44.7	97.9	55.9	51.3	17.0	48.0	113.0
Money (M1)	32.1	33.1	62.4	40.3	60.0	49.5	67.4	138.7
Domestic Credit (net of quasi money)	38.4	36.0	171.4	41.7	28.4	111.0	118.6	95.7
2. Prices (Dec/Dec)								
CPI	29.8	28.7	98.8	80.8	59.2	63.7	105.7	143.6
Exchange Rate	2.0	12.8	267.8	49.2	33.8	93.0	148.8	139.3
3. Nominal Interest Rate (on commercial paper)	-	42.4	73.1	75.9	62.0	106.8	141.4	-
Real Interest Rate	-	10.7	-12.9	-2.7	1.8	26.3	18.2	-

Table K: PERU: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	17.3	17.8	18.2	18.7	19.2	19.7	20.2	20.7
A. OUTPUT, ABSORPTION AND INCOME (Intis billion, at 1979 Prices)								
1. GDP	3646.8	3807.7	3817.3	3346.3	3505.9	3594.6	3900.3	4173.3
(growth rate, %)	4.5	4.4	0.3	-12.3	4.8	2.5	8.5	7.0
(per capita, Intis)	210.8	214.5	209.4	178.9	182.6	182.5	193.0	201.2
Sectoral GDP								
- Agriculture	362.6	395.4	404.2	365.2	402.5	412.3	425.1	443.3
- Fishing	18.9	20.6	24.2	17.0	24.9	28.4	35.4	36.9
- Mining	468.7	454.3	459.9	414.7	434.5	455.5	437.1	419.6
- Manufacturing	866.8	872.6	863.9	718.0	757.4	809.2	929.4	1013.0
- Construction	202.3	225.3	229.5	181.7	183.2	154.5	204.5	235.2
2. Domestic Absorption	3635.0	3960.0	3939.5	3257.6	3211.6	3151.5	3525.3	3911.4
Private Consumption	2236.4	2355.8	2376.4	2157.1	2209.0	2244.7	2545.4	2677.8
(per capita, Intis)	129.3	132.7	130.4	115.8	115.1	113.9	125.9	129.4
Public Consumption	367.8	362.0	410.2	374.2	357.1	359.2	380.4	405.6
Gross Fixed Investment	882.0	1024.1	1003.4	712.1	668.2	606.4	732.9	828.0
Change in Stocks	148.9	218.2	149.6	4.2	-22.7	-58.8	-33.5	0.0
3. Current Account								
Resource Balance	11.6	-152.3	-122.3	88.7	294.3	443.1	275.0	271.0
- Exports GNFS	879.3	853.5	905.7	812.1	886.1	930.2	854.8	862.6
- Imports GNFS	867.7	1005.8	1028.0	723.4	591.8	487.1	579.8	591.6
Net Factor Income	-143.7	-150.9	-150.0	-181.8	-189.3	-197.5	-115.6	-122.4
4. Income (GNP)	3502.9	3656.8	3667.3	3164.6	3315.6	3397.1	3784.6	4050.9
(per capita, Intis)	202.5	206.0	201.2	169.1	172.7	172.4	187.3	195.3
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	77.1	80.8	78.6	77.9	73.3	71.5	75.2	-
Private	65.3	68.6	65.4	65.3	62.2	61.6	66.0	-
Public	11.8	12.2	13.2	12.6	11.1	9.9	10.2	-
2. Domestic Savings (DS)	22.9	19.2	21.4	22.1	26.7	28.5	23.8	-
National Savings (NS)	19.0	15.1	17.4	16.4	21.0	22.5	20.5	-
(NS as % of GNP)	19.7	15.8	18.1	17.4	22.2	23.7	21.2	-
- Private	16.0	14.5	17.5	19.1	20.0	18.6	20.3	-
- Public	3.0	0.6	-0.1	-2.7	1.0	3.9	0.2	-
3. Fixed Investment	23.5	26.0	27.7	23.2	23.0	24.0	24.1	-
Private	16.2	17.0	17.4	12.9	13.5	16.7	18.0	-
Public	7.3	9.0	10.3	10.3	9.5	7.3	6.1	-
4. DS Surplus (4=2-3)	-0.6	-6.9	-6.3	-1.1	3.7	4.5	-0.3	-
NS Surplus	-4.5	-10.9	-10.3	-6.8	-2.0	-1.4	-3.8	-
- Private	-0.2	-2.5	0.1	5.2	5.5	2.0	2.3	-
- Public	-4.3	-8.4	-10.4	-13.0	-8.5	-3.4	-5.9	-

1/ Plus change in stocks.

Part II: External Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	92.9	106.0	89.2	100.3	96.2	95.5	85.9
2. Exports: Prices	100.0	89.3	79.3	86.3	80.1	78.7	67.1	76.5
3. Imports: Volume	100.0	128.4	127.9	95.2	83.7	78.3	108.0	118.8
4. Import: Prices	100.0	95.6	94.1	92.5	93.9	87.5	85.8	88.8
5. Terms of Trade	100.0	93.4	84.3	93.3	85.3	90.0	78.2	86.2
6. Real Exchange Rate	100.0	118.5	122.5	114.4	114.3	94.0	105.9	130.2
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	561	-870	-737	40	786	1,002	-320	-521
Exports GNFS	4,630	4,019	4,077	3,727	3,817	3,792	3,305	3,570
Imports GNFS	3,969	4,889	4,814	3,687	3,031	2,790	3,625	4,091
2. Interest Payments	1,000	1,100	1,100	1,246	1,322	1,144	924	776
3. Current Account	-101	-1,728	-1,609	-871	-221	125	-1,055	-1,132
Direct Investment	27	125	48	-47	-203	-123	17	141
Change in Foreign Debt	309	-12	1,203	1,528	921	739	578	414
Use Net Reserves	-722	504	-124	40	-247	-280	459	612
Other Financing	487	1,111	482	-650	-250	-461	1	-35
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	10.0	10.3	12.3	12.4	13.3	13.8	14.5	15.1
Debt (US$ billion, 1980 prices)	10.0	9.4	11.0	11.0	11.6	12.0	13.0	13.2
Real debt growth (%)	-4.7	-5.6	17.1	6.0	4.7	3.6	8.6	1.3
Real cost of debt (%)	-	19.8	17.1	3.6	8.5	9.2	12.1	-5.1
Debt/GDP (current exchange rate)	48.4	46.7	47.8	62.3	63.5	76.4	54.6	34.9
Debt/GDP (1980 PPP exchange rate)	48.4	43.6	48.7	54.2	53.4	51.9	49.2	46.6
2. Interest Payments								
As % GDP (current exchange rate)	4.8	4.4	4.3	6.2	6.3	6.4	3.5	1.8
As % GDP (1980 PPP exchange rate)	4.8	4.7	4.4	5.4	5.3	4.3	3.1	2.4
As % Exports GNFS	21.6	27.4	27.0	33.4	34.6	36.2	28.0	21.7
3. Resource Balance								
As % Int. Payments	66.1	-79.1	-67.0	3.2	59.5	87.60	-34.6	-67.1
As % Total Debt	5.6	-8.5	-6.0	0.3	5.9	7.3	-2.2	-3.5

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	54.3	48.2	49.5	53.2	47.9	53.6	42.1	-
2. Current Expenditure	51.3	47.6	49.6	55.9	46.9	49.7	41.9	-
Public Consumption	36.4	34.3	36.6	40.4	29.6	31.2	27.0	-
Interest Payments	5.7	5.9	5.5	7.0	8.9	6.8	4.1	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	9.2	7.4	7.5	8.5	10.4	11.7	10.8	-
3. Current Savings	3.0	0.6	-0.1	-2.7	1.0	3.9	0.2	-
4. Capital Expenditures	8.4	9.8	10.6	10.4	9.4	7.5	6.6	-
5. Public Sector Deficit	4.7	8.4	9.3	12.1	7.6	3.0	6.0	-
(excluding interest payments)	-1.0	2.5	3.8	5.1	0.7	-3.8	1.9	-
6. Financing	4.7	8.4	9.3	12.1	7.6	3.0	6.0	-
- Internal	2.7	6.3	2.0	5.2	2.0	-2.0	3.0	-
- External	2.0	2.1	7.3	6.9	5.6	5.0	3.0	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	5.8	6.6	5.6	8.0	6.7	11.6	5.6	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	82.6	53.2	60.5	106.8	139.9	200.3	56.0	-
Money (M1)	57.7	46.6	34.7	96.2	116.0	285.5	85.7	-
Domestic Credit (net of quasi money)	27.5	93.9	19.6	276.1	39.2	75.8	199.8	-
2. Prices (Dec/Dec)								
CPI	59.7	72.7	72.9	125.1	111.5	158.3	62.9	104.8
Exchange Rate	36.8	48.2	95.3	129.4	150.8	144.8	0.0	136.6
3. Nominal Interest Rate (lending rate)	-	-	-	-	-	-	-	-
Real Interest Rate	-	-	-	-	-	-	-	-

Table L: URUGUAY: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	2.91	2.93	2.95	2.97	2.99	3.01	2.98	2.99
A. OUTPUT, ABSORPTION AND INCOME (New Pesos million, at 1978 Prices)								
1. GDP	34,808	35,469	32,138	30,257	29,816	29,811	31,689	33,369
(growth rate, %)	6.0	1.9	-9.4	-5.9	-1.5	0.0	6.3	5.3
(per capita, New Pesos '000)	11,962	12,106	10,894	10,188	9,972	9,904	10,634	11,150
Sectoral GDP								
- Agriculture	3,275	3,439	3,200	3,245	3,025	3,163	3,271	-
- Fishery	133	157	132	157	146	152	149	-
- Manufacture	6,980	6,662	5,536	5,148	5,292	5,207	5,837	-
- Housing	1,830	1,848	1,859	1,864	1,882	1,897	1,912	-
- Others	17,382	18,067	16,592	15,306	14,764	14,846	-	-
Indirect Taxes	5,208	5,296	4,819	4,537	4,471	4,470	4,752	-
2. Domestic Absorption	36,937	37,304	33,524	29,300	27,955	27,798	29,506	-
Private Consumption	26,232	26,854	24,257	21,926	20,497	20,920	22,141	-
(per capita, New Pesos '000)	9,014	9,165	8,223	7,382	6,855	6,950	7,430	-
Public Consumption	4,244	4,562	4,452	4,322	4,347	4,479	4,820	-
Private Fixed Investment	4,312	4,287	2,680	2,205	1,699	1,459	1,526	-
Public Fixed Investment	1,943	1,780	2,485	1,266	1,310	836	957	-
Change in Stocks	206	-179	-350	-419	102	104	52	-
3. Current Account								
Resource Balance	-2,129	-1,835	-1,386	957	1,861	2,013	2,183	-
- Exports GNFS	6,106	6,483	5,801	5,697	6,744	6,892	8,164	-
- Imports GNFS	8,235	8,318	7,187	5,740	4,883	4,879	5,981	-
Net Factor Income	-389	-288	-775	-1,231	-1,588	-1,589	-1,453	-
4. Income (GNP)	34,419	35,181	31,363	29,026	28,228	28,222	30,236	-
(per capita, New Pesos '000)	11,828	12,007	10,632	9,773	9,441	9,376	10,146	-
B. CONSUMPTION, SAVINGS AND INVESTMENT (As % of GDP at current prices)								
1. Consumption 1/	88.9	88.3	88.1	87.3	86.6	89.0	87.2	-
Private	76.4	74.1	72.5	73.5	74.1	75.7	73.5	-
Public	12.5	14.2	16.6	13.9	12.5	13.3	13.7	-
2. Domestic Savings (DS)	11.1	11.7	11.9	12.7	13.4	11.0	12.8	-
National Savings (NS)	10.1	11.1	9.8	7.3	6.5	4.1	8.4	-
(NS as % of GNP)	10.3	11.2	10.0	7.7	7.0	4.5	8.8	-
- Private	4.4	7.3	14.4	8.2	7.2	3.9	5.7	-
- Public	5.8	3.8	-4.6	-0.9	-0.7	0.2	2.7	-
3. Fixed Investment	16.7	15.7	15.1	11.0	9.3	7.4	7.3	-
Private	11.4	10.7	7.9	6.9	5.2	4.6	4.4	-
Public	5.3	5.0	7.2	4.1	4.1	2.7	2.9	-
4. DS Surplus (4=2-3)	-5.6	-3.9	-3.1	1.7	4.1	3.6	5.4	-
NS Surplus	-6.6	-4.6	-5.3	-3.7	-2.8	-3.2	1.0	-
- Private	-7.0	-3.4	6.5	1.3	2.0	-0.7	1.2	-
- Public	0.5	-1.2	-11.8	-5.0	-4.8	-2.5	-0.2	-

1/ Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	118.5	129.7	128.7	102.4	101.8	127.7	127.5
- Wool	100.0	116.4	105.0	96.0	93.0	95.0	119.0	-
- Meat	100.0	151.2	144.0	197.0	118.0	108.0	148.0	-
- Fish	100.0	122.7	115.0	128.0	130.0	130.0	143.0	-
- Hides	100.0	154.3	221.0	256.0	284.0	184.0	199.0	-
- Manufactures	100.0	-	74.0	78.0	82.0	75.0	85.0	-
2. Exports: Prices	100.0	98.0	91.5	84.9	85.3	79.2	80.4	86.5
3. Imports: Volume	100.0	96.8	94.3	91.9	88.8	91.1	79.3	89.6
4. Imports: Prices	100.0	96.8	94.3	91.9	88.8	91.1	79.3	89.6
5. Terms of Trade	100.0	101.2	97.0	92.4	96.1	87.0	101.5	96.5
6. Real Exchange Rate	100.0	108.9	117.5	72.2	69.2	66.9	65.9	64.3
B. BALANCE OF PAYMENTS (US$ million)								
1. Resource Balance	-600	-414	-282	106	222	220	320	156
Exports GNFS	1,526	1,667	1,304	1,300	1,289	1,253	1,500	1,501
Imports GNFS	2,126	2,081	1,586	1,194	1,067	1,033	1,180	1,345
2. Interest Payments	168	220	344	350	449	428	371	-
3. Current Account	-692	-478	-449	-188	-142	-108	94	-189
Direct Investment	290	49	-14	6	3	-8	-5	-
Change in Foreign Debt	221	337	232	763	6	73	56	-
Use Net Reserves	-114	-20	586	-82	51	55	-272	-
Other Financing	295	113	-363	-498	83	-11	126	-
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	1.7	2.2	2.6	3.3	3.3	3.9	3.8	-
Debt (US$ billion, 1980 prices)	1.7	2.0	2.4	2.9	2.8	3.4	3.4	-
Real debt growth (%)	9.9	20.0	19.3	22.8	-2.4	19.5	-0.7	-
Real cost of debt (%)	-	14.9	18.1	17.7	12.5	13.9	15.7	-
Debt/GDP (current exchange rate)	16.4	19.2	28.6	61.6	62.7	76.2	60.6	-
Debt/GDP (1980 PPP exchange rate)	16.4	19.2	24.2	30.8	30.1	34.6	30.6	-
2. Interest Payments								
As % GDP (current exchange rate)	1.7	1.9	3.7	6.5	8.6	8.4	6.0	-
As % GDP (1980 PPP exchange rate)	1.7	1.9	3.2	3.3	4.1	3.8	3.0	-
As % Exports GNFS	11.0	13.2	26.4	26.9	34.8	34.2	24.7	-
3. Resource Balance								
As % Int. Payments	-357.1	-188.6	-81.9	30.2	49.6	61.3	86.3	-
As % Total Debt	-36.2	-19.0	-10.6	3.2	6.8	5.6	8.5	-

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1 Current Revenue	24.1	24.8	21.9	21.8	20.9	21.0	24.0	-
2. Current Expenditure	18.3	21.0	26.5	22.7	21.6	20.8	21.8	-
Public Consumption	-	-	-	-	-	-	-	-
Interest Payments	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	-	-	-	-	-	-	-	-
3. Current Savings	5.8	3.8	-4.6	-0.9	-0.7	0.2	2.7	-
4. Capital Expenditure	5.3	6.1	5.4	4.0	3.7	3.3	3.9	-
5. Public Sector Deficit	-0.5	2.3	10.0	4.9	4.4	8.1	1.2	-
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	0.0	0.0	8.3	11.5	4.9	3.4	3.8	-
8. Total Deficit (=5+7)	-0.5	2.3	18.3	16.4	9.3	6.5	5.0	-
9. Inflation Tax (M1)	3.5	2.3	1.9	4.0	4.2	5.4	4.9	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	45.1	31.0	10.0	46.4	65.9	101.7	74.4	61.2
Money (M1)	47.4	8.4	39.2	9.0	48.4	107.5	83.0	22.2
Domestic Credit (net of quasi money)	43.5	-15.2	740.6	41.5	55.0	41.9	17.9	-
2. Prices (Dec/Dec)								
CPI	42.8	29.4	26.5	51.5	66.1	83.0	76.4	57.4
Exchange Rate	18.4	15.7	191.1	28.1	71.7	68.4	44.8	54.7
3. Nominal Interest Rate (lending rate)	65.1	59.8	51.5	94.4	83.2	95.0	94.7	-
Real Interest Rate	32.0	38.5	51.2	63.8	34.6	36.3	45.8	-

Table M: VENEZUELA: MAIN INDICATORS OF THE ADJUSTMENT PROCESS

Part I: National Accounts

	1980	1981	1982	1983	1984	1985	1986	1987
Population (millions)	15.0	15.5	15.9	16.4	16.9	17.3	17.8	18.3
A. OUTPUT, ABSORPTION AND INCOME (Bolivares million, at 1968 Prices)								
1. GDP	75,857	75,628	76,144	71,867	70,894	71,089	74,756	76,027
(growth rate, %)	-2.0	-.3	.7	-5.6	-1.4	.3	5.2	1.7
(per capita, Bolivares)	5,050	4,886	4,777	4,385	4,207	4,104	4,202	4,155
Sectoral GDP								
- Agriculture	4,765	4,676	4,843	4,863	4,901	5,180	5,489	5,710
- Crude Petroleum	5,466	5,320	4,816	4,566	4,593	4,305	4,587	4,370
- Manufacturing	12,277	12,028	12,542	12,346	12,970	13,189	13,931	14,450
- Construction	4,609	4,511	4,131	3,583	2,350	2,253	2,608	2,660
- Services	46,940	48,293	47,998	46,178	46,639	46,845	48,577	50,030
2. Domestic Absorption	97,484	97,586	100,086	81,643	83,922	85,400	88,717	-
Private Consumption	63,230	62,764	63,937	57,674	57,800	59,443	60,563	-
(per capita, Bolivares)	4,210	4,055	4,011	3,519	3,430	3,432	3,404	-
Public Consumption	12,259	12,934	12,810	12,459	12,573	12,314	12,299	-
Private Fixed Investment	11,462	9,196	7,023	4,140	6,111	5,944	5,365	-
Public Fixed Investment	10,828	13,763	15,079	12,140	7,098	8,222	9,781	-
Change in Stocks	-375	-1,072	1,237	-4,770	340	-523	709	-
3. Current Account								
Resource Balance	-21,547	-21,957	-23,942	-9,776	-13,028	-14,311	-13,960	-
- Exports GNFS	4,876	4,750	4,803	4,814	4,849	4,521	5,000	-
- Imports GNFS	26,423	26,707	28,746	14,590	17,877	18,832	18,960	-
Net Factor Income	395	733	-2,168	-3,071	-2,000	-3,208	-591	-
4. Income (GNP)	76,252	76,361	73,976	68,796	68,894	67,881	74,165	-
(per capita, Bolivares)	5,077	4,933	4,641	4,197	4,089	3,919	4,169	-
B. CONSUMPTION, SAVINGS AND INVESTMENT (as % of GDP at current prices)								
1. Consumption 1/	66.5	69.7	79.0	72.6	75.0	78.6	80.0	-
Private	51.4	54.4	62.0	58.5	62.1	65.1	65.6	-
Public	15.1	15.3	17.0	14.1	12.9	13.6	14.4	-
2. Domestic Savings (DS)	33.5	30.3	21.0	27.4	25.0	21.4	20.0	-
National Savings (NS)	33.9	31.1	18.8	23.5	22.1	16.4	19.2	-
(NS as % of GNP)	33.8	36.8	19.2	24.4	22.8	17.3	19.4	-
- Private	14.3	14.0	9.1	8.2	5.1	-2.8	2.4	-
- Public	19.6	17.1	9.6	16.2	17.0	19.3	16.8	-
3. Fixed Investment	25.2	24.5	24.1	19.1	14.3	15.4	19.2	-
Private	13.0	9.8	7.7	4.5	6.6	6.5	6.8	-
Public	12.3	14.7	16.4	14.6	7.7	9.0	2.4	-
4. DS Surplus (4=2-3)	8.2	5.8	-3.1	8.4	10.7	5.9	0.8	-
NS Surplus	8.7	6.6	-5.3	4.4	7.8	1.0	0.0	-
- Private	1.3	4.2	1.6	3.8	-1.5	-9.3	-4.4	-
- Public	7.4	2.4	-6.8	0.7	9.3	10.3	4.4	-

1/ Plus change in stocks.

Part II: EXTERNAL ACCOUNTS

	1980	1981	1982	1983	1984	1985	1986	1987
A. INTERNATIONAL TRADE (1980=100)								
1. Exports: Volume	100.0	97.8	95.7	95.4	97.8	90.8	96.5	88.8
2. Exports: Prices	100.0	107.0	89.5	82.5	119.7	128.2	111.5	143.9
3. Imports: Volume	100.0	99.6	104.1	53.9	68.8	76.0	78.7	80.4
4. Imports: Prices	100.0	111.9	120.1	127.3	149.9	172.9	204.0	212.1
5. Terms of Trade	100.0	96.2	74.5	64.8	79.9	74.1	54.7	87.8
6. Real Exchange Rate	100.0	111.9	121.1	110.3	93.6	89.9	75.1	55.0
B. BALANCE OF PAYMENTS (US$ billion)								
1. Resource Balance	4.9	3.8	-2.8	6.7	6.9	5.4	-0.4	1.6
Exports GNFS	20.0	20.9	17.6	15.8	16.8	15.0	9.5	10.6
Imports GNFS	15.1	17.1	19.6	9.1	9.9	9.6	9.9	9.6
2. Interest Payments	1.6	2.7	3.7	3.4	3.4	3.9	3.1	2.8
3. Current Account	4.7	4.0	-4.2	4.5	5.4	3.1	-2.0	-0.3
Direct Investment	0.1	0.2	0.3	0.1	0.0	0.1	0.0	0.1
Change in Foreign Debt	1.5	1.2	2.2	5.5	4.1	-1.1	6.7	-0.8
Use Net Reserves	-0.0	-2.6	-0.5	-0.3	-1.9	-1.8	3.8	1.1
Other Financing	-6.3	-2.8	2.3	-9.8	-7.7	-0.4	-8.5	-0.1
C. CREDITWORTHINESS								
1. Total Debt (US$ bil.)	29.4	32.6	31.9	37.3	36.2	34.7	33.9	31.8
Debt (US$ billion, 1980 prices)	29.4	29.3	28.7	33.1	31.4	30.2	30.4	27.8
Real debt growth (%)	6.9	-0.2	-2.3	15.2	-5.1	-3.7	0.6	-8.6
Real cost of debt (%)	-	-4.2	11.3	8.5	-16.2	-2.1	4.1	-4.7
Debt/GDP (current exchange rate)	49.7	48.2	47.1	55.1	73.1	70.6	67.8	-
Debt/GDP (1980 PPP exchange rate)	49.7	49.5	46.6	54.8	52.6	48.1	43.5	39.1
2. Interest Payments								
As % GDP (current exchange rate)	2.7	4.0	5.4	5.1	6.8	7.9	6.2	-
As % GDP (1980 PPP exchange rate)	2.7	4.1	5.3	5.0	4.8	5.4	4.0	3.4
As % Exports GNFS	8.1	12.7	21.0	21.6	28.0	26.1	32.6	26.4
3. Resource Balance								
As % Int. Payments	302.9	146.2	-56.2	197.1	205.0	137.8	-12.0	35.7
As % Total Debt	16.6	12.0	-6.4	18.1	19.1	16.6	-1.1	3.1

Part III: Other Macroeconomic Variables

	1980	1981	1982	1983	1984	1985	1986	1987
A. PUBLIC SECTOR FINANCES (as % of GDP at current prices)								
1. Current Revenue	40.2	39.0	34.2	32.5	39.2	38.3	32.0	-
2. Current Expenditure	21.8	23.2	24.2	22.5	23.8	23.4	22.6	-
Public Consumption	14.6	15.3	16.9	15.4	13.4	13.5	13.8	-
Interest Payments	3.8	4.3	5.3	4.1	6.5	6.0	5.2	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
Transfers	2.9	3.6	2.0	3.0	3.9	3.9	3.5	-
3. Current Savings	18.9	15.8	10.0	10.1	15.4	14.9	9.4	-
4. Capital Expenditure	18.8	16.2	20.7	14.4	11.2	12.1	16.4	-
5. Public Sector Deficit	-0.6	0.3	10.4	0.5	-4.0	-3.3	6.1	-
(excluding interest payments)	-4.4	-4.0	5.1	-0.6	-11.3	-9.9	0.9	-
6. Financing	-	-	-	-	-	-	-	-
- Internal	-	-	-	-	-	-	-	-
- External	-	-	-	-	-	-	-	-
7. Central Bank Losses	-	-	-	-	-	-	-	-
8. Total Deficit (=5+7)	-	-	-	-	-	-	-	-
9. Inflation Tax (M1)	3.6	2.0	1.4	1.6	4.1	1.4	2.9	-
10. Total Public Debt	-	-	-	-	-	-	-	-
B. MONEY GROWTH, INFLATION AND INTEREST RATES (%)								
1. Money Growth (Dec/Dec)								
Monetary Base	6.6	17.1	17.5	28.2	25.8	2.7	-18.2	16.4
Money (M1)	18.8	9.5	5.6	26.7	23.8	8.1	5.1	23.1
Domestic Credit (net of quasi money)	68.0	18.2	26.0	-16.5	21.4	-55.1	34.6	-8.1
2. Prices (Dec/Dec)								
CPI	19.6	11.0	7.8	7.0	18.3	5.7	12.3	36.1
Exchange Rate	0.0	0.0	0.0	0.2	74.4	0.0	93.3	0.0
3. Nominal Interest Rate (lending rate)	-	-	-	-	-	-	-	-
Real Interest Rate	-	-	-	-	-	-	-	-

The Debt Crisis and Economic Adjustment in Latin America

by
Sebastian Edwards

University of California
Los Angeles, California

UCLA Working Paper Number 531

November 1988

Abstract

This paper discusses several aspects of Latin America's adjustment process following the debt crisis. Some of the issues addressed include the role of the international financial system, the role of the IMF and the World Bank, and the costs of the adjustment. The discussion also deals with individual countries' experiences, with special emphasis on the heterodox anti-inflationary programs.

THE DEBT CRISIS AND ECONOMIC ADJUSTMENT IN LATIN AMERICA

Sebastian Edwards

University of California, Los Angeles

I. Introduction

As we enter the final years of the 1980s we find the Latin American countries struggling to get back on their feet. After what seemed to be an auspicious beginning, the decade has become an economic nightmare for the region; in the last few years it has suffered the worst recession since the 1930s. What in August 1982 -- when Mexico disclosed its financial difficulties -- seemed to be an isolated case of temporary illiquidity soon spread out to most of the developing world, placing the stability of the international financial system in serious jeopardy. The adjustment process followed between 1982 and 1987, which can best be described as emergency stabilization, has been extremely costly; real income per capita experienced steep declines in most countries.[1]

A direct effect of the crisis has been the mushrooming of books, pamphlets and manifests dealing with different aspects of the problem. Some of this literature is of a remarkably high quality, some will be quickly forgotten and a non-trivial proportion is plainly awful. In this article I review a small number of volumes that in one way or another deal with the crisis. Many of them are collections of articles, making the reviewer's task rather difficult. The different components of these books not only differ in quality, but many times they also lack unity. For this reason I will deal with these collections in a rather selective way; I will dwell on some of the essays and will almost ignore others. I will try, however, to provide an assessment of each volume as a whole.

The article is organized as follows: in Section II I deal with the role of the international monetary system in the unleashing of the crisis. Section III focuses on the specific role of the International Monetary Fund (IMF) and its policies. In Section IV I review individual country experiences, placing particular emphasis on the recent attempts to implement unorthodox stabilization programs (i.e., the Austral and Cruzado plans and the APRA experience in Peru).

II. The International Monetary System, Latin America's Development Strategies and the Debt Crisis

The book by Griffith-Jones and Sunkel (Debt and Development Crises in Latin America: The End of an Illusion) constitutes an ambitious attempt to insert the debt crisis within the evolution of the international monetary system. In a nutshell the authors' position can be summarized as follows: the debt crisis is a representation of a broad and deep crisis of the international monetary system and of the development strategies followed by the developing world in the last decades. Consequently, they argue, a solution to the debt crisis presupposes reforming the international monetary system and drastically changing the focus of the developing strategies. With respect to the international monetary system the authors point out three areas of failure: first, it has been unable to provide to the LDCs the amounts of funds "required" to achieve their development targets. Second, capital flows to the developing countries have been procyclical, making it difficult for these countries to use foreign funds to face world recessions. And third, contrary to the 1950s, 1960s and 1970s, in the 1980s we have not witnessed the emergence of a new financial sector that would have led the world out of the crisis. The book contains abundant statistical information, and the authors provide a fairly detailed plan for reforming

the international system.

Griffith-Jones and Sunkel have written a nostalgic book whose tone evokes the earliest structuralists thoughts of the 1950s and 1960s. None of the criticisms of structuralism of the last two decades, nor the developments introduced by the neostructuralists in the last few years can be found here. The book contains a number of claims that are either inaccurate or unsupported by empirical evidence. For instance, on page 11 the authors sustain that in response to the crisis the Latin American nations implemented "restrictive policies ... to stabilize the balance of payments <u>and keep the economies open</u>" [emphasis added]. However, it is well-known by careful observers of the Latin American economic scene that the vast majority of countries in the region imposed extremely restrictive trade, capital and exchange controls (i.e., they <u>closed</u> their economies) as a response to the crisis. Only very recently, and slowly, some countries are venturing into trade liberalization reforms.[2] Another example can be found on pages 61-62 where the authors claim that banks made large monopolistic rents in the rescheduling process. Certainly, the brief paragraph in Chapter 8 (pages 113-114) does not provide a rigorous empirical verification of the hypothesis. In fact, in a recent extensive empirical study that covers a large number of banks and loans to the LDCs, Ozler (1988) found that although banks made above normal profits for the reschedulings of the 1970s, they made below normal profits during the reschedulings that followed the 1982 crisis.

Given the authors backgrounds and previous writings, it is puzzling that this book makes so little reference to historical events. Latin America's economic history is replete with debt crises. Although very few episodes exhibited the depth and seriousness of the current crisis, there

are many lessons that can be learned from the past. A fascinating literature on the subject has emerged in the last few years. Just to mention two studies, Eichengreen (1988) discusses why in the 1930s the debtor countries failed to form a united front to negotiate with their creditors; at the end in the 1930s, as in the 1980s (at least up to now) the case-by-case approach was adopted. Lindert and Morton (1988) have shown that after the debt crisis of the 1930s the international financial community failed to differentiate between "well" and "bad" behaved debtors. Even those countries that kept current in their payments were subject to "penalties", and did not have access to voluntary lending. Naturally, this information is extremely valuable when evaluating the costs involved in not paying all or part of the debt.

Tsoukalis and Posner have put together collections dealing with the international monetary system. Although the aim of both of these volumes goes beyond the developing countries and the debt crisis, they contain some interesting articles on the poorer nations. The Tsoukalis volume (The Political Economy of International Money) contains three articles that are particularly relevant. In a highly informative paper Susan Strange analyzes the evolution of the monetary system from the mid-1970s to the mid-1980s. This paper provides a much needed survey on the evolution of the views of different schools of thought. According to Strange monetary mismanagement in the industrialized world is at the core of many of the current international problems. She persuasively argues that the current wave of protectionism in much of the industrialized world is one of the most serious consequences of their lax monetary policies. In the same volume Bird and Killick provide a summary of their research on the role of the International Monetary Fund in developing countries' macroeconomic adjustment. (Section

III of this review article deals specifically with the IMF.)

Finally, Lewellyn discusses the role of private banks. There is no doubt that understanding the behavior of private banks is an essential component of any serious evaluation of the role played by the international monetary system in the unleashing of the debt crisis. Lewellyn provides some helpful elements towards the fulfillment of this task. He starts by pointing out that two major developments in the 1970s were the shift from bond to bank financing, and from official to private sources of funds. He argues that after some years of smooth functioning the system faced a confidence problem in the early 1980s. There was mounting concern on the poorer countries' ability to service their debts. Lewellyn goes on to question the adequacy of the case-by-case approach towards solving the crisis that followed in 1983-84. He argues in favor of a long term solution that would include some reforms of the international monetary system, including taking provisions to avoid a similar crisis in the future.

Overall Tsoukalis has put together a useful volume. Among the chapters not reviewed above I particularly recommend Williamson's piece. By focusing on the role and activities of international economists he masterfully discusses important aspects of the sociology of the economic profession.

The Posner book (Problems of International Money, 1972-1985) is a natural complement for the Tsoukalis volume. Many authors appear in both collections, and there is an unavoidable sense of dejà vu. What makes Posner's book interesting in its own right is that it brings together articles by a number of senior IMF officials and some of the most perseverant Fund critics. The book is in fact a joint venture of the IMF and the Overseas Development Institute, a London research institution directed by Tony Killick a well-known Fund critic. Although not directly related to the

LDC debt the paper by G.G. Johnson on Fund surveillance is particularly interesting since it clearly explains the evolution of the Fund's role after the abandonment of the Bretton Woods system. One gets a clear impression that the abandonment of the fixed exchange rates system in 1973 provoked a serious process of soul-searching at the Fund; all of a sudden it was not clear what was the role of the institution. What is ironic, perhaps, is that the debt crisis and the concomitant need for massive macroeconomic adjustment in the LDC's has given a new and important role to the Fund. In another paper, Michael Dooley provides an interesting study of the role of international reserves in the international monetary system. His analysis of the currency composition of reserves holdings by a large number of LDCs is particularly interesting, since it uses data not generally available to academic researchers. Dooley, however, says very little about the nature of the optimizing problem that gives rise to a demand for international liquidity by the developing countries. What he says is, in fact, tautological: "Countries tend to adjust their reserves holdings until the benefits derived from such holdings are equal, at the margin, to the net cost of holding them" (p. 108). One can only hope that any junior majoring in economics would, under pressure (i.e., in an exam), be able to say that much!

Killick and Tsoukalis argue in their respective contributions that one of the most serious flaws of the international monetary system is the lack of symmetry in international adjustment; surplus countries should share the burden of adjustment with deficit countries. By doing this, they argue, the world economy as a whole would benefit. The authors, however, don't discuss how this symmetric adjustment can be enforced. If surplus countries have not yet willingly participated in a major program along these lines, what could make them participate? How can free-rider problems be avoided? None

of these questions is addressed in this book. In fact, ignoring the international political economy dimensions of this problem constitutes the major shortcoming of an otherwise interesting volume.

Perhaps one of the most important question regarding the debt problem is why the unfavorable external terms of trade and interest rate shocks -- which had a recent historical precedent in the 1975 world recession -- have resulted in the unleashing of such a major crisis that has brought regional growth to a halt for a number of years? Why weren't the Latin American countries able to quickly recover as they had done after the even more severe 1975 world recession? In a characteristically stimulating article in the Thorp and Whitehead volume, Diaz-Alejandro argues that the shocks of the 1980s were greatly compounded by the "breakdown" of the international financial system that occurred in 1982. Contrary to 1975, when the Latin American nations "borrowed" themselves out of the recession, in 1982 the financial community cut the flow of loans to Latin America, rather than increasing it. Diaz-Alejandro goes as far as saying: "[W]hat could have been a serious but manageable recession during the early 1980s in Latin America has turned into a major developing crisis mainly because of the breakdown of international financial markets and an abrupt change in conditions and rules for international lending" (Thorp and Whitehead, 1986, p. 12). This is, in fact, the view taken by the majority of the contributors to the volumes reviewed in this section.

Although these authors are right when pointing out that the international financial system exhibited some serious deficiencies in the period surrounding the crisis, it is not clear whether there was a complete "breakdown". Of course, the reason why Latin America could "borrow" itself out of the recession in 1975 and could not do it in 1982 is that in the late

1970s and the first years of the 1980s Latin America borrowed so much that, when the 1982 recession erupted, most of these countries had already used their borrowing capacity. Perhaps the main inefficiency of the system was that international banks failed to exercise the prudence traditionally associated with bankers. They massively lent to Latin America in the mid- to late-1970s, disregarding issues as important as how the funds were being used (i.e., to finance investment or to fuel capital flight), and whether the countries were following "sound" policies. Indeed, in the process of competing to recycle the abundant petrodollars the banks literally "pushed" loans down the throats of the Latin American countries. The result was a highly procyclical lending pattern. A second area of inefficiency was that when the crisis actually erupted, the banks failed to distinguish between the different Latin American nations; the banks exhibited a remarkable herd instinct pulling out simultaneously from the region as a whole. Even Colombia, a country without major problems is finding it increasingly difficult to get their loans rolled over.

Now that the collapse of the international monetary system has been aborted the most important outstanding issue refers to working out debt relief packages (including debt forgiveness) that would alleviate the burden of making huge transfers and would solve the debt overhang problem. Whether banks will participate willingly in such a scheme is not clear. Sadly, recent evidence suggests that shortsightedness is one of the banks more prominent characteristics.

III. The Role of the International Monetary Fund

The International Monetary Fund (IMF) is a mysterious, and often feared institution. Among the many myths that surround it, perhaps the best known

and least accurate is that its staff members fly around the world (First Class, naturally) imposing unnecessarily harsh adjustment policies to the poor countries. This, of course, is far from the truth. Strictly speaking the Fund has no real power to impose any policy. The Fund is, however, a combination of a financial examiner and an international lender of last resort. Member countries that face financial difficulties approach the Fund for short and medium term financial help. Before providing such assistance, and this is the catch, the Fund requires from the country an agreement that the "house will be put in order". This usually means undoing the policies that in the first place led into financial trouble, or adjusting to new international circumstances in those cases when the difficulties have an external origin. Most times these programs call for devaluation, credit restraints, regaining fiscal discipline and hiking public enterprises prices. Only when this agreement has been reached does the IMF disburse part of the money. Further disbursements are made after the Fund is satisfied that the country is indeed following the agreed upon policies. This concept of tying financial assistance to a certain policy package is know as IMF conditionality. Three of the books and several of the essays reviewed here deal with this issue.

Critics of the Fund have traditionally argued that IMF policies narrowly focus on short term financial and external targets paying little, if any, attention to growth. In his new book (The International Monetary Fund and Latin America: Economic Stabilization and Class Conflicts), Manuel Pastor criticizes both the Fund and its traditional critics. Taking a neo-Marxian perspective Pastor argues that the critics excessive focus on growth (or lack of it) is misplaced, and that the most serious limitation of Fund programs refers to their disregard for income distribution and for poverty.

In many ways Pastor's book is a refreshing contribution. First, he has attempted to make his neomarxian view accessible to those that are not initiated into the political slang of the marxian left. Second, and contrary to so many Latin American marxists, Pastor makes a serious effort to document with empirical evidence his theoretical and analytical claims. However, the author's enormous enthusiasm -- which is what makes the book refreshing -- is also its main limitation. The style and the inability to follow the arguments all the way through constantly remind the reader that this book has grown directly (and with little revisions, I would guess) from the author's doctoral dissertation. Obviously, the fact that this work is based on a Ph.D. thesis is not a drawback on itself. Many modern classics in the social sciences had their origins in doctoral research. Pastor, however, has not polished the material sufficiently.

The most interesting part of this book is contained in Chapter 4 where Pastor presents empirical findings regarding the effects of Fund programs (both stand-by and Extended Fund Facility) in 18 Latin American countries. Using a battery of statistical tests he finds that Fund programs have improved the balance of payments, have not improved the current account, and have reduced labor shares in real incomes. With regard to real growth he finds that there is no clear cut evidence. The most important new result, and the one on which Pastor focuses most of his remarks, is that Fund programs have a negative effect on income distribution. Although highly useful the analysis has some methodological limitations. First, it is concentrated on the very short run, looking only at what happens one year after the program. Undoubtedly some of the Fund policies, and especially those geared at aggregate supply, take a longer period of time to bear fruit. Second, the analysis is based on a before and after methodology, where values of the

key indicators before and after the programs are compared; no effort is made to separate the effect of Fund programs from those stemming from other disturbances. Third, the author does not provide a coherent "counterfactual" adjustment policy.[3]

Margaret de Vries was, until her recent retirement, the official historian of the International Monetary Fund. In her new book she traces the evolution of the Fund's involvement with adjustment programs from 1945 to 1986. The approach followed is historical, and de Vries makes great efforts to document a number of small details regarding Fund operations. This attention to minutia makes the book somewhat boring to those interested in the big picture and not in the day-to-day working of the Fund. However, what is interesting about this book is the chronicle of the evolution of the Fund from its original role, as envisaged by the Articles of Agreement, to its recent participation in the debt crisis. What emerges from these pages is a rather dynamic institution that has been able to adapt to new times and even to invent new tasks for itself (surveillance, for example) when, after the breakdown of the Bretton Woods system its own raison d'etre was under question. The book failed, however, in addressing any of the criticisms that have been made about Fund operations throughout the years.[4]

SELA's El FMI, el Banco Mundial y la Crisis Latino Americana includes a collection of articles, mostly by prominent Latin American economists, dealing with the Fund and the World Bank relations with the Latin American countries. The general tone of the book is critical and a number of reform proposals are offered. The book contains three general articles by Edmar Bacha and Miguel Rodriguez Mendoza, Bacha, and Richard Feinberg and Bacha, as well as articles dealing with specific countries relations with these institutions -- Argentina, Brazil, Colombia, Jamaica, Mexico, Peru and the

Dominican Republic. Although the criticisms of the Fund presented here are not new, I found Bacha's article on reforming IMF operations particularly interesting. The most important changes he advocates refer to: (1) implementing two-tier conditionality -- one tier for variables expressed in foreign exchange and one for variables in domestic currency; (2) adopting "inverted conditionality" where the local authorities offer their program and the IMF monitors its achievement; and (3) adopting an analytical framework to formulate programs that incorporate the development of the 1960s and 1970s on disequilibrium macroeconomics. There is no doubt that Bacha is a formidable critic of the Fund; he understands its operation and has thought carefully about alternatives. His proposals, however, are impractical and, I would even say somewhat naive. Why would the IMF (or, to put it more brutally, its larger members), agree on adopting the most radical reform propositions?[5] The answer to this question lies on the realm of international political economy, an area completely absent from this volume. In addition a number of Bacha's propositions are doubtful from a purely economic point of view. For example, the economics profession has largely abandoned disequilibrium models. After a promising beginning it has been found that these models are difficult to manipulate and that they often fail to provide useful insights. Also, it is unclear whether it is useful to dichotomize the functioning of an economy between "variables expressed in foreign exchange" and "variables in domestic currency". The general equilibrium interrelations in modern economies are extremely complex; there is little doubt that the evolution of "domestic currency" variables such as inflation will have an impact on foreign sector variables.

In spite of its limitations which include the disregard for international political economy aspects and considerations about the modern

theory of policy making in an uncertain environment, this is a valuable volume. The country chapters provide a number of details regarding Fund operations in Latin America -- including the contents of many letters of intent -- that cannot be found elsewhere.

IV. Country Experiences with Adjustment

Thorp and Whitehead's volume (Latin American Debt and the Adjustment Crisis) is the third in a series dealing with different aspects of adjustment in Latin America. As its two predecessors this book contains a number of country specific chapters as well as a couple of essays dealing with the region as a whole. The countries covered are Argentina, Brazil, Chile, Colombia, Peru and Mexico; in addition there is a chapter on the Central American nations. The unifying theme is the limitations of "orthodox" adjustment policies. These are described as policies centered around the need to impose fiscal discipline and restraining domestic credit creation. What makes this volume particularly interesting is that these essays were written before the different "heterodox" programs (the Cruzado and Austral plans and the APRA program) were implemented in full force. In fact a recurrent theme throughout the volume is the belief that inflation is an "inertial" phenomenon. The authors of these essays express great confidence that such heterodox plans would succeed and greatly help adjustment in the region. History has shown that their confidence mainly reflected wishful thinking. At the time of these writing there is wide agreement that these plans were a big flop. Their failure, however, does not necessarily reflect an incorrect diagnosis -- in fact there is little doubt that in Brazil inertia is a crucial force -- but rather very poor implementation. I will return to this theme below when reviewing the special issue of El Trimestre

Economico devoted to the heterodox programs.

On the whole Thorp and Whitehead have produced a valuable volume that not only contains a wealth of information about recent macroeconomic developments in the region, but also provides a glimpse of what some prominent Latin American economists -- some of which may be called to hold public office in the years to come -- think about a number of key issues. It should be noticed that the selection of the contributors reflects the particular views of the editors; there is a fair amount of Fund bashing and skepticism on the efficiency of markets.

The chapter by Carneiro on Brazil provides an interesting account of the Brazilian negotiations with the IMF. He clearly points out how this process can be draining for the local authorities, and agrees with the authors of the SELA volume about the difficulties usually found in achieving the domestic targets. Perhaps the most important point made by Carneiro is that since most of the Brazilian debt is government debt, its payment will require a transfer from the private to the public sector. This is in fact one of the most serious and least understood aspects of the crisis: the debt crisis is as much a domestic fiscal problem as an external problem. Carneiro's chapter is full of references to the inertial aspects of inflation and the needs to tackle the indexation mechanism in order to achieve a semi- permanent solution to the inflation problem. The Ros chapter on Mexico provides a large amount of information, and focuses on the role of capital flight in the Mexican crisis. This is an important issue since it clearly points out that those that benefited from the acquisition of the debt are not the ones that are now shouldering most of the costs implied in paying it. Surprisingly the essays in this volume do not devote much space to discussing this key issue.

In his chapter on Chile's economic policy under Pinochet, Whitehead analyzes the causes behind the collapse of the Chilean economy in 1982. After discussing the roles of exchange rate and monetary policies he devotes a section of the chapter to analyze the relation between the economic policy and the political nature of the Chilean regime. He argues that given the dictatorial and right wing nature of the government we should not be surprised by the inflexibility and dogmatism exhibited by the Chilean economic team -- the so-called "Chicago boys".[6] Whitehead's argument goes as follows: since Pinochet's initial goal was to destroy the Allende legacy and to institute a free market system, the "Chicago boys" pushed the free market reforms at maximum speed, without any regard for their short and medium term consequences. He goes as far as saying that "high unemployment might actually have some attractions for the Chilean regime as a policy objective" (page 146). I find this view so far-fetched, that I can only compare it to the hypothesis entertained by the Chilean extreme right regarding the economic policies of the Allende government. According to this hypothesis Allende's Economics Minister Pedro Vuskovic deliberately designed a policy package aimed at destroying the Chilean capitalist economy; from its ashes a new socialist economy was to be built. Of course, all of this is rubbish.

In interpreting economic policymaking during Pinochet, Whitehead altogether misses a crucial point: although Pinochet and the Chilean armed forces were strongly anti-communist, or more accurately anti-Marxist, initially they were <u>not</u> in favor of a free market system. In fact it is well known that the Chilean military had traditionally been highly nationalistic in economic matters, and that they favored some type of indicative planning and an important government role in the economy (see Edwards and

Edwards, 1987, Ch. 4). A key question is why did the military end up embracing the policies of the "Chicago boys"? Why didn't they draw from the Christian Democrats program? After all, that party initially supported the coup and many of its militants participated in the government economic team. The "Chicago boys" were able to retain the military's confidence only to the extent that their policies "worked" in the sense of reducing inflation, and especially after 1975, generating growth. The policy mistakes that contributed to the collapse of 1982 were not the result of a conspiracy to starve the working classes, but rather the result of technical miscalculations that were fueled by arrogance. As I have argued elsewhere the dictatorial nature of the regime contributed to the maintenance of these incorrect policies for a long period of time (Edwards and Edwards, 1987).

Whitehead's article ends with a pessimistic assessment of the medium terms prospects for the Chilean economy. However, and to most observers surprise, in the last few years the Chilean economy has recovered with great vigor. At this junction Chile's problem is not strictly the economy but more fundamentally the political future of the country. When this article is published we will already know whether the Chilean people has succeeded in defeating the odds, and manage to head back towards democracy.

Although due to space considerations I cannot go in detail into the other chapters in this book, I strongly recommend Ocampo's chapter on Colombia. In a characteristically lucid style Ocampo analyzes how (and why) Colombia was spared from the general collapse of the Latin American economies. Unfortunately, recent developments, and in particular the hard-to-understand attitude of the private banks, may show that Ocampo's cautious optimism for Colombia's future was premature.

One of the most important lessons emerging from Latin America's macroeconomic experiences during the 1980s has to do with the dynamics of high inflation. As the IMF staff dealing with Brazil learned the hard way, in highly indexed economies inflation acquires a life of its own; inertial forces become dominant and the monetary authorities have little alternative but to validate these inertial pushes. The book by Bresser Pereira and Nakano (The Theory of Inertial Inflation: The Foundation of Economic Reform in Brazil and Argentina) deals with the theory of inertial inflation, while the articles of the special issue of El Trimestre Economico edited by José Antonio Ocampo deals with recent anti-inflationary programs in Latin America with special emphasis on the heterodox programs of Argentina, Brazil and Peru. Both volumes are highly recommended; they clearly capture an important new view on inflation.

In their book Bresser-Pereira and Nakano rightly note that in order to fully understand chronic inflationary processes it is necessary to go beyond the narrow realm of economics and tackle political and distributive issues. Indexation is nothing more than the institutionalization of a defense mechanism. Indexation can, however, become so entrenched as to alter the dynamics of inflation. In these cases (i.e., Brazil), inflation can only be reduced if the economy is de-indexed. There is little doubt that the Cruzado and Austral plans were based on the correct diagnosis regarding the role of indexation. The implementation of both plans, however, badly erred in not enforcing the required demand management policies alongside the incomes policies and the heterodox shocks. Bresser-Pereira and Nakano have a point when they argue that the orthodox approach that relates fiscal deficits to money creation, and money creation to inflation is very simplistic and almost tautological. But, it is exactly because it is a

tautology that it cannot be ignored when implementing a stabilization program. It doesn't matter how many heterodox shocks are applied, if the fiscal finances are not put in order inflation will not go down; ignoring this principle is not only bad economics but also irresponsible politics. Most of the Latin American democracies are too fragile as to put them at risk with irresponsible economic policies.

The more interesting, and troubling, contributions to the special issue of El Trimestre Economico are the articles on Peru by Richard Webb, Jurgen Schuldt and Rosemary Thorp. In August of 1985 the newly elected government of President Alan García instituted a new and "heterodox" anti-inflationary plan. The APRA had inherited a crippled economy with an annual rate of inflation that exceeded 200%. The Peruvian experience, however, has been significantly different from that of the other two heterodox cases -- Argentina and Brazil. First, in Peru wage and price indexation was not generalized and did not constitute a serious problem. Second, in Peru the economy had become highly "dollarized" during the last couple of years of the Belaunde government. Third, early on Peru reduced its foreign debt burden by limiting interest payments to approximately 10% of exports. And fourth and most important, the Peruvian program went well beyond reducing inflation; it was really a development plan whose ultimate aim was to redirect the Peruvian economy. Of the three articles on Peru in this collection Rosemary Thorp's is the most interesting one. Thorp has for a long time been a student of the Peruvian economy, and in this article she provides a clear description of the rationale behind the APRA program. It is difficult to understand, however, why even in the light of the very poor results of the program she insists on calling it a "success" (page 366).

The Peruvian program consisted of the following key measures: price freeze, wage rate increases, tax cuts, exchange rate pegging, reduced payments on foreign debt interest, and an increase in government expenditure. The program was put together in a hurry. As Webb explains it was only presented to Garcia on July 31, 1985; the main measures were implemented during the first week of August, 1985.

As Dornbusch (1988) has recently pointed out, the Peruvian program completely disregarded every basic principle in economics. For instance, its architects argued that the fiscal deficit has no effect on inflation. As an act of faith they pointed out that the Peruvian fiscal deficit was not a cause, but rather a consequence of inflation. What evidence backed this assertion? Certainly not the existence of indexation, since as Thorp recognizes this was not important in Peru. An important element of the Peruvian program was the belief that the economy had large "unutilized capacity" and that, consequently, higher aggregate demand -- stimulated via hikes in domestic credit -- need not be inflationary. All it takes, the argument goes, is to freeze prices and increase wages to the right groups. However, history has shown time and time again that this policy has a very short-run positive effect on output. As soon as inventories are exhausted and foreign exchange is used up, a serious process of repressed inflation takes over. The external sector enters into a crisis, the real exchange rate becomes seriously overvalued, severe exchange and trade controls are imposed and the productive side becomes highly distorted. The formal sector shrinks and the underground economy thrives. As activities shift into the informal sector, sources of taxation disappear. The fiscal deficit broadens and inflationary pressures become more important. Sadly, a vicious circle develops, and getting out of it becomes increasingly difficult. This is

exactly what has happened in Peru; the country is rapidly approaching economic and political suicide.

Why didn't the architects of the program or their academic advisors anticipate these developments?[7] The problem, I think, is that they failed to learn the lessons from recent Latin American history. As it turns out the Peruvian program has a recent predecessor in the Unidad Popular program in Chile. The unutilized capacity diagnosis, the skepticism regarding the fiscal sources of inflation, the price freezes, the overvaluation of the exchange rate and the populist hike in wages, just to mention some elements, were all present in Allende's program. As any careful student of Latin America knows, the Unidad Popular program quickly resulted in unsustainable economic pressures, repressed inflation and a major crisis that ultimately helped trigger the coup that led to 15 years of Pinochet. One can only hope that President García will have the vision as to change course before it is too late. Democracy is too precious to risk it by implementing economic policies that have proven to be a disaster.

FOOTNOTES

[1]On the debt crisis see, for example, the collection of articles forthcoming in Edwards and Larrain (1989) and Sachs (1988).

[2]See, for instance, the discussion in my forthcoming article in Sachs (1988) debt volume.

[3]The emphasis here is on "coherent". Pastor, of course, pushes the Marxist view that only structural (revolutionary) changes will in the end solve these problems. History, however, is stubborn and has shown that even socialist countries cannot escape the need to adjust when facing imbalances.

[4]Notice, however, that through the years the Fund has been receptive to criticisms and has made effort to establish an intellectual dialogue with the critics. In fact, the Posner volume reviewed above is a good example of this.

[5]The emphasis here is on "radical". The Fund has, in fact, already adopted some of the less radical proposals such as contingent conditionality.

[6]In this section Whitehead is partially reacting to my own view on the dogmatism of the "Chicago boys". See pages 140-145 of Whitehead's article as well as my 1984 article.

[7]In a recent book, El Perú Heterodoxo: Un Modelo Económico the architects of the plan expose the technical underpinnings of the program. The volume is full of equations and statistical jargon, and a number of econometric models of a 1960s vintage are presented and discussed. However, these technicalities fail to disguise the lack of economic coherence and judgment.

BIBLIOGRAPHY

Dornbusch, R. (1988), "Peru in the Brink," unpublished ms., MIT.

Edwards, S. (1984), "Diez Años Con Políticas de Mercado Libre," Estudios Publicos, no. 14, Fall.

_____ (1988), "Structural Adjustment in Highly Indebted Countries," in J. Sachs (ed.), Developing Country Debt and Economic Performance (University of Chicago Press).

_____ and A. Cox-Edwards (1987), Monetarism and Liberalization: The Chilean Experiment (Cambridge: Ballinger).

_____ and F. Larraín (eds.) (1988), Debt, Adjustment and Recovery: Latin America's Prospects for Growth and Development (Oxford: Basil Blackwell).

Eichengreen, B. (1988), "Resolving Debt Crises: An Historical Perspective," in S. Edwards and F. Larraín (eds.), Debt, Adjustment and Recovery (Oxford: Basil Blackwell).

Lindert, P. and P.J. Morton (1988), "How Sovereign Debt Has Worked," in J. Sachs (ed.) Developing Country Debt and Economic Performance (University of Chicago Press).

Ozler, S. (1988), "Evolution of Commercial Bank Lending to Developing Countries," UCLA Dept. of Economics Working Paper #497.

Sachs, J. (ed.) (1988), Developing Country Debt and Economic Performance (University of Chicago Press).

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

IDE

Banco Mundial

Martes, 4 de abril de 1989

Sesión 4

15:00 - 15:45

Tópico: La Macroeconomía del Déficit del Sector Público

Conferencista: Sr. V. Corbo (Banco Mundial)

Lectura Requerida:

1. **Buiter**, Willem, "Some Thoughts on the Role of Fiscal Policy in Stabilization and Structural Adjustment in Developing Countries", NBER Working Paper Number 2603, May, 1988.

2. **Fischer**, Stanley, "The Economics of the Government Budget Constraint", World Bank, Washington, D.C., March, 1989.

3. **Tanzi**, Vito, "Fiscal Policy, Growth, and Stabilization Programs", pp. 22-24, in Adjustment with Growth. Reprinted from Finance & Development - A Quarterly Publication of the International Monetary Fund and the World Bank, June, 1987.*

* Distribuído por separado.

Some Thoughts on the Role of Fiscal Policy in Stabilization and Structural Adjustment in Development Countries

by

Willem H. Buiter
Department of Economics
Yale University

NBER Working Paper Number 2603
May 1988

NBER Working Paper #2603
May 1988

Some Thoughts on the Role of Fiscal Policy in Stabilisation and Structural Adjustment in Developing Countries

ABSTRACT

The paper analyses the role of fiscal policy in the restoration of internal and external macroeconomic equilibrium and in achieving structural adjustment i.e. major changes in the patterns of sectoral and intertemporal resource allocation. The focus is on developing and new industrial countries in need of both stabilisation and structural adjustment. The external transfer problem and the associated internal fiscal and real resource transfer problems are analysed with special emphasis on possible causes for the breakdown of the internal and external transfer processes. The concepts of national and public sector solvency are used to evaluate the mutual consistency and feasibility of fiscal, financial and monetary plans. Special attention is devoted to the links between the fiscal deficit and inflation and to the inflation tax.

Willem H. Buiter
Department of Economics
Yale University
37 Hillhouse Avenue
New Haven, CT 06520

1. Introduction

The processes of stabilisation and structural adjustment in developing countries and the fiscal policy options that are available can be understood only by recognising the often extreme initial conditions facing many of the countries concerned. These initial conditions are macroeconomic disequilibrium, both internal and external, and structural disequilibrium.

Macroeconomic disequilibrium is a syndrome containing many or most of the following ingredients. (See e.g. Ahamed [1986], Dervis and Petri [1987] and Sachs [1987]. A large (and often unsustainable) public sector financial deficit. A large stock of external debt (often public or de-facto publicly guaranteed), and severely restricted further access to external credit on commercial terms. A history of capital flight, resulting in a stock of external assets that is beyond the reach of the domestic fiscal authorities. A large incipient current account deficit, sometimes repressed by external credit rationing and by foreign exchange controls imposed by the domestic authorities. An overvalued real exchange rate. A high, although sometimes partially repressed, rate of inflation and significant recourse to the inflation tax as a source of public sector revenue. A large internal public debt (in the more advanced developing countries) competing for scarce domestic savings in a generally repressed domastic financial system. A narrow and often inequitable and inefficient public sector revenue base. Real wages in excess of market-clearing levels (and frequently highly index-linked) in the formal or the urben sector and widespread unemployment and underemployment of labour.

Structural disequilibrium refers to the need for significant changes in the patterns of resource allocation, production and absorption; for major changes in the *modus operandi* of important markets, including the domestic

financial markets, the foreign exchange market and the terms of private access to external credit), the domestic labour market and the domestic goods markets: for far-reaching changes in the system of property rights, rules, regulations and laws that govern production, exchange and distribution and for changes in the size and scope of the tasks performed by the public sector.

These twin disequilibria, which often interact and reinforce each other, tend to occur against a background of mass poverty, rapid population growth, and major social, cultural and political transformations. Political stability is often in doubt, both as regards the survival of incumbent administrations and as regards the viability of the very institutions of government. Credible precommitments to any long-term economic strategy are hard to come by in such an environment. Scarce administrative and managerial skills create further obstacles to the design and implementation of economic reforms.

Many of the disequilibria and policy dilemmas just referred to have been encountered also in the industrial countries. The USA today is characterised by unsustainable fiscal and external current account deficits. Hyperinflations occurred in Austria, Germany, Hungary and Poland in the 1920s. Many Western European economies have been diagnosed as suffering during the 1970s and 1980s from a whole array of structural rigidities, sometimes referrable to collectively as "Eurosclerosis", that prevent a full utilisation and efficient (re)allocation of resources.

The range and severity of the stabilisation and structural adjustment problems faced today by e.g. the IMF's 15 highly indebted countries[1] and by a large number of sub-Saharan African countries[2] are such, however, that a fresh restatement and adaptation of conventional macroeconomic analysis focussed on these countries' problems seem warranted.

This paper is both selective and eclectic in its coverage and is only intended as a catalyst for a wider-ranging and deeper discussion of the issues (see Buiter [1986] for an analysis focussed on developing country responses to a range of external shocks). The variety of economic systems, stages of economic development, problems and policy issues among the developing and new industrial countries is such, that it is very hard indeed to find a useful middle ground between the Scylla of ninety-odd book-length country studies and a dozen exhaustive comparative analyses and the Charybdis of a-historical, institution-free abstractions. Section 2 covers the external and internal transfer problems. Section 3 considers possible causes for the breakdown of the internal and external transfer processes. Section 4 deals with national solvency and Section 5 with government solvency. In Section 6 the inflation tax is considered in some detail and in Section 7 a recent quantitative approach used by the World Bank to evaluate the consistency of certain aspects of a government's fiscal, financial and monetary strategy is evaluated.

2. Fiscal policy and the external and internal transfer problems

To reduce the external current account deficit or to increase the surplus is to increase the *external transfer*. To realise this increased transfer of real purchasing power to the rest of the world an *internal reallocation real resources* is required: production and productive resources must be moved from the non-traded goods sector to the traded goods sector, i.e. to the production of exports or import competing goods. This requires a decline in the relative price of non-traded goods and, if the country has any international market power, a lower relative price of exports: the increased external transfer can be effected only through a lower real exchange and a worsening of the terms of trade. It has by now

become established (if sloppy) usage, to refer to the *increase* in the external transfer as the external transfer. I reluctantly adopt this usage where it does not lead to ambiguity or error.

In many developing countries (and indeed in such industrial countries as the USA), an unsustainable or undesirable external deficit tends to be associated, both statistically and causally, with an unsustainable or undesirable public sector financial deficit. The reduction of the external deficit in such cases requires the reduction of the public sector deficit.[3] This can be achieved either through cuts in public spending or through an increase in public sector current revenues: taxes, income from tariffs, public sector fees and charges etc. The expression *(internal) fiscal transfer* will be used to refer both to government revenue increases and to public spending cuts.[4]

The fundamental economy-wide financial balances identity in equation (1a,b) is a good place to start an analysis of the central role of fiscal policy in stabilisation and structural adjustment.

$$S^P - I^P + S^G - I^G = CA \tag{1a}$$

[5]

$$CA = TB + \frac{EA^*}{P} - i^*\frac{E}{P}\left[D^*-R^*\right] = \frac{E}{P}\,\Delta(R^*-D^*) \tag{1b}$$

S^P is private saving, I^P private domestic capital formation, S^G public sector saving, I^G public sector domestic capital formation, CA the current account surplus on the balance of payments and TB the trade balance surplus, all measured in terms of real GDP units. A^* is net foreign aid and other current transfer receipts (such as remittances)[6], D^* the stock of foreign debt and R^* the stock of foreign exchange reserves, all denominated in terms of foreign currency. E is the nominal spot exchange rate, P the domestic GDP deflator and i^* the foreign nominal interest rate.

It is sometimes informative to present the financial flows in equations (1a,b) "corrected" or "adjusted" for asset revaluations, i.e. for capital gains and losses on outstanding stocks of assets and liabilities. In practice this means correcting for the effect of inflation on the real value of nominal assets and liabilities and for the effect of exchange rate changes and inflation on the real value of foreign-currency-denominated financial claims. While there are no issues of principle involved in these measurement or presentational conventions, it is often helpful, since economic theory specifies preferences and production technologies as defined over real commodities, to express our uses and sources of funds in the same manner. Similarly, measuring these asset revaluations-corrected stocks and flows relative to some "scale variable" such as (trend) real GDP is helpful when the scale variable is, implicitly or explicitly, used to define a solvency constraint or other feasibility constraint. These issues are considered further in Sections 4 and 5.

Equations (2a,b) below introduce the distinction between private and public external debt. This distinction has often been more important formally than substantively. The debt crisis since 1982 has been a recent reminder of the fact that many de jure or formally private liabilities are de facto publicly guaranteed. Private foreign assets often escape the grasp of the domestic fiscal authorities. Whether one labels this (privately rational) external portfolio diversification or capital flight, one of its consequences is that the tax base becomes narrower, implying the need for higher tax rates on the remaining tax base, increased recourse to seigniorage (the inflation tax) or increased borrowing.

Private and public saving are defined in (2a,b)

$$S^P \equiv Q - J - T + i\frac{B}{P} - i^* \frac{ED^{*P}}{P} - C^P \qquad (2a)$$

$$S^G = J + T + \frac{EA^*}{P} - i\frac{B}{P} - i^*\frac{E}{P}(D^{*G}-R^*) - C^G \tag{2b}$$

Q is domestic income or product; J is the cash return on the public sector capital stock; i is the nominal interest rate on domestic-currency-denominated public debt, assumed to be held only by the domestic private sector (the Central Bank is included in the consolidated public sector identity (2b)). T is domestic taxes net of current domestic transfers and subsidies; C^P is private consumption and C^G public sector consumption. D^{*P} is private external dabt (including private sector arrearages and D^{*G} public external debt (including public sector arrearages). Note that

$$D^* = D^{*P} + D^{*G} \tag{3}$$

The trade balance surplus is the excess of the value of exports over the value of imports. Let X and M denote export and import volume respectively and P_X, P_M and P_N the domestic currency prices of exports, imports and non-traded goods.

$$TB = \frac{P_X}{P}X - \frac{P_M}{P}M \tag{4}$$

where

$$X = Q_X - (C_X^P + I_X^P + C_X^G + I_X^G) \tag{5a}$$

and

$$M = C_M^P + I_M^P + C_M^G + I_M^G - Q_M \tag{5b}$$

Also, ignoring imported raw materials and imported intermediate inputs

$$Q = (P_X Q_X + P_M Q_M + P_N Q_N) P^{-1} \qquad (6)$$

For simplicity, we approximate the GDP deflator, P, with a Cobb-Douglas weighted average of the prices of traded goods P_T and non-tradad goods P_N, where α is the share of non-tradad goods in GDP.

$$P = P_T^{1-\alpha} P_N^{\alpha} \qquad 0 \leq \alpha \leq 1 \qquad (7)$$

The traded goods GDP deflator is also approximated with a Cobb-Douglas weighted average of the prices of exports and imports where β is the share of importables production in the total production of tradad goods

$$P_T = P_X^{1-\beta} P_M^{\beta} \qquad 0 \leq \beta \leq 1 \qquad (8)$$

From (1a,b) and (2a,b) we obtain the familiar absorption idantitias in (9a,b), that the current account surplus is the excess of national income over domestic absorption and that the trade balance surplus equals the excess of domestic income over domestic absorption.

$$Q + \frac{EA^*}{P} - i^* \frac{E}{P} (D^* - R^*) - (C^P + I^P + C^G + I^G) = CA \qquad (9a)$$

$$Q - (C^P + I^P + C^G + I^G) = TB \qquad (9b)$$

From (1a) and (9a) wa see that an increase in the current account surplus requires an increase in the combined private and public sector financial surpluses or, aquivalantly, an increasa in national income relative to domestic (private plus public) absorption. This underlines the likelihood of a *fiscal dimension* to a current account improvement: most models of private consumption behaviour suggest that, holding constant taste, technology and external parameters, public revenue increases and/or

spending cuts will in general be necessary and sufficient to increase the sum of the public sector financial surplus and private saving. The main exceptions are those models of private consumption behaviour that exhibit debt neutrality such as representative agent models or overlapping generations models with operative intergenerational gift and bequest motives. Such models are extremely unlikely to describe accurately private consumption behaviour in developing and semi-industrial countries. Ignoring them in what follows, and assuming that public revenue increases or spending cuts do not boost private capital formation, fiscal retrenchment will reduce national absorption relative to national income.

Equation (9a) underlines the desirability of achieving a current account improvement via an increase in income rather than through a reduction in absorption. Three channels are potentially available for this: (1) increased domestic output, (2) increased foreign aid and (3) a reduction in foreign interest obligations, either by reducing the interest rate on the external debt or by writing down the debt.

A boost to domestic output, Q, can be achieved either by taking up any slack due to deficient aggregate demand or by fiscal or other measures aimed at boosting aggregate supply. Since output and absorption need not be behaviourally independent of each other, it is essential to adopt a general equilibrium approach when evaluating alternative policies to improve the current account. E.g. successful supply-side measures, by raising both current and permanent income, can be expected to stimulate private consumption. They may also induce a positive response of domestic private investment. The net effect on the current account need not be positive, absent further measures to restrain absorption.

Fiscal measures to stimulate output under conditions of Keynesian excess capacity will involve expansionary actions such as tax cuts, public

spending increases or expansionary monetary or credit policy measures that (subject to well known qualifications concerning the exchange rate regime and the degree of international capital mobility) are likely to worsen the current account.

Increased foreign aid will only improve the current account, given output, if some fraction of the aid inflow is not spent. If the increased aid relaxes a foreign exchange bottleneck and if the additional external resources are dedicated to the importation of essential foreign productive inputs, it can boost supply. To the extent that the increased volume of production does not generate a matching increase in private or public spending, this will improve the current account.

Exactly the same holds as regards the current account consequences of a reduction in external interest payments. The one-for-one improvement in the current account caused by interest rate or debt relief at given levels of output and absorption, will be augmented by any positive supply response in countries where production is foreign-exchange-constrained. It will be correspondingly diminished by any positive effect of debt relief on public or private spending.

Equation (9a) also emphasises that, even if a reduction in absorption is the current-account-improving policy of choice, there are still a number of ways of skinning that cat, each of which will have different short-run and long-run supply consequences and distributional implications. Absorption cuts can be aimed at public spending or at private spending and, within each of these categories, at consumption or at investment. Private spending can be cut by raising taxes or tariffs, by cutting subsidies or by raising the cost and/or availability of credit to the private sector. Taxing imported luxury consumer durables will have very different distributional implications from cutting subsidies on the staple foods

consumed mainly by the poor. The distributional consequences of changes in exhaustive public spending (education, health etc) may be as important as those of variations in transfer payments or taxes. They should be considered together with the allocative consequences and, in demand-constrained sectors of the economy, the Keynesian, cyclical output effects.

These distributional effects of absorption-reducing policy measures can be reinforced or offset by changes in the distribution of factor incomes (wages of different types of labour, rental incomes from the ownership of different types of land; profits accruing to the owners of different types of capital and rentier incomes). This is considered briefly below in Section 3.

The fiscal dimension of a current account improvement can only be understood properly by recognising that policies to influence the current account are *ipso facto* concerned with the nation's *intertemporal allocation of resources*. Intertemporal relative (shadow) prices such as the real interest rate, the rates of return on other assets and, in repressed financial systems with widespread credit rationing, both the cost and availability of credit will play a central role in the transmission mechanism between fiscal policy actions and current account outcomes. When e.g. the domestic financial markets are not perfectly integrated into with the global financial markets, bond-financed fiscal tightening will tend to result in lower domestic real interest rates or less severe credit rationing. Even when domestic asset returns are fixed by the rest of the world, the nation's solvency constraint and that of the public sector (discussed in Sections 4 and 5) imply that fiscal tightening today implies fiscal relaxation (relative to what otherwise would have been the case) in the future.

Equations (4) and (5a,b) bring out the *static relative price* and *resource reallocation* dimensions of a current account improvement. In the short run, given the foreign interest rate, the net stock of external debt and the aid flow, a current account improvement is the same thing as a trade balance improvement.[8] A trade balance improvement requires an increase in the production of tradeables and/or a reduction in the absorption of tradeables. This will in general require changes in the real exchange rate (the relative price of traded and non-traded goods) and, if the country in question has some international market power, in the terms of trade (the relative price of exports and imports).

Fiscal tightening (an increase in taxes or a cut in public sector absorption) will almost certainly reduce the demand for non-traded goods at the initial real exchange rate. Income tax or indirect tax increases will reduce private consumption, part of which will fall on non-traded goods. Higher taxes on profits and tighter private sector credit rationing will discourage private investment which often has a significant non-traded goods component. Public spending cuts are also likely to fall to a significant extent on non-traded goods. In a well-functioning economy with a flexible relative price of traded to non-traded goods and resource mobility between the traded and non-traded goods sectors, a fiscal contraction will reduce the relative price of non-traded goods and cause a movement of resources into the traded goods sector. This eliminates the incipient excess supply of non-traded goods at the old real exchange rate.

The non-traded goods market equilibrium condition, given in equation (10) permits one to summarise the proximate determinants of the real exchange rate in a convenient manner.

$$Q_N = C_N^P + I_N^P + C_N^G + I_N^G \qquad (10)$$

Given the economy-wide resource endowments and the degree of intersectoral resource mobility, Q_N is a decreasing function of the real exchange rate $\pi = P_T/P_N$ and Q_T an increasing function (see e.g. Dornbusch [1980]). The concave production possibility frontier is the curve AB in Figure 1.

Given aggregate real private consumption, private consumption of non-traded goods is an increasing function of the real exchange rate. In the Cobb-Douglas (constant expenditure shares) case this yields:

$$C_N^P = \bar{\alpha}\pi^{(1-\bar{\alpha})}C^P \qquad 0 < \bar{\alpha} < 1 \qquad (11)$$

The share of non-traded consumption in total consumption is denoted $\bar{\alpha}$.[9]

A current tax increase reduces aggregate consumption (barring debt neutrality). In Figure 1, this causes a movement of production from a point such as Ω_1 to a point such as Ω_2.[10] Absorption would move from a point such as $\tilde{\Omega}_1$ (with a trade balance deficit measured by the vertical distance $\tilde{\Omega}_1 - \Omega_1$) to a point such as $\tilde{\Omega}_2$ (with a trade balance surplus measured by the vertical distance $\Omega_2 - \tilde{\Omega}_1$). The relative price of non-traded goods (measured by the absolute values of the tangents to the production possibility frontier (T_1T_1 and T_2T_2) and the indifference curves ($\bar{F}_1\bar{F}_1$ and $\bar{F}_2\bar{F}_2$)) falls, i.e. π rises. The same qualitative effects follow from a cut in public spending on non-traded goods; even if this were tax-financed, the marginal private spending share on non-traded goods is less than 100 per cent.

Restrictions on factor mobility, but still unrestricted flexibility of factor prices and relative goods prices, would result in a production

possibility frontier such as A'B' that lies everywhere inside the "full mobility frontier" AB, except at the initial "status quo" position Ω_1.

Rigid relative prices or the emergence of Keynesian demand-constrained equilibria would show up as movements inside the production possibility frontier in response to a contraction of aggregate demand. E.g. in the small country case where traded goods output is never demand-constrained, one could get a production equilibrium at Ω_3 instead of at Ω_2 after a fiscal contraction: excess capacity and unemployment emerge in the non-traded good sector. Where the country has some market power in the markets for its tradeables, demand-deficient excess capacity and unemployment can emerge also in the traded goods sector following a fiscal contraction.

An issue requiring both more empirical and more analytical research concerns those characteristics of countries that render them more likely to experience "Keynesian" or demand-constrained excess capacity and unemployment when subjected to policies aimed at reducing absorption. The existence of a large modern or "formal" non-traded goods sector with production for the market rather than for subsistence or, in the traded goods sector, a downward-sloping, rather inelastic world demand schedule for exportables, seem necessary for the emergence of demand-constrained equilibria. So is the existence of nominal inertia or stickiness of money wages or output prices. The larger and more developed Southern Cone countries, and countries such as Korea and Taiwan therefore seem more likely to undergo episodes of Keynesian excess capacity when fiscal and/or monetary policy are tightened than the poorer and smaller developing countries with less extensive formal sectors. Even in the Latin American and East Asian NIC's, wage and price flexibility could reduce the likelihood and severity of demand-deficient recessions. Little is known of

the peculiarities of wage and price determination in developing countries, and of the extent to which the industrial country parables based on nominal or real wage rigidities need to be adapted to fit the institutions and experiences of about 100 very heterogeneous developing and new industrial countries.

Within the traded goods sector, changes in the composition of production and demand are likely in response to a fiscal contraction (see e.g. Buiter [1988b] for a recent theoretical analysis using an intertemporal model). Figure 2A shows an initial production equilibrium for importables and exportables at Ω_1 on the QQ locus. Domestic demand for exportables and import-competing good is at $\tilde{\Omega}_1$, with a trade balance deficit (measured in imports) of $B\tilde{\Omega}_1$. The fiscal contraction moves resources out of the non-traded goods sector into the traded goods sector. The production possibility frontier for exportables and importables moves to Q'Q'. In the small country case considered in Figure 2A, the terms of trade are unchanged. If the resources released by the non-traded goods sector don't favour either the exporting or import-competing sector, the new production point will be one like Ω_2 in Figure 2A: both export production and import-competing production will increase.

The fiscal contraction which started off the whole process will reduce the demand for imports as well as for exportable goods (barring very different income effects on the demand for exportables and imports). The new domestic demand point is at $\tilde{\Omega}_2$ with a trade balance surplus (measured in imports) of $\tilde{\Omega}_2B'$.

A country facing a downward-sloping export demand schedule would experience a worsening in its terms of trade as resources moved into the tradeables sector. Compared with the constant terms of trade case, the increase in the production of tradeables would favour import-competing

goods rather than the production of exportables. In Figure 2B the production point would move from Ω_1 to a point such as Ω_2 rather than Ω_2' which would have been chosen at constant terms of trade.[11] Domestic demand (not shown in Figure 2B) would be moved towards exportables and away from import-competing goods, compared to what would happen at constant terms of trade.

3. Breakdowns in the internal and external transfer processes

What can go wrong in the external-internal transfer process? First, it may be economically or politically impossible to effect the internal fiscal transfer. This means either that the government's fiscal instrumentarium is insufficient or that it is unwilling or unable to use it in the manner and to the extent required.

On the public expenditure side, there is little point in a government committing itself to a programme of spending cuts if any attempt to implement such cuts leads to the fall of the government and its replacement by a government unwilling to contemplate serious cuts. E.g. severe cuts in spending on the military raise the danger of a military coup. Cuts in food subsidies, in public sector civilian pay or employment or in Treasury subsidies to loss-making state enterprises, can lead to unrest, especially among the urbanised, unionised and better educated sections of society capable of undermining or toppling governments. Debtor country governments often play the "political constraints on public spending cuts" card quite skillfully in their negotiations with multilateral landing agencies, and foreign private and official creditors. While these constraints may be real, they are not independent of the past, present and anticipated future actions of the governments in question and the scope for strategic behaviour is considerable.

Raising current revenues is difficult in most developing countries, given their narrow tax base. For decades, widening the tax-base (through a more broadly-based income tax; through more effective enforcement of existing income tax rules; through a broadly-based sales tax; through expenditure taxes etc) has been a standard recommendation from anyone considering options for fiscal reform in developing countries, but relatively little has happened thus far. The recommendation is nevertheless repeated here.

Figures 3, 4 and 5 and Table 1 show how the overall tax burden and its composition differs across developing countries and between developing and industrial countries. The greater role of direct taxes on labour income (including social security taxes) in the industrial countries stands out as does the quite important role of taxes on international trade in the developing countries, especially the poorest ones and the more open ones.

Capital flight is another factor contributing to a narrow revenue base. While capital flight occurs partly in response to macroeconomic mismanagement (such as the maintenance of an overvalued exchange rate) part of it is likely to be motivated by a desire to evade taxes. The industrial countries that are the recipients of much of this flight capital could strengthen the fiscal position of many developing countries by reporting foreign investment income to the fiscal authorities of the developing countries or even by acting as their agents in collecting taxes that are due.

Through asset sales, including privatisation of publicly-owned industries, the government can achieve an apparent once-off improvement of its revenue. If these assets yielded a positive net cash flow to the government, the short-run improvement of its financial position will be reversed in the longer run. The asset sale is a financing item and like

public sector borrowing, belongs "below the line". There may of course be excellent reasons for wishing to privatise, including hoped-for positive incentive effects leading to efficiency and productivity gains in the privatised industries. Revenue considerations should, however, not play a role except to the extent that the government can sell the assets to the private sector at a price in excess of the present discounted value of future net cash flows under continued public ownership.

Even if the internal fiscal transfer is effected, the external transfer may not materialise because there is full financial crowding-out (or "crowding-in") or because resources do not flow into the right direction and relative prices do not adjust.

The financial crowding-out mechanism is likely to be quite different in a financially repressed, credit-rationed developing country from what it is in industrial country where interest rates and financial asset prices approximate the market-clearing paradigm more closely. With private spending constrained by the availability of rationed credit, the effect on the current account of an increase in taxes would, with a marginal propensity to spend of unity, not be offset (even in part) by a reduction in private saving. "Debt neutrality", the independence of private consumption and investment of the government's mix of borrowing and tax financing[12] would a-priori seem extremely unlikely in credit-rationed developing countries. The preliminary findings of Haque [1986] and of Haque and Montiel [1987] which do not reject the null-hypothesis of debt neutrality for a number of developing countries, are therefore very surprising. With debt neutrality, government deficit reductions brought about through tax increases would lead to an equal reduction in private saving, leaving the current account unchanged. Permanent cuts in "exhaustive" public spending also would merely result in an equal increase

in private consumption and no effect on the trade balance It seems extremely unlikely that developing countries or indeed industrial countries) exhibit debt neutrality, but more robust empirical evidence on the nature and degree of "financial crowding-out" on the demand side would be most useful.

Economists of the structuralist school for a long time have emphasised the possibility of "supply-side" financial crowding-out and this possibility has also been recognised more recently in "mainstream" macroeconomics (see e.g. *Blinder [1987]*). The simplest version of this involves an "Austrian" production model with lags between the application of inputs and the emergence of saleable output. Such lags create a need for working capital to finance the process of production; the cost and availability of this working capital can affect (or even constrain) supply. Reductions in public sector borrowing permitted by lower public sector deficits brought about through spending cuts can therefore boost supply even in the short run. The effect of this supply-side stimulus on the current account will depend on the extent to which it induces an increase in private absorption. (What's good news for the economy need not be good news for the current account).

The resource reallocation from the non-traded goods sector into the traded goods sector may not take place to the required extent, or at all. Where intersectoral resource immobility reflects real economic rigidities (skill mismatch, spatially separated labour markets etc) without serious externalities there is no prima-facie cause for policy intervention on efficiency grounds. Where inefficient laws, rules and regulations in labour markets, housing markets and credit markets unnecessarily restrict the mobility of labour and other resources, the usual "first-best" policy prescriptions apply: eliminate the sources of the inefficiency.

The implications of fiscal adjustment for factor prices and the distribution of "primary" incomes) depends both on the degree of intersectoral factor mobility and on the factor intensities of production in the different sectors. Owners of factors "specific to" the contracting sectors (typically the non-traded good sector in the case of a fiscal contraction) will suffer a loss of rents to these fixed factors. Even where and when factors are mobile and priced competitively, the owners of factors used relatively intensively in the contracting sectors will suffer a fall in real income. If these potential losers are well organised or easily mobilised and if they cannot be bought off with an acceptable compensation scheme, they may be able to block the policy changes and prevent the necessary adjustment.

Even if compensation of losers is feasible, it is likely to be distortionary and the efficiency losses involved in the side-payments mechanisms should be taken into account in a comprehensive cost-benefit analysis.

Rent-seeking behaviour may become especially intense when the status-quo is threatened; the real resource cost of DUPE activities will have to be added to the cost of failing to implement the fiscal program, if the activities are successful.

Often (but not always) the signal that both indicates the need for resource movements and motivates them, is a change in relative prices. The adjustment process following a fiscal contraction can be frustrated by the failure to achieve a sufficiently large depreciation of the real exchange race, i.e. a decline in the relative price of non-traded goods. This is not too surprising once one realises that a depreciation of the real exchange rate tends to be associated with a reduction in real consumption wages.[13]

Rigid real wages in excess of market clearing values are often maintained in the formal sector through a combination of union pressure, public sector employment and pay rules and a high degree of index-linking of money wages to the cost of living. Achieving a real depreciation in such a setting means rather more than implementing a nominal "maxi-davaluation" and validating this through appropriate supporting fiscal policies (see e.g. Khan and Lizondo [1987] and van Wijnbergen [1986]). It means achieving a change in the balance of power in the labour market by weakening organised labour and strengthening employers, private and public, through legislation and other measures. Having altered the fundamental determinants of industrial bargaining (and lobbying) power (a process likely to involve significant political and social conflict), a nominal maxi-devaluation may of course well be helpful in achieving any target real devaluation at least cost. For a nominal devaluation to be superior to a nominal wage and price reduction, some form of nominal inertia in wage or price determination must be present, or the asset revaluations associated with nominal maxi-devaluations must be less disruptive (or contractionary) than those associated with reductions in domestic nominal costs and prices. The rigidities stressed in most discussions of developing countries' labour markets are, however, real, not nominal rigidities. Nominal inertia (both in the level and rate of change of money wages and prices) may however result from lags in the indexation process, staggered, overlapping wage contracts and slow adjustment in inflationary expectations. Possible short-run contractionary effects of maxi-devaluations have been stressed by many experts (see e.g. Diaz-Alejandro [1965], Krugman and Taylor [1978], van Wijnbergen [1986], Edwards [1986]). Even as a facilitating instrument in a real exchange rate

adjustment that is warranted by the fundamentals, nominal maxi-devaluations don't appear to be an automatic policy choice.

Note that "once-off" maxi-devaluations are quite distinct from choosing a higher rate of crawl in a crawling peg exchange rate regime. If the government's fiscal and financial policy choices imply a permanently higher rate of monetary growth and (eventually) a permanently higher rate of inflation, a higher rate of depreciation of the nominal exchange rate is implied, eventually. Different rates of (anticipated) inflation imply different amounts of "seigniorage" or (anticipated) inflation tax extraction. The fiscal aspects of the inflation tax are considered in Section 6 below.

Incomes policy, i.e. direct wage (and possibly price) controls too will not be helpful in achieving a lasting real depreciation unless it changes the underlying balance of power in the labour market. It may, of course, still be helpful in facilitating the transition from a high rate of inflation (or even a hyper-inflation) to a lower rate of inflation a least cost in terms of output and employment foregone, by breaking the vicious "after-you" equilibrium of oligopolistic wage and price determination and, perhaps, by adding to the credibility of the accompanying fiscal-monetary-exchange rate policy package. Both incomes policy and nominal exchange rate policy can be used to "signal" government intentions and to "break" a non-cooperative wage and price setting equilibrium by acting as a co-ordinating device for oligopolistic unions and firms.

Finally, even if the right fiscal correction is undertaken, *and* the private financial surplus does not decline one for one with the public sector financial deficit, *and* the real exchange rate depreciates *and* resources flow out of the non-traded into the traded goods sector, the resulting improvement in the trade balance may have the wrong composition

as regards increases in exports versus reductions in imports. Without detailed information on the productive technologies, economy-wide factor supplies, intersectoral factor mobility, global and domestic demands, it is impossible to determine whether the resources flowing into the traded goods sectors should be allocated to the production of exportables or of import-competing goods. The 1987 WDR suggested that, as an empirical matter, many developing countries had contravened their true international comparative advantage by favouring import competition over export promotion through overvalued exchange rates, tariffs, non-tariff barriers to trade, selective use of subsidies and credit rationing etc. Even where this is true, the magnitude of the corrective policy response that is required is by no means obvious. The identification and pursuit of comparative advantage in a highly distorted economy is very difficult, not only politically, but also as a narrowly technical or conceptual issue.

4. The solvency of a nation

In this Section the solvency of a national economy is studied not because solvency is necessarily (or even frequently) a binding constraint on external borrowing strategies, but because the "forward-looking" accounting framework involved in solvency assessments can be used to evaluate the internal consistency of any set of plans for external borrowing, debt service, exports, imports and other current external transactions.

Time-consistent external debt strategies, i.e. plans for external borrowing and repayment which are at each instant in the perceived self-interest of the sovereign borrowers and the creditors (absent "third party" enforcement" of the laws of contract (including the laws of bankruptcy)), may well lie strictly in the interior of what would be the

feasible set in the presence of credible, binding commitments by debtors and creditors. Even such (socially sub-optimal) time-consistent plans must, however, be feasible or internally consistent. This Section and the next focus almost exclusively on the narrow issue that current and future plans should "add up". For the analysis of the positive and normative issues of sovereign borrowing, ability and willingness to pay see e.g. Eaton and Gersovitz [1981 (a,b), 1983], Eaton, Gersovitz and Stiglitz [1986] and Kletzer [1984].

Consider the current account identity in equation (1b). Let $F^* = R^*-D^*$ be the nation's stock of net foreign assets, $f^* = EF^*/PQ$ the stock of net foreign assets as a fraction of GDP, $tb = TB/Q$ the trade balance surplus as a fraction of GDP and $a^* = EA^*/PQ$ foreign aid and other current transfers from abroad as a proportion of GDP. Let n be the proportional growth rate of real GDP, π the domestic rate of GDP inflation, π^* the world rate of GDP inflation, ϵ the proportional rate of depreciation of the nominal exchange rate, γ the proportional rate of depreciation of the real exchange rate (defined here as the ratio of the foreign GDP deflator times the nominal exchange rate to the domestic GDP deflator) and r^* the foreign real interest rate.[14] It follows that

$$\gamma = \epsilon + \pi^* - \pi$$

and

$$r^* = i^* - \pi^*$$

Using these notational conventions, equation (1b) can be rewritten as:

$$\Delta f^* = tb + a^* + (r^*+\gamma-n)f^* \qquad (12)$$

Note that a depreciating real exchange rate ($\gamma > 0$) raises the domestic real resource cost of any given foreign real interest rate. The "asset-revaluations-and-real-growth-corrected" current acount identity in (12) implies the intertemporal national budget constraint, present value national budget constraint or national solvency constraint given in (13). $PV(s;tb+a^*;r^*+\gamma-n)$ denotes the present discounted value, at time s, of the entire planned or expected future stream of trade balance surpluses plus net foreign current transfers (as fractions of GDP) $tb + a^*$, where the discount rate is the real-exchange-rate-depreciation-corrected foreign real interest rate $(r^*+\gamma)$ minus the growth rate of real GDP, n.

$$-f^*(s) = PV(s;tb+a^*;r^*+\gamma-n) \tag{13}$$

Equation (13) means that the present discounted value of future trade balance surpluses plus net inflows of foreign aid and remittances (as a proportion of GDP) is just equal to the nation's current net external debt (as a proportion of GDP).[15,16] The sum of the trade balance surplus and the net current transfers will be referred to henceforth as the nation's *primary surplus*.

The nation's primary surplus is occasionally called the nation's net resource transfer. In principle names don't matter, although poorly chosen names can sometimes confuse the unwary. The primary surplus is the excess of *domestic* income over national absorption. The current account surplus is the excess of *national* income over national absorption.

The primary surplus measures the nation's net resource transfer to the rest of the world when domestic income is taken as the "benchmark" or "origin" relative to which transfers are measured. The current account surplus measures the nation's net resource transfer to the rest of the world if national income is taken as the benchmark or origin. The first

transfer concept emphasises the *location* of resources and the income streams they yield within the nation's boundaries. The second concept focuses on the *ownership* of resources and the associated income streams by national residents, irrespective of the location of the resources.

An emphasis on the "territorial" definition over the "ownership" definition (or vice-versa) is sometimes adopted by those with strong views on the (il)legitimacy or priority of foreign ownership claims on national resources (directly or through the tax system). It is (fortunately) not necessary for what follows to get sidetracked any further into these semantic discussions.

Equation (13) follows from the asset-revaluations and real-growth-corrected current account identity (12) only if the following rather technical-sounding condition holds: The present discounted value of the nation's net external debt in the very distant (strictly speaking infinitely far) future is zero.[17] What this means is that, ultimately, the external debt/GDP ratio has to grow at a rate less than $r^* + \gamma - n$ or, equivalently, that ultimately, the real external debt has to grow at a rate less than $r^* + \gamma$, or again that, ultimately, the foreign currency value of the external debt should grow at a rate below i^*. Ultimately, therefore, the country will have to run primary surpluses in order to service (pay the interest on) its debt. Solvency does not require that the debt be repaid, only that it is not possible indefinitely to finance the interest bill through further borrowing: at some stage primary surpluses must be achieved and any further borrowing will not be sufficient to pay the entire existing interest bill. The nation cannot play a successful Ponzi game.

A debtor country (with $f^*<0$) facing a real interest rate on its debt in excess of the real growth rate need, in principle, never achieve any *current account surpluses* in order to pursue a strategy consistent with

solvency;[18] it must be capable of generating, at some point, primary surpluses. A rising debt-GDP ratio is not by itself evidence of imminent or ultimate insolvency; only a debt GDP ratio scheduled to rise indefinitely at a rate in excess of $r^* + \gamma - n$ would spell eventual default or repudiation.

Given the existing debt, the primary surpluses projected for the future and the projected future interest rates, expressions such as (13), [or (13') or (13") in footnote 16] can be used to assess the consistency of the external debt strategy. If, under current policy projections, equation (13) is violated (specifically if the left-hand side exceeds the right-hand-side) this doesn't mean that default is inevitable, only that the strategy under consideration won't work. What will "give" to achieve equality in (13) is what the debate during the current debt crisis is all about. The lenders would like to see larger trade balance surpluses by the borrowers (larger tb values in equation (13) and indeed current account surpluses to reduce the creditors' exposure in the debtor countries). The borrowers would like to see some combination of more aid (larger a^*), lower interest rates (lower r^*), better terms of trade (negative γ), higher growth (larger n) or a write-down or write-off of (part of) the debt (a smaller value of $-f^*$).

Capital flight introduces an important further dimension to equations (12) and (13). Net foreign assets, F^* consist of official foreign exchange reserves R^* and, in many developing countries, of a large amount of private foreign claims or assets $-D^{*P}$ against which is set a large amount of public or publicly guaranteed debt, D^{*G}. The income from the private overseas asset holdings often either stays abroad or, if repatriated, manages to escape the domestic fiscal authorities. New private capital outflows similarly are often beyond the control of the domestic authorities. Much

of the debt crisis debate then effectively focuses on the left-hand-side of the rearranged balance of payments equation (14)

$$\Delta D^{*G} = \Delta R^{*} - \left[\frac{PTB}{E} + A^{*}\right] + i^{*}(D^{*G}-R^{*}) + \left\{i^{*}D^{*P}-\Delta D^{*P}\right\} \qquad (14)$$

The lenders are concerned with the developing country's debts (D^{*G}), not with its unattachable assets. Income from these assets tends to stay abroad ($i^{*}D^{*P}$, which is negative, automatically "disappears" into $-\Delta D^{*P}$). Even the building up of reserves by the monetary authorities is often viewed with suspicion, as being "at the expense of" debt service or, worse, in anticipation of a post-repudiation cash-in-advance international trading regime for the country.

Other critics have pointed out causal links between ΔD^{*G} and ΔD^{*P}, with new foreign lending to the public sector of highly indebted developing countries disappearing virtually instantaneously as private capital flight, and at times returning to the lending banks by return of electronic mail.

In the limit, capital flight and the associated tax evasion mean that, effectively, the nation's private external assets cease to be part of its true economic base and certainly of its public sector revenue base, leaving only the public external liabilities. This threatens the solvency of potentially viable nations. That the problem is serious can be inferred from Table 2 which reproduces some estimates by Cumby and Levich [1987] of the extent of flight capital for a number of countries.

5. The solvency of the public sector

The discussion of "national solvancy" in the previous section should not lead one to think of any country, developing or industrial, as being wall characterised by a single representative, national agent, i.e. a

behaviourally consolidated private-cum-public sector with full command over all national resources. As the external transfer in most developing countries is mediated through the public sector, separate consideration of the financial accounts, solvency constraint, spending programme and revenue basis of the public sector is in order.[19]

Equation (15) gives the budget identity of the consolidated public sector, i.e. general government, central bank and state enterprises.

$$\frac{\Delta H}{P} + \frac{\Delta B}{P} + \frac{E}{P}(\Delta D^{*G} - \Delta R^{*}) = C^{G} + I^{G} - \frac{EA^{*}}{P} - T - J + \frac{iB}{P} + i^{*}\frac{E}{P}(D^{*G} - R^{*}) \quad (15)$$

H is the nominal stock of high-powered money or reserve money, i.e. the monetary base. It consists of coin and currency held by the public and reserves held by the commercial banking system and bears a zero nominal interest rate. Gross public sector capital formation I^{G}, the public sector capital stock K^{G} and the depreciation rate of the public sector capital stock δ are related by

$$\Delta K^{G} = I^{G} - \delta K^{G}.$$

$F^{*G} = R^{*} - D^{*G}$ is the government's net stock of foreign assets. The government's gross return from the public sector capital stock, J, can be written as the product of the capital stock K^{G} and its gross rate of return η, i.e.

$$J = \eta K^{G}.$$

We also define the following ratios to GDP:

$$h = H/PQ;\ k^{G} = K^{G}/Q;\ b = \frac{B}{PQ};\ c^{G} = \frac{C^{G}}{Q};\ i^{G} = \frac{I^{G}}{Q};\ \tau = \frac{T}{Q};\ f^{*G} = \frac{EF^{*G}}{PQ};$$

$$d^{*G} = \frac{ED^{*G}}{PQ} \text{ and } \rho^* = \frac{ER^*}{PQ} .$$

The government budget identity (15) can then be rewritten as:

$$\begin{aligned}\Delta b - \Delta f^{*G} - \Delta k^G = {} & c^G - (a^*+\tau) \\ & + (r^*-n)(b-f^{*G}-k^G) \\ & + (r-r^*)b - \gamma f^{*G} + (r^*-(\eta-\delta))k^G \\ & - [\Delta h+(n+\pi)h]\end{aligned}$$

Let D denote the net non-monetary liabilities of the government, and d their ratio to GDP, i.e

$$D = \frac{B}{P} - \frac{EF^{*G}}{P} - K^G$$

and

$$d = \frac{D}{Q} .$$

The budget identity can then be written more compactly as in (16)

$$\Delta d = c^G - (a^*+\tau) + (r^*+\gamma-n)d + \ell - \sigma \tag{16}$$

where

$$\ell = (r-(r^*+\gamma))b + (r^*+\gamma-(\eta-\delta))k^G \tag{17a}$$

and

$$\sigma = \Delta h + (n+\pi)h \tag{17b}$$

The increase in the public sector's net debt-GDP ratio can, from equation (16), be expressed as the sum of four components. The first is $c^G-(a^*+\tau)$, the basic public sector primary (non-interest current or consumption account) deficit as a proportion of GDP. The second, $(r^*+\gamma-n)d$, is the real interest payments on the debt corrected for the growth of real GDP, as a proportion of GDP. The real interest rate imputed to the debt is the world real interest rate $r^* = i^* - \pi^*$ plus the proportional rate of depreciation of the real exchange rate γ. The third, ℓ consists of the additional interest losses (which may of course be negative) accruing on the various assets and liabilities due to the fact that the real rate of return on these assets and liabilities differs from the world real interest rate corrected for real exchange rate changes. If domestic debt pays a real interest rate in terms of home goods (r) in excess of the world real interest rate corrected for real exchange rate depreciation $(r^*+\gamma)$ then ℓ increases by an amount $(r-(r^*+\gamma))b$ If the foreign real interest rate corrected for real exchange rate depreciation exceeds the net real rate of return on public sector capital, $\eta - \delta$, ℓ increases by an amount $(r^*+\gamma-(\eta-\delta))k^G$. Finally, the increase in the debt-GDP ratio will be smaller, the larger σ, real *seigniorage* or the real value of the increase in the nominal high-powered money stock (as a proportion of GDP).

From (16) and (17a, 17b) a few obvious facts stand out.

<u>Substituting domestic debt for foreign debt.</u>

The substitution of domestic debt, b, for foreign debt $(-f^{*G})$, will worsen the budgetary position of the government if the domestic real interest rate exceeds the foreign real interest rate corrected for real exchange rate depreciation. Both Turkey and Brazil have in recent years

pursued such a strategy, which may not have been very sensible (see Anand and van Wijnbergen [1987]).

If the substitution of domestic government debt for foreign public debt takes the form of a "stock-shift" open-market swap, the nation's total net foreign indebtedness at that instant will not of course have been affected. Private external indebtedness must have increased by the same amount as the reduction in foreign indebtedness. The government's balance sheet will have been weakened while that of the private sector has become stronger. This creates a problem if and to the extent that the government has trouble effecting the increased internal fiscal transfer required to service its costlier debt.

If the substitution of more expensive domestic public debt for foreign public debt takes the form of the government financing a larger share of its flow deficit by borrowing domestically, there will be, as time passes, first-order effects on the evolution of the nation's net external indebtedness, (1) through the higher future public sector deficits that would result because $r > r^* + \gamma$ (even if seigniorage, the primary deficit and the rest of ℓ are unchanged); and (2) through any effects of the change in the internal-external financing mix on private saving and investment. If the private sector cannot borrow abroad (or cannot increase its borrowing abroad), the increased government borrowing in the domestic capital markets will crowd out private investment, either by pushing up domestic real interest rates or by tighter credit rationing. The response of private saving is less clear-cut, but under the conditions just stated, the private sector financial surplus will have to increase by the full amount of the switch of government borrowing from the external to the internal financial markets. When private access to the international financial markets is limited but non-zero, the short-run response of the

current account is still likely to be an improvement, although it again is likely to have been purchased at a cost in terms of domestic investment. Over time, the government would also encounter the more acute internal fiscal transfer problems discussed before.

The debt burden and the real exchange rate.

As was discussed in connection with national solvency in Section 4, a depreciating real exchange rate ($\gamma > 0$) increases the real domestic resource cost of servicing foreign debt (at any given world real interest rate r^*). This confronts debtor countries with the unpleasant dilemma that they must achieve an improved level of competitiveness in order to generate the trade surpluses to required service their debt, while the very process of improving their competitiveness increases the real burden of that debt.

The return on the public sector capital stock.

The implications of differant rates of return on the public sector capital stock[20] can be brought out most easily by considering two extremes. The first, optimistic, scenario has the net rate of return, $\eta - \delta$, equal to tha opportunity cost of government borrowing, $r^* + \gamma$. If in addition $r = r^* - \gamma$, the primary deficit driving the debt dynamics in this case is simply the current or consumption account deficit, $c^G - (a^*+\tau)$.

The second, pessimistic (or realistic?), scenario has the gross rate of return η equal to zero. Capital effectively ceases to be an asset and gross investment ($i^G = \Delta k^G + (\delta+n)k^G$) is like public consumption expenditure. Let net public debt excluding capital as a proportion of GDP be $\tilde{d} = (B-EF^{G*})/PQ$. If in addition we have $r = r^* + \gamma$, the budget identity becomes

$$\Delta\tilde{d} = c^G + i^G - (a^*+\tau) + (r^*+\gamma-n)\tilde{d} - \sigma. \qquad (18)$$

The primary deficit driving the debt dynamics now includes gross public sector capital formation. With $\eta < 0$ the true primary deficit, $c^G - (a^* + \tau) + \ell$ would be even larger.

The solvency constraint of the public sector

From equation (16) we can obtain the intertemporal budget constraint, present value budget constraint or solvency constraint of the public sector in the same way as was done for the nation as a whole in Section 4. It is given in equation (19)

$$d(s) = PV(s; r + a^* - \ell - c^G; r^* + \gamma - n) + PV(s; \sigma; r^* + \gamma - n) \qquad (19)$$

The present discounted value of future primary government surpluses (including ℓ, the drain on public sector revenues caused by costly domestic debt and low-yielding public sector capital) plus the present value of future resources appropriated by printing money should be equal to the outstanding net public debt.[21]

As in Section 4, the solvency constraint (19) should be viewed as an ex-ante consistency check on the government's spending, revenue raising and monetisation plans, given its initial outstanding debt.

When spending and revenue projections are made and evaluated, it is important to be aware of the spending and revenue implications of various structural adjustment policies.

Trade liberalisation, when it takes the form of reducing tariffs or export taxes and when the revenue base is less than unit elastic with respect to tax and tariff rates, will reduce revenues and weaken solvency unless future primary deficits are reduced or future seigniorage revenues are boosted. If neither occurs, the debt will not be serviced in full and we'll see either explicit (partial) repudiation or capital levies etc. This is not necessarily a bad thing, although it is likely to affect

adversely the government's future ability to borrow. The case for a more explicitly contingent public debt (internal and external) has been made forcefully among others by R. Dornbusch (1986 pp.131-150 and pp 175-176). Provided the contingencies are clearly defined and observable and not under the control of the borrowing government, the case for making debt holders share (with labour and the owners of capital) in the burden of adjusting to internal and external exogenous shocks would seem to be a strong one.

Replacing quotas and import licenses (which typically are not auctioned off competitively) by uniform tariffs, as is currently being recommended by the World Bank, will raise government revenue in addition to having allocative or efficiency effects and may reduce the returns to rent-seeking activity.

The consequences of internal and external financial liberalisation for the government's ability to extract seigniorage will be considered in Section 6.

6. Seigniorage as a tax

Seigniorage, σ, the increase in the nominal high-powered money stock (as a proportion of GDP) can be written in a number of ways as shown in equation (20). $\mu = \Delta H/H$ is the proportional rate of growth of the nominal high-powered money stock and $V = PQ/H$ is the income velocity of circulation of high-powered money.

$$\sigma = \frac{\Delta H}{PQ} \tag{20}$$

$$= \Delta h + (n+\epsilon)h$$

$$= \mu V^{-1} = \mu h$$

As can be seen from the second line of (20), total seigniorage can be broken down into 2 components, the reduction in the high-powered money - GDP ratio that would occur as a result of nominal GDP growth, holding constant the nominal stock of high-powered money ($(n+\pi)h$) and the change in the high-powered money-GDP ratio ($\Delta h = -\Delta V/V^2$). If money demand equals money supply, $(n+\pi)h$ can be interpreted as the growth in nominal money demand due to inflation and real GDP growth at a given velocity. Δh is the increase in real money demand due to declining velocity. The two components will often move in opposita directions. Higher *actual* inflation will *cet.par.* increase $(n+\pi)h$. Directly and via higher nominal interest rates, higher *expected* inflation will also tend to increase velocity (reduce money demand at any given level of income). The third line of (20) provides a decomposition of seigniorage (or the inflation tax) into an *inflation tax rate*, $\mu = \Delta H/H$ and an *inflation tax base*, $h = V^{-1}$. A higher inflation tax rate will, given the tax base, raise seigniorage revenue. To the extent that a higher value of μ raises the expected rate of inflation (and for increases in μ that are perceived as permanent, it will do so sooner or later), it will also raise velocity and reduce the tax base. Only if the elasticity of velocity with respect to μ is less than unity, will seigniorage revenue go up as μ increases.

Consider the monetary base demand function given in equation (21)

$$h = f(i,Q;\varphi) \qquad f_i < 0 \qquad (21)$$

φ is a set of variables such as expected inflation, expected nominal exchange rate depreciation, foreign interest rates, official bank reserve requirements, capital controls etc. that may influence the demand for base money in addition to i and Q.

f_Q will be positive (negative) if the elasticity of real money base demand with respect to real income is greater than (less than) unity. For the moment, assume a unitary income elasticity and a real interest rate that is independent of the rate of inflation. In the long run, $\tau = \mu - n$. For a number of commonly used money demand functions such as the linear one in (22a) and the log-linear one in (22b) the long-run relationship between monetary growth and real seigniorage has the "Laffer curve" shape shown in Figure 6.[22]

$$h = a - bi \qquad a, b, > 0; \quad i < ab^{-1} \qquad (22a)$$

$$\ln h = a' - b' i \qquad b' > 0 \qquad (22b)$$

For the linear demand function, shown in Figures 6A, 6B, and for the log-linear demand function, shown in Figures 6C, 6D, there is a unique, finite, long-run seigniorage maximising rate of inflation (a/2b in the linear case, 1/b' in the log-linear case). No rational policy-making process would drive the long-run inflation rate beyond this point as in addition to the costs of higher inflation, there would be a reduction in inflation tax revenues. Many past and recent hyper-inflationary or near-hyper-inflationary episodes nevertheless saw the rate of inflation pushed well beyond the point of negative seigniorage returns. The political economy of such monetary irrationality is not very well understood.

The importance of seigniorage as a source of government revenue varies widely across countries at a point in time and over time for any given country. Only the cross-sectional variation is shown in Table 3. Note that all these data understate seigniorage revenue, as they only refer to currency outside banks. Currency held by the banks as "till money" and

reserves held either as cash or in the form of bankers' balances with the Central Bank are omitted because the data tend to be very unreliable.

The seigniorage tax base can be affected powerfully by direct international currency substitution ("dollarisation") and by domestic financial developments and reforms. Domestic financial deregulation and the development of deposit-taking institutions paying attractive interest rates will shrink the demand for currency held outside the banking system (Cur). With a given reserve requirement (θ) against deposits (Dep) (assumed binding), the reserve component of the monetary base (Res) will grow when bank deposits grow, as

$$Res = \theta Dep.$$

Since H = Cur + Res, even the *sign* of the net effect of domestic financial deregulation and the growth of bank deposits on the seigniorage tax base is an empirical matter. Flight out of domestic currency and out of domestic bank deposits into foreign currency and/or foreign bank deposits in response to international interest differentials and/or expectations of exchange rate depreciation will unambiguously shrink the seigniorage tax base. More quantitative information on the demand for high-powered money as a function of expected inflation, domestic and foreign interest rates, expected exchange rate depreciation, the development and degree of sophistication of the banking system and the tightness and effectiveness of exchange controls would be very helpful.

In an economy in which all sources of government revenue are distortionary, optimal policy will minimise the unavoidable dead-weight losses involved in raising a given total revenue by using all available revenue instruments, including the inflation tax. More reliable knowledge

concerning the effect of changes in the inflation tax rate on the inflation tax yield is required if this instrument is to be used properly.

Seigniorage as defined here can be viewed as the *expected* inflation tax. If the government has a significant amount of long-dated nominally denominated (non-index-linked) debt outstanding, it can in addition use unanticipated inflation as a capital levy on the holders of this debt. Since the external debt is denominated in foreign currency and much of the domestic debt is effectively index-linked, this may not be as important a source of revenue as it could be in many of the industrial countries. In addition, this policy suffers from the defect that repeated use will lead to inflation risk premiums being built into the nominal yields on newly issued nominal debt.

Finally, inflation will affect the real yield of other taxes and revenue sources (specific duties, charges, tariffs etc.) and the real value of public spending because many spending programmes, tax schedules etc. are not index-linked and adjust to inflation only with a lag.

The biases do not always go in the same direction. Inflation will raise the real yield of a progressive income tax when the progressive rate schedule is not index-linked and adjusted to inflation only with a lag. Delays in the collection of taxes can, unless the right interest penalty for arrearages is imposed, reduce the real tax take significantly in an inflationary environment. Again our quantitative knowledge of the effect of inflation on real public spending and revenues is very incomplete, although Tanzi's [1978] work suggests that very high rates of inflation unambiguously and significantly reduce real public sector revenues.

What is clear is that the pursuit of reductions in the rate of inflation in the range where this reduces seigniorage may have serious fiscal consequences. If no matching reduction in the primary government

deficit is achieved, the growth of interest-bearing public debt (internal or external) will be increased. If taxes are raised or spending cut to prevent an increase in the growth of the public debt, the demand-depressing effect of the monetary tightening will be augmented by a contractionary fiscal impulse and a serious recession may result. While this may be judged to be a price worth paying for a reduction in the inflation rate, the choice should be made in full awareness of the entire range of likely consequences.

7. The consistency of inflation targets and financeable deficits

Recently the World Bank has developed a "short-hand consistency check" on certain aspects of a government's fiscal, financial and monetary strategy. This approach, based on the work of Anand and van Wijnbergen [1987], Knight [1986] and Coutinho [1986, 1988] within the Bank and closely related to some recent work of mine (Buiter [1983a,b] [1985], [1987a,b]) can be interpreted readily using the accounting framework of Sections 6 and 7.

Let z denote the real-growth-corrected operational deficit as a proportion of GDP, i.e. the sum of the primary deficit and the asset-revaluations-and-real- growth-corrected interest paid on the debt, as a proportion of GDP:

$$z \equiv c^G + i^G - (a^*+\tau) + \ell + (r^*+\gamma-n)(b+d^{*G}-\rho^*) \tag{23}$$

The public sector budget identity given e.g. in equation (18) can be rewritten as

$$\sigma \equiv z - (\Delta b+\Delta d^{*G}-\Delta\rho^*) \tag{24}$$

This identity can be used in a number of ways. One is to treat monetary financing, σ, as the residual.

To implament this, projections are provided for z, i.e. for the primary daficit and the interest payments on the outstanding stocks of internal and external public debt. This requires projections of *real* intarast rates, i.e. of domestic and foreign nominal interest rates, of domastic and foreign inflation rates and of changes in the real (or nominal) exchange rate. The "financeable deficit" is then calculated, basically the desired (or permitted) changes in domastic indebtedness, Δb, external indebtedness, Δd^{*G}, minus any desired increase in external foreign exchange reserves, $\Delta \rho^{*}$. This uniquely determines σ, the value of the real resources (as a percentage of GDP) that the government will have to appropriate by running the printing presses.

With the required amount of seigniorage from equation (24), plus a set of equations relating base money to inflation, (typically centred around a high-powered money demand function) the inflation rate implied by the fiscal-financial programme on the right-hand-side of equation (24) can be determined. A popular candidate used in World Bank analyses is the long-linear base money demand function (in the example considered here, the income elasticity of money demand is constrained to equal unity). The inflation rate is the only other argument in this function. $\hat{h}$ in equation (25) denotes the desired or long-run demand for base money as a fraction of GDP.

$$\hat{h} = e^{(\alpha' - \beta' \pi)} \qquad \beta' > 0 \qquad (25)$$

The actual inflation rate π is assumed to exceed (fall short of) the expected, inertial or 'core' inflation rate $\hat{\pi}$ whenever h exceeds $\hat{h}$. This

relationship can be perturbed by additive exogenous shocks x.

$$\pi = \epsilon(h-\hat{h}) + \hat{\pi} + x \qquad \epsilon>0 \qquad (26)$$

Finally, inertial inflation $\hat{\pi}$ is assumed to be a simple function of past inflation, say,

$$\hat{\pi} = \lambda\pi(-1) \qquad 0<\lambda\leq 1 \qquad (27)$$

Given σ from equation (24) and equations (25), (26) and (27), we can calculate the inflation rate consistent with the deficit scenario and the assumptions about the financeable deficit. This implied or consistent rate of inflation can then be compared with the target rate of inflation (and with the inflation assumptions that are implicit in the projections made to obtain the right-hand-side of equation (24).

The converse approach is to start with a target path for inflation and to deriva the path it implies for seigniorage σ given equations (25), (26) and (27). Given the amounts that can be borrowed at home and abroad and given the target change in international reserves, this implies a path for the operational deficit. This can then be compared with the actual plan for the operational deficit.

Any inconsistencies (in practice most likely to take the form of an implied inflation rate in excess of the target rate or an implied deficit in excess of the target one) will have to be reconciled by some combination of ravisions in inflation projections, cuts in the primary deficit, reductions in the internal or external interest burden, increased internal or external borrowing (including arrearages) or lower foreign exchange reserves.

Note that from the public sector solvency constraint given in equation (19), given the initial net debt and the projected path of future

(corrected) primary deficits and of future real interest rates and growth rates, the present discounted value of future seigniorage required to make these projections consistent with government solvency can be calculated. This PDV can of course be achieved with many different time paths for σ. The approach outlined in this section picks among these many feasible time paths for σ by specifying paths for $\Delta b + \Delta d^{*G} - \Delta\rho^{*}$ (i.e. for the financeable deficit).

I consider this approach (basically a simple "uses and sources of funds" accounting exercise for the consolidated public sector with minimal behavioural fill-in (just the base money demand function and the inflation equations)), to be potentially useful because it imposes the essential discipline of looking at the totality of plans for public sector outlays, receipts and financing. Such an integrated approach is the only one that makes sence. Granted this 'global' approval of the method, I have some worries about misleading inferences that might be drawn from its *prima-facie* low behavioural content. There also are, inevitably, serious problems with any actual empirical implementation.

Nothing from nothing

The approach carries with it the danger that a casual reader or careless user might infer that in order to engage in macroeconomic policy evaluation all one needs is a base money demand function and an inflation equation. (If prices were perfectly flexible, one could even dispense with the separate inflation equation). In fact, in order to do the exercise, a vast amount of (implicit) economic and econometric modelling is required to produce projections for the right-hand-side of equation (24). There we find a number of key *endogenous* variables whose determination requires (implicitly or explicitly) the kind of general equilibrium macroeconometric modelling that the consistency check appears to short-cut.

Among these key endogenous variables are the domestic real interest rate, the real exchange rate (through γ) and the growth rate and level of real economic activity. The latter enter through n and because real tax receipts and other current revenues and outlays are functions of (among other things) the levels of output and employment. The consistency check should in principle be extended to include these variables. When this is not done, the danger exists that changes in policy that are intended to eliminate an ex-ante inconsistency between inflation plans and budget deficit plans will only do so by enlarging the inconsistency between the inflation and deficit projections on the one hand and the real interest rate, real exchange rate and real economic activity assumptions on the other hand.

The base money demand function

Having estimated base money demand functions for the UK and USA for the post-World-War-II period, it is easy to become impressed (and depressed) with the instability of this relationship. Much of this can no doubt be explained (ex-post) as reflecting irregular spurts of financial innovation and development. In addition there are likely to be episodes of (dis)intermediation in response to changes in regulatory policy. In a new industrial country such as e.g. Brazil all these sources of instability are likely to be present in force, plus some others. Variations in the degree of stringency of capital controls are likely to be reflected in variations in the degree of (direct) international currency substitution. Changes in reserve requirements are also likely to shift a simple base money demand function such as the one given in equation (25).

The inflation function

Equations (26)* and (27) define a completely 'backward-looking' inflation and price process. There is no room for announcement effects,

credibility etc. to affect the rate of inflation other than through the shift dummy x. There is also no room in the equation (again except through x) for a role for *indexation arrangements*, direct or indirect effects of *exchange rate behaviour* or *cost pressures* (domestic or imported). While it is easy to criticise any piece of empirical work for errors of omission (and errors of commission), these specific criticisms are born not out of a scholarly thirst for purity, but out of worries resulting from the fact that these particular omitted factors are widely recognised as having played (and continuing to play) a major role in the economic processes governing contemporary Brazil, Argentina, Mexico, etc.

<u>The seigniorage Laffer curve</u>

As was pointed out in Section 6, many theoretically and empirically acceptable money demand function have the property that there is more than one rate of inflation that can generate any given amount of seigniorage. This is most easily seen if we consider stationary equilibria in which the (actual and expected) rate of inflation is constant over time. (Not all plausible money demand functions have this property; e.g. the hyperbolic function $h = a^{*}/(b^{*}+\pi)$ with $a^{*}, b^{*}>0$ has seigniorage independent of the rate of inflation; the *constant* velocity version $h = a$, $a>0$ has seigniorage increasing with inflation forever; other reasonable functions yield many local seigniorage peaks and troughs).

The long-linear function often used in the Bank's analyses has the unimodal long-run seigniorage Laffer curve depicted in Figure (6c,d). When the inflation rate is calculated that yields a given amount of seigniorage, the *lower* of the two rates is typically chosen in Bank analyses. While this may be good prescriptive economics (no rational policy-making process would drive the rate of inflation beyond the point at which it yields maximal revenue), it is likely to be bad positive economics. Every

hyperinflation in history clearly put the country experiencing it on the revenue-inefficient side of the seigniorage Laffer curve. The same is likely to have been true with the very high rate of inflation seen in a number of Southern Cone countries in recent years.

Inflation and the primary deficit

It is likely to be empirically important to allow for the effect of inflation on the primary deficit. As pointed out in Section 6, we know from the work of Tanzi [1978] and others that with very high rates of inflation, government real tax revenues will decline, quite often dramatically. If there are any elements of nominal progression in the income tax structure, this real revenue-raising effect will be swamped by the effect of collection lags and lags in the inflation adjustment of specific duties etc. Less is known about the effect of high (and variable) rates of inflation on government expenditures. Empirical studies must allow for feedback from the inflation rate to be first term on the right-hand-side of equation (24).

More lack of superneutrality

Different rates of inflation may affect the right-hand-side of equation (24) not only through the primary deficit but also through the real interest rate and the depreciation of the real exchange rate. I don't know how to evaluate the quantitative significance of this point.

Unclever budget cuts

It may be unnecessary to point out that even within the primary deficit total, the various spending and revenue components are not independent of each other, in the short run and in the long run. Spending cuts that depress activity also depress output-or-income-sensitive receipts. Even without extreme Lafferian responses, supply-side-friendly tax cuts or subsidies may recoup part of the initial budgetary cost. Cuts in

productive public sector capital formation may damage the supply side of the economy, conceivably to the point that the public deficit rises rather than falls (see Buiter [1987b]). While these problems are not specific to the approach under consideration, they are important when the policy response to an "inconsistency verdict" is being pondered.

8. Conclusion

This paper is a non-systematic perusal of some of the key issues in the design and conduct of fiscal policy for stabilisation and structural adjustment in developing countries. Its coverage undoubtedly is subject to both Type I and Type II errors. I nevertheless hope that its focus on the external and internal transfer problems, national solvency and public sector solvency (with a fairly extended discussion of the inflation tax and the consistency of fiscal, financial and monetary plans) does provide a useful starting point for further discussion.

Footnotes

* Many of the participants at a World Bank (W.D.R.) workshop on fiscal policy in the O.E.C.D. and in the developing countries (on October 30, 1987) made helpful comments on an earlier draft of this paper which was written as a background paper for the 1988 W.D.R. Among them were Guillermo Calvo, Vito Tanzi, Swadar van Wijnbergen, Alain Ize and Brian Pinto. Gus Ranis also made a number of helpful suggestions on an earlier draft. The World Bank does not accept responsibility for the views expressed herein which are those of the author and should not be attributed to the World Bank or to its affiliated organizations. The findings, interpretations, and conclusions are the results of research supported by the Bank, they do not necessarily represent official policy of the Bank. The designations employed, the presentation of material, and any maps used in this document are solely for the convenience of the reader and do not imply the expression of any opinion whatsoever on the part of the World Bank or its affiliates concerning the legal status of any country, territory, city, area, or of its authorities, or concerning the delimitation of its boundaries, or national affiliation.

1 These are Argentina, Bolivia, Brazil, Chile, Columbia, Cote D'Ivoire, Ecuador, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela and Yugoslavia. The World Bank's group of seventeen "Heavily-indebted countries" adds Costa Rica and Jamaica. Further major debtors are South Korea, Thailand and Turkey

2 The World Bank's World Development Report identifies 24 countries as Low-Income Sub-Saharan Africa and 10 more as (lower) middle-income Sub-Saharan Africa.

3 A reduction in the private sector financial deficit will ceteris paribus also improve the current account deficit. Where this can be achieved through an increase in the savings rate, it will in general be welcome. In many of the poorer developing countries, the scope for this is rather limited. A reduction in the private sector financial deficit through a cut in private sector capital formation is unlikely to be desirable.

4 Again this ought to be called the *increase* in the (internal) fiscal transfer, but established usage and verbal hygiene conflict here too.

5 It is assumed for simplicity that the interest rate on foreign exchange reserves is the same as that on foreign debt.

6 For simplicity all net external current transfers are assumed to accrue to the government. This assumption is most inappropriate in the case of private remittances.

7 Q_X, Q_M and Q_N are domestic production of the exportable good, the importable good and the non-traded good respectively. C_j^k and I_j^k; $k = P,G$; $j = X,M,N$ are domestic demands for the three goods by the private, (P), and public (G) sectors respectively.

8 In the long run, a smaller stock of external debt obtained as the result of a period of cumulative current account surpluses permits a country to run a sustainable smaller trade balance surplus or a larger deficit.

9 Note that C^P is aggregate consumption spending measured in GDP units, i.e. $C^P = (P_X C_X^P + P_M C_M^P + P_N C_N^P)P^{-1}$.

10 Private investment spending on non-traded goods is held constant in this thought experiment and the next one involving changes in public spending on non-traded goods.

11 The production of exportables need not fall absolutely, as in Figure 2A.

12 Given the volume and the composition of the government's "exhaustive" public spending programme on goods and services, and ignoring the distortionary effects of non-lump sum taxes.

13 If the money wage is W, the real consumption wage $\tilde{w}$ is defined by:

$$\tilde{w} = \frac{W}{\tilde{P}}$$

$$\tilde{P} = \tilde{P}_T^{1-\tilde{\alpha}} P_N^{\tilde{\alpha}} \qquad 0 < \tilde{\alpha} < 1$$

$$\tilde{P}_T = P_X^{1-\tilde{\beta}} P_M^{\tilde{\beta}} \qquad 0 < \tilde{\beta} < 1$$

$\tilde{P}$ is the (Cobb-Douglas) consumer price index; $\tilde{P}_T$ is the consumer price index for traded goods. $\tilde{\beta}$ is the share of imports in traded goods spending and $\tilde{\alpha}$ the share of non-traded goods in total consumption spending. If the non-traded goods price is a markup on unit labour cost then $P_N = (1+\mu)WL_N/Q_N$ where μ is the proportional markup and L_N is labour employed in the non-traded goode sector. This implies

$$\tilde{w} = \frac{Q_N}{L_N(1+\mu)} \left[\frac{P_N}{\tilde{P}_T}\right]^{1-\tilde{\alpha}}$$

If there are no intersectoral differences in factor intensities (so Q_N/L_N is independent of Q_N), and if the markup is constant then a decline in the relative price of non-traded goods lowers the real consumption wage. This will be reinforced if the average product of labour in the non-tradad goods sactor declines as $P_N/\tilde{P}_T$ declines and Q_N contracts, which is likely to happen if the non-traded goods sector la relatively labour intensive.

14 Measured in terms of foreign GDP.

15 In "long-hand" algebra,

$$PV(s; cb+e^*; r^*+\gamma-n) = \int_s^{\infty} [cb(v)+e^*(v)]\, e^{-\int_s^v [r^*(u)+\gamma(u)-n(u)]du}\, dv.$$

16 Two equivalent ways of writing (13) are

$$-\frac{E(s)F^*(s)}{P(s)} = PV\left[s;\ TB + \frac{EA^*}{P};\ r^* + \gamma\right] \qquad (13')$$

and

$$-F^*(s) = PV\left[s;\ \frac{PTB}{E} + A^*;\ i^*\right] \qquad (13'')$$

Equation (13') has the current real value of the external debt matched by the present discounted value of future real primary surpluses, using the real exchange-rate-depreciation-corrected foreign real interest rate $r^* + \gamma$ to discount the future primary real surpluses. Equation (13") has the current foreign currency value of the nation's external debt matched by the present discounted value of future primary surpluses measured in foreign currency, using the foreign nominal interest rate $i^* = r^* + \pi^*$ to discount the future primary foreign currency surpluses.

17 Technically, the condition is:

$$\lim_{\tau\to\infty} -f^*(\tau)e^{-\int_s^{\tau}[r^*(u)+\gamma(u)-n(u)]du} = 0$$

or

$$\lim_{\tau\to\infty} -\frac{E(\tau)F^*(\tau)e^{-\int_s^{\tau}[r^*(u)+\gamma(u)]du}}{P(\tau)} = 0$$

or

$$\lim_{\tau \to \infty} - F^*(\tau) e^{-\int_s^\tau i^*(u)du} = 0$$

18 I am concerned with solvency only, not with optimal or time-consistent borrowing strategies. It may well be optimal, under certain conditions, to run current account surpluses or even to become a net external creditor.

19 This section draws on Buiter [1983, 1985] and Anand and van Wijnbergen [1987].

20 Depending on the accounting conventions one adopts, J could include the operating surpluses (deficits) of the state enterprise sector. Alternatively one could include these in r. Note that it is *cash returns* that enter into the accounts through ρ, not the implicit social rate of return.

21 There again is a transversality or terminal condition to get from (16) to (19) given by

$$\lim_{\tau \to \infty} d(\tau)\exp(-\int_s^\tau [r^*(u)+\gamma(u)-n(u)]du) = 0$$

22 For simplicity $r = 0$ and $i = \tau = \mu$ in Figure 6.

FIGURE 1

Production and consumption of traded and non-traded goods and the real exchange rate

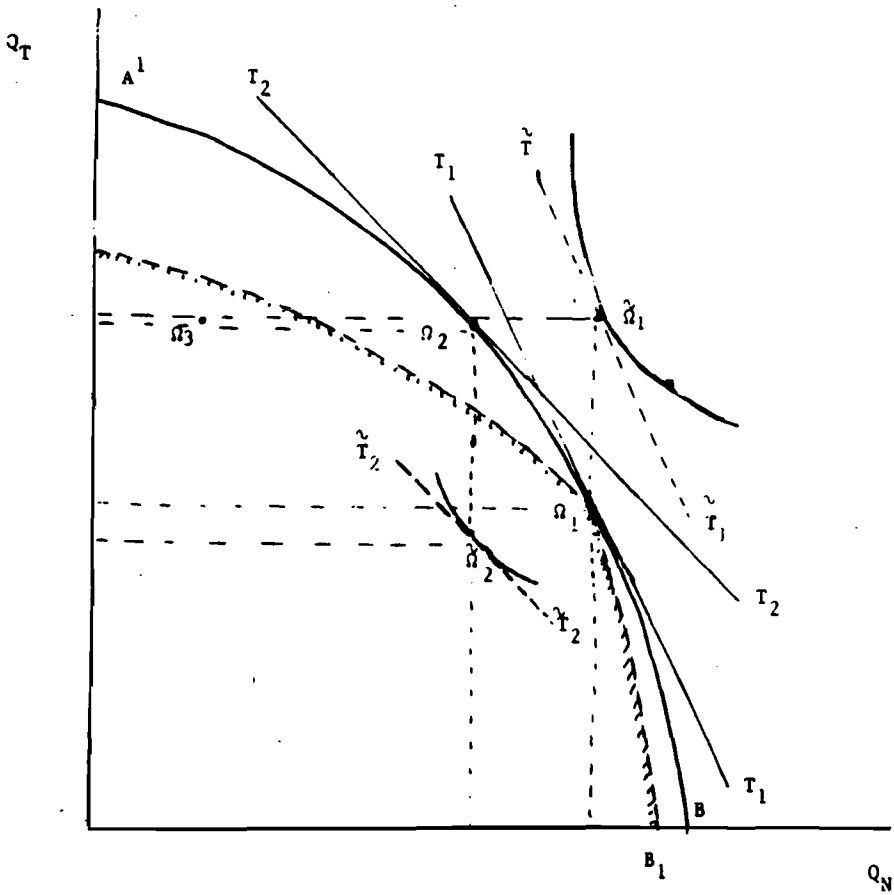


FIGURE 2A

Production and consumption of exportables and import-competing goods and the terms of trade

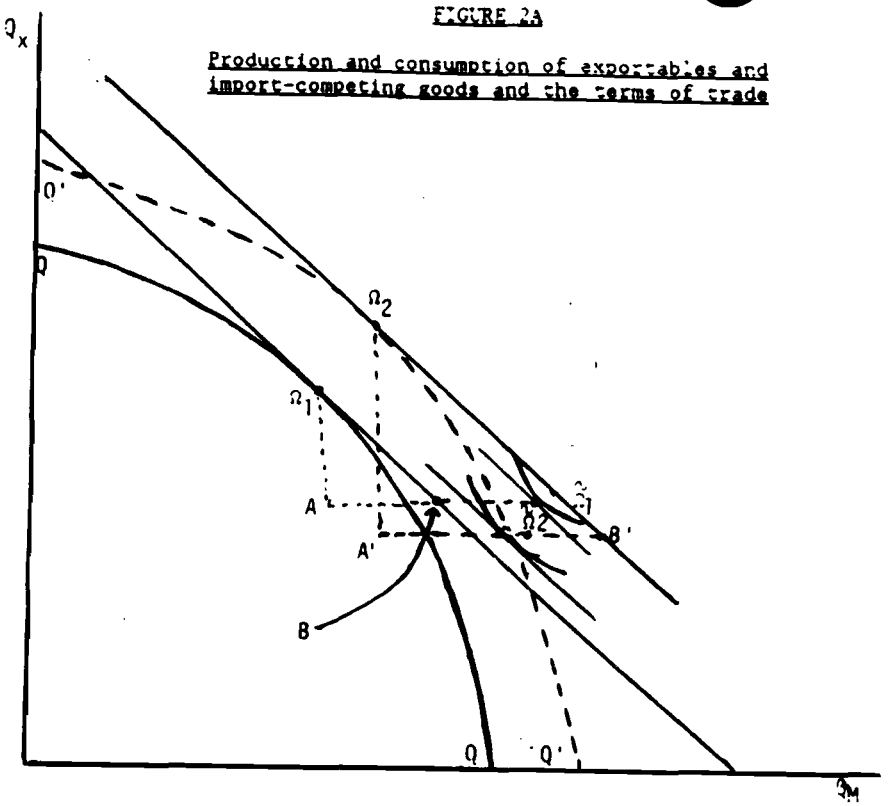


FIGURE 2B

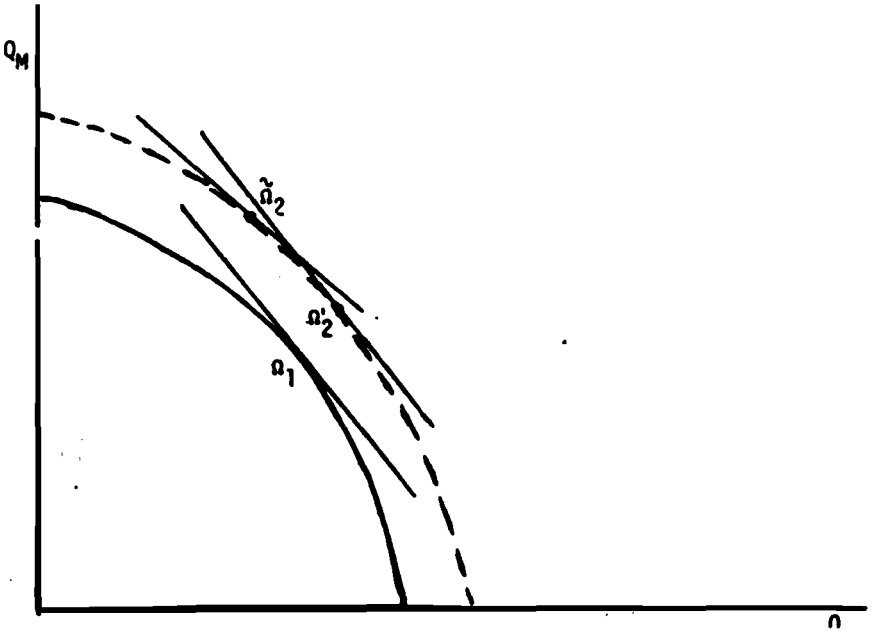
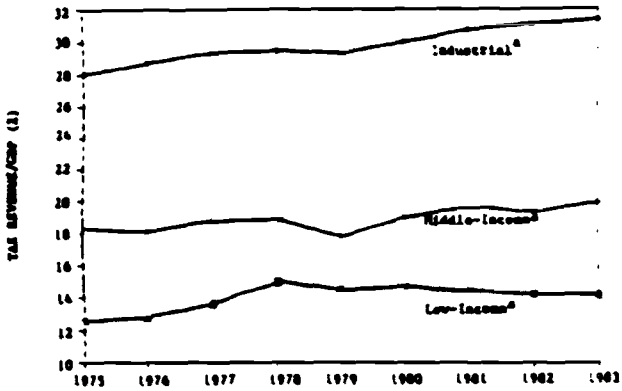


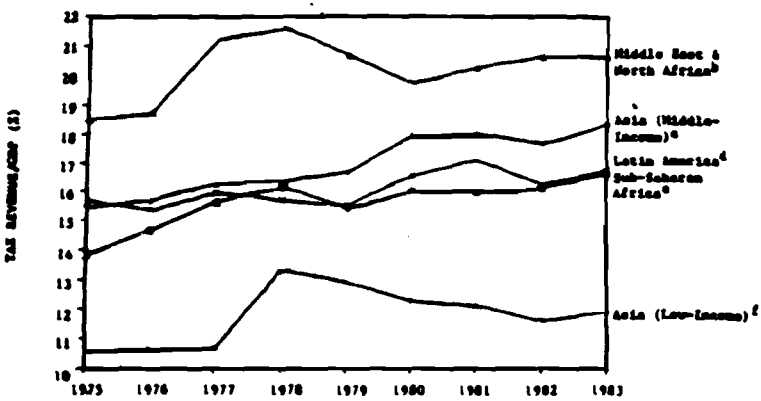
FIGURE 3

Trends in tax to GDP ratios, 1975-1983

a) By Income



b) By Region (Developing countries only)



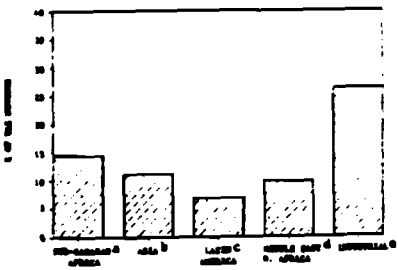
Note: Figures are unweighted, representing the average pattern for countries in the sample. The period, 1975-83, yields the largest comparable sample based on available data.

a. Industrial sample includes seventeen countries, middle-income includes thirty four countries, and low-income includes eleven countries.
b. Includes Burkina Faso, Burundi, Cameroon, Liberia, Kenya, Mali, Senegal, Tanzania, Zaire, and Zimbabwe.
c. Includes Indonesia, Korea, Malaysia, Singapore, and Thailand.
d. Includes Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela.
e. Includes Egypt, Iran, Israel, Morocco, Oman, Syria, Tunisia, Turkey, and Yemen.
f. Includes India, Nepal, Pakistan, and Sri Lanka.

FIGURE 4

Regional variation in direct taxes, 1983
(as a per cent of total revenue)

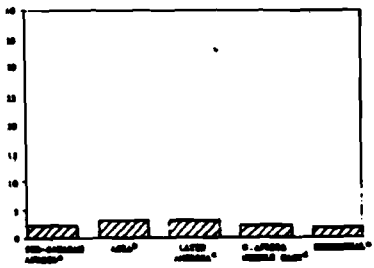
a) Personal Income Taxes



b) Company Income Taxes

c) Social Security Taxes

d) Property and Wealth Taxes



Note: Figures are unweighted, representing the average pattern for countries in the sample. The period, 1975-83, yields the largest comparable sample based on available data.

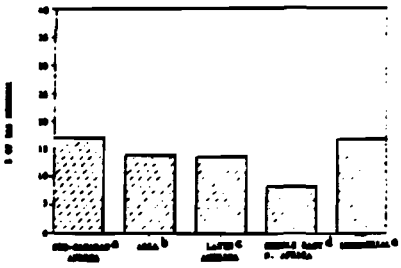
a. Sub-Saharan Africa includes Burkina Faso, Burundi, Cameroon, Gambia, Lesotho, Liberia, Mali, Senegal, Tanzania, and Zaire.
b. Asia includes India, Indonesia, Korea, Malaysia, Nepal, Pakistan, Singapore, Sri Lanka, and Thailand.
c. Latin America includes Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Guyana, Mexico, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela.
d. Middle East/North Africa includes Egypt, Iran, Israel, Morocco, Tunisia, Turkey, and Yemen (Arab Republic).
e. Industrial includes OECD industrial market economies except Japan and New Zealand.

Source: IMF, Government Finance Statistics, 1986.

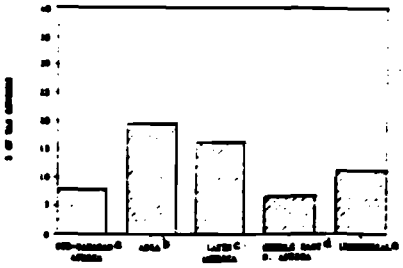
FIGURE 5

Regional variation in indirect taxes, 1983
(as per cent of total tax revenue)

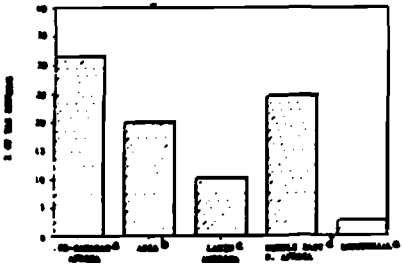
a) Broad-based Taxes (Sales, VAT, and Turnover)



b) Excise Taxes



c) Import Taxes



d) Export Taxes

Note: Figures are unweighted, representing the average pattern for countries in the sample. The period, 1975-83, yields the largest comparable sample based on available data.

a. Sub-Saharan Africa includes Burkina Faso, Burundi, Cameroon, Gambia, Lesotho, Liberia, Mali, Senegal, Tanzania, and Zaire.
b. Asia includes India, Indonesia, Korea, Malaysia, Nepal, Pakistan, Singapore, Sri Lanka, and Thailand.
c. Latin America includes Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Guyana, Mexico, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela.
d. Middle East/North Africa includes Egypt, Iran, Israel, Morocco, Tunisia, Turkey, and Yemen (Arab Republic).
e. Industrial includes MDR industrial market economies except Japan and New Zealand.

Source: IMF, Government Finance Statistics, 1985.

FIGURE 3

Money demand and seigniorage in the long run

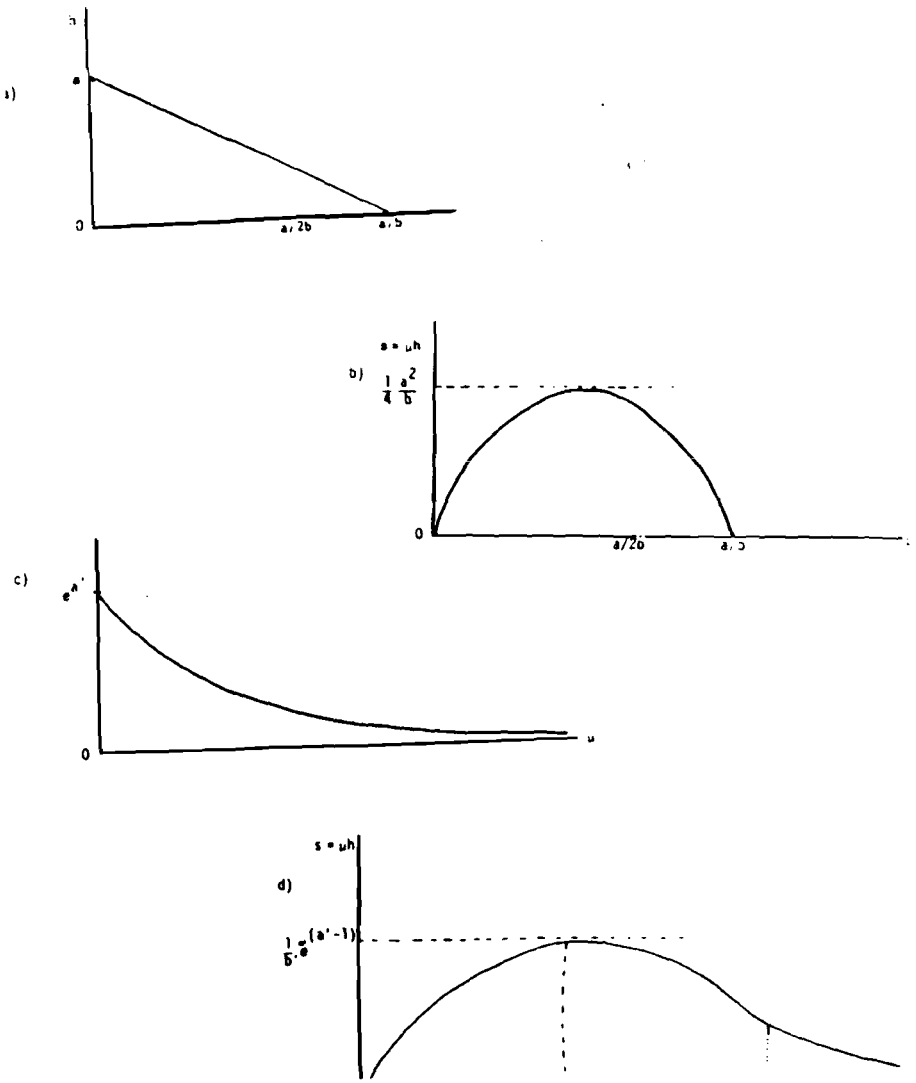


TABLE 1

Variations in tax composition for countries grouped by income, 1975 and 1983[a]

Tax category[b]	Low-income[c]		Middle-income[d]		Industrial[e]	
	1975	1983	1975	1983	1975	1983
Domestic income	19.6	19.9	30.5	31.4	34.0	33.3
Individual	(9.9)	(9.6)	(9.4)	(10.7)	(26.4)	(26.2)
Corporate	(8.4)	(8.4)	(13.1)	(13.5)	(7.3)	(7.1)
Other direct taxes	7.9	7.3	18.5	17.0	31.7	33.1
Social security	(1.0)	(2.2)	(12.9)	(10.1)	(28.2)	(29.6)
Property	(3.4)	(2.5)	(2.8)	(2.6)	(2.1)	(1.8)
Domestic commodity	29.0	35.8	26.6	30.8	29.9	30.6
Sales, VAT, turnover	(11.1)	(18.8)	(7.9)	(10.5)	(16.0)	(16.6)
Excises	(11.1)	(13.1)	(13.1)	(13.3)	(10.9)	(11.1)
International trade	43.6	37.0	24.4	20.8	4.5	2.9
Import	(32.9)	(32.6)	(19.6)	(16.2)	(4.4)	(2.7)
Export	(7.7)	(3.8)	(3.5)	(1.4)	(0.1)	(0.2)

Notes:

a. Figures are unweighted representing the average pattern for countries in the sample.

b. Figures for subcategories do not add up to the figure for each category due to the presence of smaller unallocated taxes.

c. Low-income sample includes eleven countries.

d. Middle-income sample includes thirty-six countries.

e. Industrial market includes nineteen countries.

Source: *Government Finance Statistics*.

TABLE 2

Some estimates of capital flight in new industrial countries
(Billions U.S.$)

	1979	1980	1981	1982	1983	1984
Argentina	2.2	3.5	4.5	7.6	1.3	-3.4
Brazil	1.3	2.0	-1.4	1.8	0.5	4.0
Korea	-0.5	-0.7	-0.8	0.5	-0.7	-0.6
Mexico	-1.1	2.2	2.6	4.7	9.3	2.6
Philippines	0.0	-0.1	1.3	0.0	-1.5	-1.8
Venezuela	3.0	4.8	5.4	3.2	3.1	4.0

Notes: These estimates use Wm. Cline's definition of capital flight as computed by Cumby and Levich.

Source: *Cumby and Levich* (1987).

TABLE 3

Revenue from seignorage on currency in selected countries
(average 1980-85)

	Seignorage revenues (increase in currency as per cent of GDP)	Ratio of currency holdings to GDP (per cent)	Currency growth (per cent) per year	Inflation (per cent) per year
High seignorage revenues				
Argentina	4.0	3.8	269	274
Bolivia	6.2	6.1	438	506
Ghana	2.2	6.1	45	54
Sierra Leone	2.4	7.7	35	43
Moderate seignorage revenues				
Brazil	1.0	1.4	129	147
Israel	1.1	1.3	165	181
Mexico	1.5	3.7	50	58
Peru	1.9	3.1	92	97
Turkey	1.2	3.8	38	46
Low seignorage revenues				
Bangladesh	0.6	4.0	16	12
Colombia	0.8	4.7	18	22
Cote d'Ivoire	0.7	9.2	8	7
Dominican Republic	0.7	4.6	16	15
Korea	0.5	4.3	13	9
Nigeria	0.8	7.2	13	16
Venezuela	0.4	4.5	8	12

Notes: The first column is calculated as the end-of-year currency outside banks (IFS line 14a) minus the end-of-year value of the previous year, divided by the current year GDP. The second column is the ratio of the average of beginning-of-year and end-of-year currency outside banks to current GDP. The third column is the percentage change in currency outside banks from end-of-year to end-of-year. The final column is the percentage change in CPI (IFS line 64) from December to December. The geometric average of growth rates is used for columns three and four; the arithmetic average of ratios is used for columns 1 and 2.

Source: *IFS*

REFERENCES

Ahamed, L., (1986), 'Stabilization Policies in Developing Countries', *The World Bank Research Observer*, Vol.1, January, pp.79-110

Anand, R. and Wijnbergen, S. van., (1987), 'Inflation and the Financing of Government Expenditure in Turkey: An Introductory Analysis', World Bank mimeo, Revised June.

Blinder, A., (1987), 'Credit Rationing and Effective Supply Failures', *Economic Journal*, Vol.97, June pp.327-352.

Buiter, W., (1983a), 'Measurement of the Public Sector Deficit and Its Implications for Policy Evaluation and Design', *I.M.F. Staff Papers*, Vol.30, June pp.306-349.

Buiter, W., (1983b), 'The Theory of Optimum Deficits and Debt', in Federal Reserve Bank of Boston, Conference series No.27, *The Economics of Large Government Deficits*, October, pp.4-69.

Buiter, W., (1985), 'A Guide to Public Sector Debt and Deficits', *Economic Policy*, Vol.1, November, pp.14-61.

Buiter, W., (1986a), 'Macroeconomic Responses by Developing Countries to Changes in External Economic Conditions', NBER Working Paper No.1836, Feb.

Buiter, W., (1986b), 'Structural and Stabilisation Aspects of Fiscal and Financial Policy in the Dependant Economy', NBER Working Paper No.2023, September, forthcoming in *Oxford Economic Papers*.

Buiter, W., (1987a), 'The Current Global Economic Situation, Outlook and Policy Options with Special Emphasis on Fiscal Policy Issues'. *Centre for Economic Policy Research*, Discussion Paper No. 210, November.

Buiter, W., (1987b), 'Can Public Spending Cuts be Inflationary?', mimeo.

Coutinho, R., (1986), 'Public Sector Deficits and Crowding Out: A Consistency Model for Brazil', mimeo, World Bank, December.

Coutinho, R., (1988), 'Public Deficits, Financeable Deficits, and Stabilization', mimeo, World Bank, February

Cumby, R. and Levich, R., (1987), 'On the Definition and Magnitude of Recent Capital Flight', NBER Working Paper No.2275.

Dervis, K. and Petri, P., (1987), 'The Macroeconomics of Successful Development: What are the lessons?', mimeo, March.

Diaz-Alejandro, C., (1965), *Exchange Rate Devaluation in a Semi-Industrialised Economy:* The Experience of Argentina, 1955-61, Cambridge MA: MIT Press.

Dornbusch, R., (1980), *Open Economy Macroeconomics*, Basic Books, N.Y.

Dornbusch, R., (1986), *Dollars, Debts and Deficits*, MIT Press.

Eaton, J. and Gersovitz, M., (1981a), 'Debt with Potential Repudiation: Theoretical and Empirical Analysis', *Review of Economic Studies*, Vol.48, pp.289-309.

Eaton, J. and Gersovitz, M., (1981b), *Poor Country Borrowing and the Repudiation Issue*, Princeton Studies in International Finance No.4, Princeton NJ.

Eaton, J. and Gersovitz, M., (1983), 'Country Risk: Economic Aspects', in R.J. Herring ed. *Managing International Risk'*, New York, Cambridge University Press.

Eaton, J., Gersovitz, M. and Stiglitz, J., (1986), 'The pure theory of country risk', *European Economic Review*, Vol.30, pp.481-513.

Edwards, S., (1986), 'Are Devaluations Contractionary?' *Review of Economics and Statistics*, Vol.68, August, pp.501-508.

Hague, N., (1986), 'Fiscal Policy and Private Saving Behaviour in Developing Countries', World Bank Discussion Paper Report No. DRD.209, December.

Hague, N. and Montial, P., (1987), 'Richardian Equivalence, Liquidity Constraints, and the Yaari-Blanchard Effect: Tests for Developing Countries', World Bank DRD mimeo, May.

Khan, M. and Lizondo, J., (1987), 'Devaluation, Fiscal Deficits, and the Real Exchange Rate', *The World Bank Economic Review*, 1, January, pp.357-374.

Kletzer, K., (1984), 'Asymmetric information and LDC Borrowing with Sovereign Risk', *Economic Journal*, Vol.94, pp.287-307.

Knight, P., (1986), 'Brazil, Structural Adjustment, Stabilization and Growth', 1986 Country Economic Memorandum, World Bank.

Krugman, P. and Taylor, L., (1978), 'Contractionary Effects of a Devaluation', *Journal of International Economics*, Vol.8 August, pp.445-456.

Sachs, J. ed. (1987), *Developing Country Debt*, NBER Conference Report.

Tanzi, V., (1978), 'Inflation, Real Tax Revenue and the Case for Inflationary Finance: Theory with an Application to Argentina', *IMF Staff Papers*, Vol.25, September.

Wijnbergen, S. van, (1986), 'Exchange Rate Management and Stabilization Policies in Developing Countries', in S. Edwards and L. Ahamed eds., *Economic Adjustment and Exchange Rates in Deveoping Countries*, University of Chicago Press.

The Economics of the Government Budget Constraint

by

Stanley Fischer

Vice President
Development Economics and Chief Economist
World Bank

Preliminary
March 1989

Preliminary
March 1989

THE ECONOMICS OF THE GOVERNMENT BUDGET CONSTRAINT

Stanley Fischer[1]

I am both honored and grateful to have been invited to deliver the Zahid Husain Memorial Lecture. Mr. Husain's achievements as the first Governor of the State Bank, and as the first Chairman of the Planning Commission of Pakistan, his remarkable strength of character, his erudition, and his combination of the central banker's conservatism with a pragmatic long-term perspective towards the problems of development, have been admiringly described to me by his former employee and my colleague, Moeen Qureshi. The fact that I follow three of my World Bank predecessors, Irving Friedman, Hollis Chenery and Anne Krueger, in delivering this lecture attests to the long-term relationship between Pakistan and the World Bank, a relationship which is highly valued by the Bank.

The topic of this Zahid Husain Memorial Lecture, the economics of the government budget constraint, is not the most obvious choice for a central bank audience. Surely it would be more appropriate to talk of the staple questions of monetary policy, whether to target the money stock or rates of return on assets, whether to fix the exchange rate or allow it to float, and if to fix it, to what currency basket, how to maintain prudential control of the financial system while obtaining the beneficial effects of competition, and so forth.

---

[1]Vice President, Development Economics and Chief Economist, the World Bank.
This paper was prepared for presentation as the Zahid Husain Memorial Lecture at the State Bank of Pakistan, Karachi, March 2 1989. The views expressed are those of the author and are not official views of the World Bank management or Board of Directors. Collaboration from William Easterly of the Macroeconomics and Growth Division of the World Bank is gratefully acknowledged.

One interpretation would be that the choice of topic is dictated by prudence. Central bankers know that fiscal deficits are the ultimate source of macroeconomic instability and inflation, while finance ministers are more inclined to attribute their macroeconomic problems to inadequate monetary policy; there is therefore nothing safer than talking about the dangers of fiscal excess in a central bank. But prudence is not consciously the reason for choosing this topic. Rather it is that fiscal policy is indeed key to macroeconomic stability and one of the keys to development -- and that recent developments in the analysis of the consequences of deficit finance reinforce that message.

When government spending and taxation amount as they do in many industrialized economies to around 40% of GNP, it is inevitable that tax and expenditure decisions exert a major impact on the allocation of resources. Government spending in low-income developing countries averages 20% of GNP[2], still quite sufficient to affect the allocation of resources throughout the economy. The method of financing of that spending also affects the allocation of resources, both because taxes and tariffs affect relative prices, and also because the financing of the government budget deficit affects inflation, real interest rates, the internal and external debt, and the development of the financial system.

I shall concentrate in this lecture on the macroeconomic effects of government budget deficits, focussing on the consequences of different methods of financing the deficit, and the links between the budget deficit

---

[2]World Development Report 1988, Chapter 2, contains comparative data on government revenues and expenditure. The Report presents an authoritative modern account of the role of fiscal policy.

and inflation. The lecture is built around three simple relationships: the national income accounts budget deficit identity; the budget deficit financing identity; and the dynamic equation for the evolution of the debt to GNP ratio.

I. Macroeconomic Effects of the Deficit: Standard Analysis.

The Keynesian revolution brought the budget deficit out of the closet as a macroeconomic variable. While governments had run budget deficits without the aid of Keynesian theories before, the pre-Keynesian presumption was that the budget should generally be balanced, or perhaps even in surplus in peacetime in order to pay off the government debt generated by wartime deficits. The devotion to balanced budgets is evident from the desire of political candidates and governments to balance the budget even during the Great Depression. Though few succeeded in balancing the budget, some governments raised tax rates during that period.

One of the contributions of Keynes was to provide a framework -- albeit incomplete -- in which it is possible to analyze the question of how the deficit should behave. The earliest emphasis was on fiscal policy and the deficit as components of aggregate demand. From that perspective, Keynesians saw no need to balance the budget during periods of recession. Instead the notion of the cyclically balanced budget, that the budget should be in balance on average over the business cycle, in surplus during booms and in deficit during recessions, was developed as a norm for fiscal behavior.

There were of course well-known refinements to this conception. In the first instance, the balanced budget multiplier shows that the deficit is not an unambiguous measure of the impact of fiscal policy on aggregate demand; given the budget deficit, an equal increase in government spending and revenues increases aggregate demand. Second, the budget deficit is itself endogenous, affected by the state of the economy as well as affecting it. As a result, the notion of the full employment, or high employment, or <u>structural deficit</u> was developed. This estimates the size of the budget deficit as it would be if output were at the full employment level[3].

Once the threat of widespread post-World War II unemployment had receded, the emphasis shifted from aggregate demand to the effects of fiscal policy on the components of demand. Here the overall saving-investment identity or resource constraint facing the economy is a useful guide to analysis:

(1) Budget deficit = (Saving - Investment) + (Current account deficit)

Since equation (1) is an identity, there is not much arguing with it[4]. To illustrate its uses, suppose the economy is at full employment, and for the moment take the rate of saving as given. Equation (1), the saving-investment identity, then implies the <u>crowding-out</u> problem: an increase in the budget deficit will result in either a reduction in investment or an increase in the ~~trade~~ current account deficit. Until this decade, textbooks -- at least

---

[3]Appendix 2 contains a discussion of budget deficit measurement and definitions.

[4]It is however necessary to define terms consistently; the budget deficit in (1) is that of the consolidated public sector, and saving and investment are those of the private sector.

U.S. textbooks,-- tended to emphasize the possibility of crowding out investment. The clear relationship in this decade between the U.S. budget deficit and its current account deficit has reminded us that there are two terms on the right hand side.

It would be a mistake though to overcompensate by assuming there is an automatic one-to-one link between the budget and current account deficits. To take one example, the U.K. has been running a large trade deficit in recent months while maintaining a strong fiscal position. The effect on the trade deficit of a reduction in the budget deficit depends on the accompanying monetary policy and its impact on the exchange and real interest rates. Fiscal contraction accompanied by monetary easing would reduce the interest rate and lead to a depreciation of the exchange rate, thus tending to increase investment while reducing the trade deficit.

The standard Keynesian analysis of the impact of fiscal policy has been affected by two important theoretical developments. The first is the more sophisticated model of saving behavior that emerges from the life-cycle and permanent income theories of consumption of Modigliani and Friedman. To this point we have taken the rate of saving as determined by the level of disposable income, and have not focussed on the link between the budget deficit and saving. The life cycle and permanent income theories both relate current consumption to a measure of permanent or life-time disposable income. Accordingly, a current change in taxes that does not change the present value of taxes should not, ceteris paribus, reduce current consumption. Thus a temporary tax change should have a smaller effect on consumption than a permanent tax change. This of course implies that the

impact of changes in the budget deficit on spending is affected by expectations of the permanence of the deficit.

Pursuing the argument to its logical conclusion, Barro (1974) showed that under a very specific set of assumptions, lump-sum changes in taxes would have no impact on consumer spending. Equivalently, and this is a more striking statement, a cut in taxes that increases disposable income, would automatically be accompanied by an identical increase in saving. This is the so-called Ricardian equivalence result, that deficits and taxes are equivalent in their effects on consumption.

The explanation is quite simple: the far-seeing consumer recognizes that the government debt generated through deficit spending will eventually be paid off by increased taxes, the present value of which is exactly equal to the present value of the reduction in taxes. Taking the implied increase in future taxes into account, he or she saves the amount necessary to pay them.

The importance of the Ricardian equivalence hypothesis cannot be exaggerated. If the hypothesis holds, then budget deficits do not affect national saving, nor interest rates, nor the balance of payments, and nor does the method of financing of social security affect capital accumulation. In terms of equation (1), the hypothesis implies that an increase in the budget deficit would, under certain circumstances, be accompanied by an increase in private saving -- and that both investment and the trade balance would be unaffected.

Despite the sharpness of its predictions, it has not been possible to reject Ricardian equivalence sufficiently decisively to persuade proponents of the theory[5] to change their views. Others regard the evidence as sufficient to rule out Ricardian equivalence as more than an extremely interesting theoretical possibility. I believe the evidence, including that from the United States in this decade, still supports the view that tax cuts increase aggregate demand, though the impact does depend on the expectation of the permanence of the change.

The second development takes off from the extremely short-run nature of the Keynesian analysis of fiscal policy. Because asset stocks are assumed fixed in the Keynesian model, the consequences of the method by which the budget deficit is financed are not pursued.

II. Financing the Budget Deficit.

There are four ways of financing the public sector deficit: by printing money, running down foreign exchange reserves, borrowing abroad, and borrowing domestically. In a word equation[6]:

(2) Budget deficit = Money printing + (foreign reserve use + foreign borrowing) + domestic borrowing

---

[5]Bernheim (1987) reviews and extends the theory and evidence, arguing strongly against Ricardian equivalence.

[6]In both equations (1) and (2) government revenue from the printing of money is treated as a financing source. Private saving in equation (1) is defined to include additions to money holding.

The terms on the right hand side can be grouped in different ways. For instance, the parentheses around the foreign components emphasize the link between the budget deficit and the current account, as in equation (1). Alternatively, parentheses could be placed around (money printing + foreign reserve use), which is equal to domestic credit creation; this emphasizes that domestic credit creation is the alternative to borrowing.

To a useful first approximation, we can associate each of the forms of financing in equation (2) with a major macroeconomic imbalance. Money printing is associated with inflation; foreign reserve use is associated with the onset of exchange crises; foreign borrowing is associated with an external debt crisis; and domestic borrowing is associated with higher real interest rates and possibly explosive debt dynamics. The first approximation is however not the entire story, for there are important links between these problems: for instance between foreign exchange and external debt crises; and between domestic borrowing and inflation. In the next section we focus particularly on the deficit-inflation link.

We now examine each of the methods of deficit financing and its consequences.

Money printing.

It is straightforward to relate the creation of base money to inflation in the usual monetarist way. The printing of money at a rate that exceeds the demand for it at the current price level creates excess cash balances in the hands of the public. The public's attempts to reduce excess cash holdings eventually drive up the overall price level, until equilibrium

is restored. Of course, the link between money and prices is not precise: initially an increase in the real money stock may reduce interest rates, particularly in a low-inflation economy.

The amount of revenue that the government can expect to obtain from the printing of money is determined by the demand for base or high-powered money in the economy, the real rate of growth of the economy, and the elasticity of the demand for real balances with respect to inflation and income. Assume for convenience that the income elasticity of the demand for base money is unity. Assume also that the currency to GNP ratio is 13%[7], as it is in Pakistan -- this is high by international standards.

Then for every one percentage point that GNP increases, the government can obtain 0.13 percentage points of GNP in revenue through the printing of money that just meets the increased demand for real balances. At an annual growth rate of 6.5%, the government should be able to obtain nearly 0.9% of GNP for financing the budget deficit through the non-inflationary printing of money, increasing the high-powered money stock at an annual rate of 6.5%.

Beyond that rate of growth, and given a stable demand function for high-powered money, inflation will result. If the ratio of base to GNP were invariant to the inflation rate, it would be easy to estimate the amount of revenue collected at different inflation rates. For instance, at a 10% inflation rate the government would be able to finance an extra 1.3% of GNP of budget deficit through seignorage, the government's right to print money.

---

[7] I have changed here from high-powered money to currency demand, because rediscounts to the banking system of about 6% of GNP effectively reduce the base on which the government earns seignorage.

However, the demand for high-powered money declines as the inflation rate rises. Eventually the government's revenue from seignorage reaches a maximum, as seen in Figure 1. Thereafter increases in the growth rate of money lead to more inflation and less revenue. In this situation there is a true Laffer curve: beyond point A in Figure 1, the government can obtain more revenue by printing money less rapidly.

At what rate of inflation is the government's revenue from money printing maximized? The historical record shows average (not maximum) rates of seignorage of about 1% of GNP for the industrialized countries, and less than 2.5% of GNP for the developing countries (Fischer, 1982). Estimates of the inflation rate at which maximum rates of seignorage is attained range from 30% to more than 100%. However, these estimates are misleading, for there are lags in the process of adaptation of money demand to inflation. In the very short run of a few weeks, the government can almost always increase its revenue by printing money more rapidly. But the longer a process of high inflation continues, the more the demand for real balances at any given inflation rate declines. People find other ways of doing business, especially by transacting in foreign currencies.

The dynamic process associated with high inflation, in the high double digits, is inherently unstable. The government may initially obtain large amounts of revenue, perhaps even 7-8% of GNP by increasing the money stock rapidly. But as the inflation proceeds and individuals find ways of reducing their holdings of local currency, the government has to print money more rapidly to obtain the same revenue. Thus it is safe to argue that rates of seignorage of much more than 2.5% of GNP would not be sustainable, and that even that rate would only be possible in a rapidly growing economy.

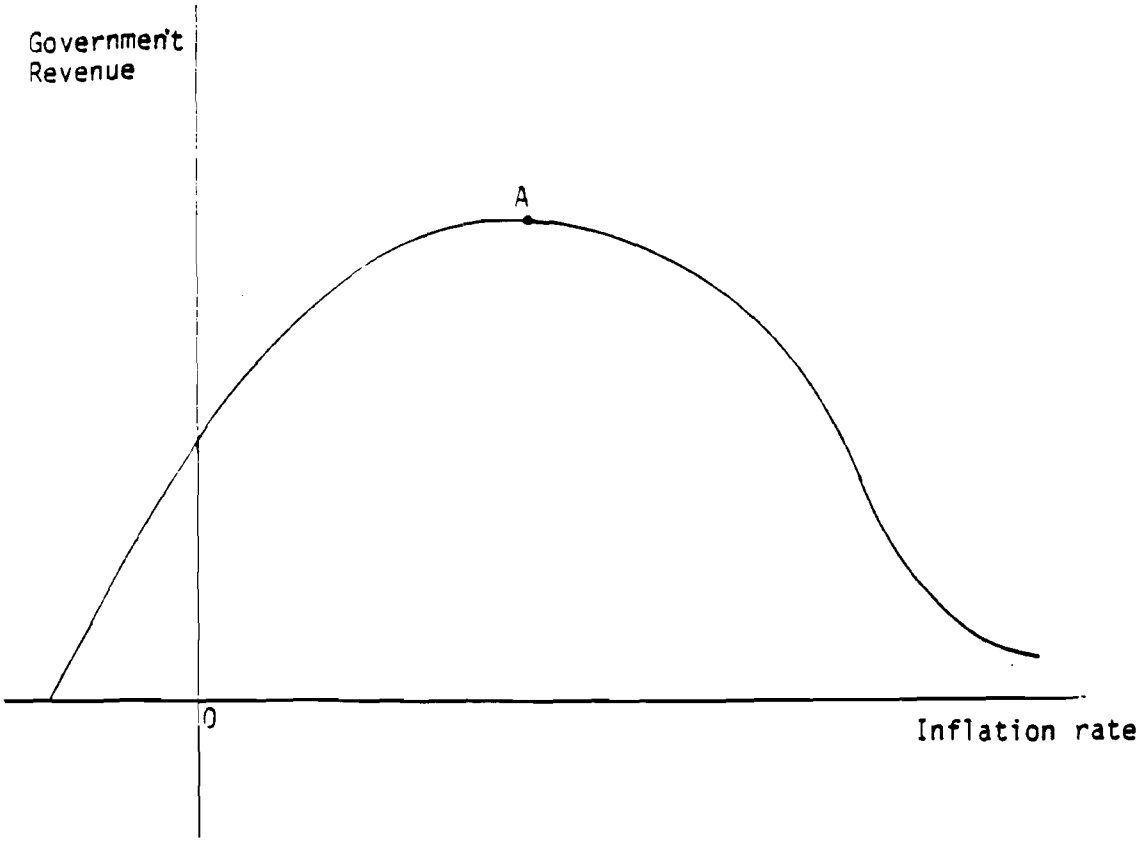


Figure 1: Seignorage Revenue.

In the extreme cases, reliance on seignorage revenue to finance the deficit leads to hyperinflation. A recent example is Bolivia in 1984-85. Inflation in Bolivia soared to over 11,000 percent in 1985, although revenue from currency creation fell to 8% of GDP in 1985 from 14% of GDP in 1984. But Bolivia is only one extreme example, and many other governments -- including recently Nicaragua and Peru -- have suffered from the same phenomenon in recent years, as well as during the great hyperinflations. The instability of the process is reinforced by the fact that the efficiency of the tax system declines as the inflation rate rises, the so-called Keynes-Tanzi effect (Tanzi, 1977).

Reserve use.

The second means of financing the government budget deficit is to run down foreign exchange reserves. By running down reserves instead of printing money, the government can hope for a time to mitigate the inflationary effects of a deficit. This policy slows appreciates the exchange rate relative to the level it would otherwise have had. The policy of slowing exchange depreciation to slow down inflation (carried out not only through reserve use but also through increased foreign borrowing) is one that has been tried time and again and one that cannot be maintained unless the essentials, namely fiscal policy, are made compatible with the lower inflation.

Use of international reserves to finance the deficit has a clear limit. Private sector anticipation that the limit is about to be reached can provoke capital flight and a balance of payments crisis, since exhaustion of reserves will be associated with currency devaluation. The

devaluation that takes place in response to a run on the currency may be blamed on speculators, but is most likely an entirely rational private sector response to unsustainable public policies (see Krugman, 1979).

This is a plausible explanation for the event that precipitated the debt crisis -- the exhaustion of reserves in Mexico in August 1982[8]. A loss of fiscal control resulted in deficits of 14% of GDP in 1981 and 18% in 1982. Capital flight was proceeding at the rate of $7 billion a year over the 1979-82 period. Finally, a speculative attack on the remaining reserves took place in August 1982, leading to the suspension of payments and the beginning of the rescheduling process.

Foreign borrowing.

The third method of financing the public sector deficit is direct foreign borrowing. As in the case of reserve use, extensive recourse to foreign borrowing tends to appreciate the exchange rate, damaging exports and encouraging imports. The dangers of excessive reliance on external borrowing to finance the budget deficit, and of large budget deficits, are convincingly illustrated by the debt crisis. Most of the countries that developed debt servicing difficulties were running excessively large public deficits. Past overborrowing and the perception of uncreditworthiness of most major borrowers have caused this source of finance to be severely limited for most highly-indebted countries at present.

We have already noted that there is no necessary link between budget deficits and trade deficits. Budget deficits can be financed by printing

---

[8]Of course, the exhaustion of Mexican reserves was not the underlying cause of the debt crisis.

money and by domestic borrowing. However when domestic capital markets are thin, and domestic borrowing possibilities limited, a situation that exists in some developing countries, the link between the budget deficit and external borrowing is more likely to be close. For example, large fiscal deficits (between 7 and 11% of GDP) in Bangladesh during the 1980s have been mirrored in sizeable current account deficits. Recent fiscal adjustment through expenditure cutbacks have resulted in a substantial current account improvement. Looking at the relationship in the reverse direction, reductions in the availability of external financing, as for some of the debtor countries, force either fiscal contraction or inflation.

Domestic borrowing.

The final form of finance, available to some developing countries, is issuance of domestic debt. This is usually intermediated by the banking system, although in a few cases, such as Mexico and Brazil, government bonds have been sold directly to the private sector. To be considered nonmonetary debt, borrowing from the banking system must not be financed by central bank rediscounts. While government domestic borrowing is often thought of as a way to avoid both inflation and external crises, it carries its own dangers if used excessively -- a point to which we turn below. By definition, government borrowing reduces the credit which would otherwise be available to the private sector, putting pressure on domestic interest rates.

In countries as diverse as Turkey and Thailand, reliance on domestic debt has indeed brought high real domestic interest rates. In Turkey the real domestic lending rate reached 50 percent in 1987. More moderate domestic borrowing in Thailand led to real lending rates ranging from 15 to 19 percent during the 1982-86 period.

Where interest rates are controlled, domestic borrowing still leads to credit rationing and crowding out of private sector investment. If the economy is well integrated with international capital markets, then government domestic borrowing will tend to push the private sector into borrowing more abroad.

We turn now to debt dynamics, to evaluate the stability of that process.

III. Debt Dynamics.

We have not so far confronted the question of how large a budget deficit might be sustainable in the long run. It is clear that very large deficits cannot continue forever, but it is much easier to say that than to say when deficits become dangerous to macroeconomic stability.

To examine the long-term consequences of running deficits, we use identity (3), which shows the determinants of the change in government debt. It is most useful to concentrate on the ratio of the debt to a measure of the scale of the economy; accordingly we focus on the ratio of government debt to GNP, which we denote b. Debt is now defined to include both the net external and domestic debts. In terms of equation (2), we consolidate foreign and domestic borrowing, and treat changes in foreign reserves as equivalent to net external borrowing.

The change in the debt ratio (b) is equal to the non-interest (or primary) deficit of the total public sector, minus the part that is financed by printing money, plus the current debt ratio (b) times the average real interest rate on the debt minus the growth rate of GNP (this is the last term in (3)):

(3) Change in b = (Primary deficit/GNP) - (Seignorage/GNP)
+ (Real interest rate - growth rate) x b

This equation, which is the key to understanding debt dynamics, has a simple intuitive explanation[9]. The non-interest deficit has to be financed with new debt to the extent that this deficit exceeds the amount of money creation by the central bank. In addition, nominal interest expenditures have to be refinanced with new debt. However, the denominator of the debt ratio is nominal GNP, so the debt ratio will decline with either inflation or real GNP growth in the absence of new borrowing.

The dynamics of debt and the sustainability of deficits are particularly affected by the difference between the real interest rate and the growth rate of GNP. Assume first that the real interest rate on debt exceeds the growth rate. Then debt dynamics are unstable. It is not then possible to run a permanent primary deficit that exceeds the amount of revenue the government can obtain through seignorage. The conclusion deserves emphasis: if the government is running a primary deficit larger than the amount of seignorage it can obtain, and if the real interest rate exceeds the economy's growth rate, the debt to GNP ratio will continue rising without limit. At some point it will be impossible for the

---

[9]This equation can be derived starting from equation (2), recognizing that the sum of domestic and net foreign borrowing is equal to the change in the government debt, and that the government budget deficit is equal to the primary deficit plus interest payments. A very similar equation is useful for understanding external debt dynamics: in that case the dependent equation is the (foreign) debt to exports ratio, the primary deficit on the right hand side of (3) is replaced by the non-interest current account deficit, there is no analog of seignorage, and the growth rate on the right hand side is that of exports.

government to sell its debt, and the process will have to be brought to an end by cutting the budget deficit. The point at which the process has to end depends on the expectations of the public. When the public recognizes the unsustainability of the government's fiscal policy, it will cease buying government debt, and force a change in policy.

The debt dynamics equation (3) has an interesting implication, first pointed out by Sargent and Wallace (1981). Suppose that the government tightens monetary policy by reducing the rate of printing of money and increasing borrowing. The debt increases; either deficits will be higher in future, or the government will have to print more money in future to keep the deficit constant. If future deficits are to be held constant, then the increased printing of money in future will mean more inflation in future. Generally, the expectation of future inflation increases current inflation. And, as Sargent and Wallace show, it is even possible in certain -- though not all -- circumstances that the impact of the expected increase in future inflation outweighs that of the lower rate of money printing today, so that an apparently contractionary monetary policy today will increase current inflation.

We have already discussed maximum sustainable rates of seignorage, and have suggested that governments cannot permanently finance primary deficits much in excess of 2.5% of GNP without expecting inflation to accelerate -- so long as the real interest rate exceeds the growth rate of GNP.

What happens if the real interest rate is less than the growth rate? This is a world where the painful tradeoffs just discussed do not exist. Debt is eroded over time through growth, so primary deficits in excess of seignorage revenue are sustainable. A so-called Ponzi[10] scheme of borrowing to pay interest is always possible. This certainly seemed to be the case in the late seventies, as high inflation rates produced negative ex post real interest rates. There are even some who believe that the real interest rate should normally be below the growth rate. But an economist's instincts are that such a free lunch is not possible, and the instincts are right. While real interest rates can be temporarily below the growth rate, market forces prevent this from happening in the long-term. As more debt piles up, the pressure on bond markets drives up the interest rate.

It might seem that the government could make a Ponzi scheme possible by controlling domestic interest rates. But this is a tax on domestic bond-holders in the amount by which the controlled rate is below the long-run equilibrium rate. Savers respond by taking their savings elsewhere, and the government faces a limit on how much it can borrow. The experiences of countries such as Argentina, Mexico, and Venezuela with interest rate controls and capital flight confirms this limitation. We are back again to the world of tough choices and unforgiving tradeoffs.

---

[10]Charles Ponzi was a Boston resident who in the 1920s made a fortune through a pyramiding scheme, but who then ended up in jail, and was later penniless.

Sustainable deficits.

How large should the deficit be? This is not a question that can be answered without doing careful analysis of the costs and benefits of the government's expenditure programs, and the costs and benefits of taxes. But it should be recognized that if the interest rate exceeds the growth rate, increases in the deficit are equivalent to future taxation, including the inflation tax.

Whether the deficit is sustainable depends on its size, and on the growth rate of the economy. Examining equation (3), a higher growth rate allows the government to obtain more revenue by printing money, and it reduces the last term in the equation. Rapid growth permits a larger deficit.

This argument helps explain why countries such as India, Malaysia, Pakistan, and Thailand where growth was at or above 5% over 1980-86, have been able to run sizeable domestically-financed deficits while inflation has been in the single digits, whereas Argentina and Brazil -- with virtually no growth but with smaller deficits -- have been plagued with triple-digit inflation. This is not to say that public deficits do not matter in high-growth economies, only that they can be bigger, so long as the growth continues.

Whether a given fiscal policy is sustainable is a question that can be answered by doing detailed projections of the future course of the debt-to-GNP ratio. Equation (3) provides the essential analytic tool for doing this; the analysis requires subsidiary assumptions about the demand function for money, the desired inflation rate, the real interest rate, and the

growth rate of the economy. If the analysis shows the debt-to-GNP ratio to be rising continually, then the fiscal policy has to be changed.

It is sometimes argued that a deficit that results from high public investment will be sustainable. However, this argument can easily be overdone. In the first instance, while public infrastructure spending often has a very high return, many low-return or no-return items may also be included in the category of "investment". More important, even if public investment has a high return, it is necessary that the government capture the additional returns from the investment if it is to be self-sustaining. For example, suppose that a project yields the remarkably high real return of 15%, that the marginal tax rate is 20%, and that the government borrows at 7% to finance the project. The government will be receiving only a 3% pecuniary return on the cost of the project in tax revenues, even though its social yield is 15% (assuming that the entire social yield is pecuniary). Thus the investment project still adds to future deficits, despite its high yield -- though to be sure its impact on future deficits is smaller than that of current government spending financed through deficits.

Of course, the fact that a fiscal policy is sustainable does not mean that it is optimal. A fiscal deficit crowds out private investment, and it might well be desirable to reduce the debt-to-GNP ratio in order to crowd in private investment. Similarly it is not optimal to collect the maximum possible amount of revenue from seignorage, but rather a smaller amount corresponding to a lower inflation rate.

Economies can proceed for long periods with large deficits, as the Italian economy has. It helps in these cases if the domestic saving rate is high, so that individuals are willing to absorb relatively large amounts of government debt in their portfolios. (This was true also in the high-growth cases of India, Malaysia, Pakistan and Thailand cited earlier.) But the relentless increase in the debt-to-GNP ratio means that even in the Italian case, fiscal policy will eventually have to change.

IV. Deficits and Inflation.

Our analysis has made it clear that there is no automatic link between budget deficits and inflation. The visitor to high inflation-high deficit economies is often told that the deficit cannot be the cause of inflation because the correlation between them is low. In particular, it often happens that a contractionary policy that starts by raising the controlled prices of public enterprises and subsidized goods, and by devaluing, will both raise the inflation rate and reduce the deficit. In the United States, the high deficit of this decade has been accompanied by a decline in inflation.

Nonetheless, budget deficits do sooner or later tend to create inflation, and countries with very high budget deficits are very likely to find themselves at some point confronted with extremely high rates of inflation. There have been massive budget deficits in all the great hyperinflations, with the inflationary process and the deficit feeding on each other through the Tanzi effect as higher inflation reduces tax revenue, and through declines in seignorage revenue as higher inflation causes a flight from money.

The correlation between the deficit and inflation is low in the early stages of inflations in part for the reason explained above, that programs to reduce deficits are often inflationary. It is low also because the economy adjusts slowly to inflationary pressures. And the correlation may be low for a third reason, because the public in an economy with a high deficit may at different times have different expectations about how the deficit will eventually be closed. For instance, if the public believes at one point that the government will attempt to deal with its fiscal problem through an inflation that erodes the value of the public debt, current inflation -- reflecting the expectation of future inflation -- will rise. If, at a later time, the public believes that nothing short of a major fiscal package reducing the deficit is possible, the expected inflation rate may be reduced and current inflation -- again reflecting the expectation of future inflation -- may fall[11].

Milton Friedman's famous statement that inflation is always and everywhere a monetary phenomenon is correct. However governments do not print money at a rapid rate out of a clear blue sky. They generally print money in order to cover their budget deficits. Rapid money growth is conceivable without an underlying fiscal imbalance. But it is unlikely. Thus rapid inflation is almost always a fiscal phenomenon.

---

[11]This argument is developed by Drazen and Helpman (1986).

V. Concluding Comments.

The macroeconomic analysis that we have outlined is a useful starting point for examining the economics of budget deficits. But it takes more than a single indicator to judge fiscal policy. The microeconomics of fiscal deficits is both crucial in its own right and has an impact on the macroeconomics of deficits. The more efficient are taxes and spending, the higher is the public deficit that can be sustained, since growth will be higher.

Consideration of the macroeconomics of the government budget constraint points to the dangers that arise from excessive budget deficits: inflation, exchange crises, external debt crises, and high real interest rates, with implications for the real exchange rate and the trade account, and for investment. None of the links are automatic, for there are choices in the sources of financing, and lags in the effects of money printing and borrowing on inflation and interest rates.

Nor are moderate budget deficits to be avoided at all costs; small deficits can be financed without creating excessive inflation, exchange crises, or building up debt excessively. If the real interest rate exceeds the growth rate of GNP, any primary deficit smaller than the maximum amount of seignorage revenue the government can obtain is sustainable. Whether any particular path of fiscal policy is sustainable has to be checked through projections of the debt to GNP ratio; a given deficit is more likely to be sustainable the higher the growth rate of output.

As noted earlier, a deficit path is not optimal merely because it is sustainable. Even sustainable deficits may imply levels of private investment and inflation that are inconsistent with the government's overall economic goals. There is no question that large budget deficits pose very real threats to macroeconomic stability, and therefore to economic growth and development.

BIBLIOGRAPHY

Barro, Robert J. (1974). "Are Government Bonds Net Wealth?", Journal of Political Economy 81 (December), 1095-1117

Bernheim, Douglas (1987). "Ricardian Equivalence: An Evaluation of Theory and Evidence, NBER Macroeconomics Annual, Vol. 2, 263-303.

Blejer, Mario I. and Nissan Liviatan (1987). "Fighting Hyperinflation: Stabilization Strategies in Argentina and Israel, 1985-86", IMF Staff Papers 34 (September), 409-38.

Buiter, Willem H. (1988). "Some Thoughts on the Role of Fiscal Policy in Stabilization and Structural Adjustment in Developing Countries," Working Paper No. 2603, NBER (May).

Corbo, Vittorio, Morris Goldstein and Mohsin Khan eds. (1987). Growth Oriented Adjustment Programs. Washington, D.C. IMF/World Bank

Drazen, Allen and Helpman, Elhanan (1986). "Inflationary Consequences of Anticipated Macroeconomic Policies," Working Paper No. 2006, NBER (August).

Easterly, William R. (1989). "Fiscal Adjustment and Deficit Financing During the Debt Crisis," PPR Working Paper Number 138, World Bank, (January).

Fischer, Stanley (1982). "Seignorage and the Case for a National Money", Journal of Political Economy 90, 2 (April), 295-313, reprinted in S. Fischer, Indexing, Inflation, and Economic Policy. MIT Press, 1987.

--------- (1987). "Stopping High Inflation: The Israeli Stabilization Program, 1985-86." AER Papers and Proceedings 77 (May), 275-78.

Gelb, Alan (1988). Oil Windfalls: Blessing or Curse? New York: Oxford University Press.

Ize, Alain, and Guillermo Ortiz (1987). "Fiscal Rigidities, Public Debt, and Capital Flight", IMF Staff Papers 34, 2 (June), 311-32.

Kiguel, Miguel, A, and Nissan Liviatan (1988). "Inflationary Rigidities and Stabilization Policies", PPR Working Paper, Number 4. The World Bank.

Krugman, Paul (1979). "A Model of Balance of Payments Crises", Journal of Money, Credit and Banking 11, 3 (August), 311-325

Sachs, Jeffrey D. ed (1989). Developing Country Debt and the World Economy. University of Chicago Press.

Sargent, Thomas J. and Neil Wallace (1981). "Some Unpleasant Monetarist Arithmetic", Federal Reserve Bank of Minneapolis Quarterly Review (Fall), 1-17.

Tanzi, Vito (1977). "Inflation, Lags in Collection, and the Real Value of Tax Revenue." IMF Staff Papers 24, 154-67.

Tanzi, Vito (1984). "Is There a Limit to the Size of Fiscal Deficits in Developing Countries?", in Bernard P. Herber, ed. Public Finance and Public Debt. Detroit: Wayne State University Press.

Tanzi, Vito (1985). "Fiscal Management and External Debt Problems," in Hassanali Mehran, ed., External Debt Management. Washington, D.C.: IMF.

van Wijnbergen, Sweder (1988). "External Debt, Inflation, and the Public Sector: Towards Fiscal Policy for Sustainable Growth", Washington, D.C. World Bank, processed.

van Wijnbergen, Sweder, Ritu Anand, and Roberto Rocha (1989). "Inflation, External Debt, and Financial Sector Reform: A Quantitative Approach to Consistent Fiscal Policy", World Bank Economic Review, forthcoming.

World Development Report 1988. The World Bank, Oxford University Press.

Appendix 1: Problems of Measurement.

International comparisons of fiscal data are plagued by the great variation of methodology and the lack of comprehensive coverage of the public sector. Deficit definitions change from country to country or even over time in the same country. One country may include aid receipts as revenue, while another treats it as deficit finance. Some countries have data only on the national government, while others cover to varying degrees local governments, state enterprises, and decentralized agencies. In some countries, activities of the central bank or other public financial intermediaries create significant losses, but including their deficits in the overall public sector is difficult because of conceptual problems and lack of reliable data. Social security is consolidated with the public accounts in some countries, but not in others. Many examples can be given of such accounting difficulties.[12]

Even aside from technical accounting problems, there are broader issues of how to define deficits in an economically meaningful way. Many alternative definitions have been proposed to attempt to remove short-term distortions from deficit measures[13]. The most important single correction is to adjust the deficit for the inflation component of interest payments, yielding the inflation-corrected or operational deficit. The correction removes from the deficit the product (inflation rate x stock of debt), thereby including in the operational deficit only the real component of

---

[12]The most comprehensive collection of fiscal data is in the IMF's Government Financial Statistics. World Development Report 1988, p45 describes data sources..

[13]A discussion of alternative measures of the deficit is presented in World Development Report 1988, pp56-57.

interest. The correction can be substantial. For instance, estimates of the fiscal deficit in Mexico for 1987 imply a deficit of over 15% of GDP, but the operational balance shows a surplus of 3%.

Some economists disagree with the use of the operational deficit on the grounds that the government has in fact to find a way of meeting the interest payments, even if they only reflect compensation for inflation. A useful way of thinking of the operational deficit is that it provides an approximate measure of the size of the deficit the government would have to deal with if it succeeded in getting rid of inflation. Thus the fact that there was an operational surplus in Mexico in 1987 meant that there was no underlying fiscal problem that was inconsistent with the government attaining a zero or low inflation equilibrium.

In addition to correcting the deficit for inflation, influences from commodity price fluctuations or domestic output above or below trend are sometimes removed to give the <u>structural deficit</u>.

Deficits can also be underestimated because of controls on interest rates or key prices. For example, negative real interest rates paid on government debt will make the deficit appear lower than if the interest bill were evaluated at the true opportunity cost of capital. An artificially low exchange rate applied to government external debt in a system of multiple exchange rates would similarly suppress the size of the true deficit. To correct for such distortions, public deficits can be evaluated at the long-run equilibrium values of the interest rate, exchange rate, and other key relative prices.

Appendix 2: Bibliographical Note.

Several literature references have been provided in the text. I present here a small sampling of some additional sources relevant to the themes discussed in the lecture. A good summary of the macroeconomics of the financing of government deficits is provided in Buiter (1988) and Van Wijnbergen (1989), with earlier treatments by Tanzi (1984, 1985) also very useful. Empirical analysis of deficit financing is provided in Easterly (1989).

Treatment of the problem of high inflation is contained in Blejer and Liviatan (1987), Fischer (1987), and Kiguel and Liviatan (1988). Ize and Ortiz (1987) discuss the relationship between fiscal deficits and capital flight. A discussion of the link between the external debt crisis and fiscal behavior is contained in many of the papers in Sachs (1989).

The relationship between debt and growth is discussed in many of the papers in Corbo et al (1987). Van Wijnbergen (1988) and Buiter (1988) contain clear presentations of the debt dynamics identity.

The role of public investment in commodity-exporting countries is trenchantly analyzed in Gelb (1988). The Tanzi effect is presented in Tanzi (1977). A good treatment of the role of expectations in macro policy can be found in Drazen and Helpman (1986).

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Miércoles, 5 de abril de 1989

Sesión 5

09:30 - 10:15

Tópico: Finanzas Públicas y Cambios Exógenos: Medición y Análisis de las Causas del Déficit Público en América Latina

Conferencista: Sr. J. Marshall (Consultor, CEPAL)

Lectura Requerida: 1. **Marshall**, Jorge, "Medición y Descomposición del Déficit Público en América Latina", Marzo, 1989.

Medición y Descomposición del Déficit Público en América Latina

por

Jorge Marshall

Consultor
Comisión Económica para América Latina y
el Caribe (CEPAL)

Marzo, 1989

Distr.
RESTRINGIDA

LC/R.745
28 de abril 1989

ORIGINAL: ESPAÑOL

C E P A L

Comisión Económica para América Latina y el Caribe

MEDICION Y DESCOMPOSICION DEL DEFICIT PUBLICO EN AMERICA LATINA*

---

* Este trabajo fue preparado en el marco del Proyecto Regional CEPAL-PNUD de Política Fiscal, por el señor Jorge Marshall, del Instituto Latinoamericano de Doctrina y Estudios Sociales (ILADES), quien contó con la colaboración de los señores Osvaldo Larrañaga y Juan Carlos Lerda. Las opiniones expresadas en este estudio, que no ha sido sometido a revisión editorial, son de la exclusiva responsabilidad del autor y pueden no coincidir con las de la Organización.

89-3-348

CONTENIDOS

		Pág.
I.	INTRODUCCION	1
II.	LA MEDICION DEL DEFICIT PUBLICO	3
	1. El efecto de la inflación	5
	2. Cambios en el valor de los pasivos públicos	8
	3. Implicancias macroeconómicas	11
III.	DESCOMPOSICION DEL DEFICIT PUBLICO	15
	1. Fuentes y usos de fondos del sector público	17
	2. Déficit consolidado del sector público	26
	3. Descomposición del déficit del sector público	29
VI.	RESULTADOS DEL ANALISIS DE DESCOMPOSICION	35
	1. Mediciones del déficit público	35
	2. Determinantes del déficit público	36
	3. El efecto de una devaluación sobre el déficit	38
	4. El déficit de las empresas públicas	41
	REFERENCIAS	43
	ANEXO: ECUACION PARA LA DESCOMPOSICION DEL DEFICIT PUBLICO	44

MEDICION Y DESCOMPOSICION DEL DEFICIT PUBLICO EN AMERICA LATINA

I. INTRODUCCION

El aumento en el déficit del sector público en numerosos países de América Latina se ha convertido en un serio obstáculo para el éxito de los procesos ajuste y estabilización en la región. Este hecho ha suscitado una creciente preocupación por los problemas que encuentra la política fiscal en países que enfrentan simultáneamente restricciones de oferta, de demanda y de divisas en diferentes sectores de la actividad económica. Estas restricciones son el resultado de shocks externos, de la crisis de financiamiento internacional, del ajuste interno y de cambios en la asignación de recursos.

En este contexto, focalizar el análisis de la política fiscal sólo en el déficit observado del sector público puede entregar una visión inadecuada de la interacción entre dicha política y el desempeño de las economías de la región. Por una parte, el déficit público es al mismo tiempo causa y consecuencia del comportamiento de las variables macroeconómicas y, por la otra, este indicador no refleja los cambios en la estructura de los ingresos y gastos del sector público. Estos últimos pueden ser resultado tanto de cambios exógenos a las decisiones de la autoridad económica o producto de ellas. La consideración de estos aspectos puede resultar de gran utilidad en el análisis de

la política fiscal en la región y en el diseño de instrumentos que permitan aumentar la eficiencia de dicha política.

En este trabajo se presenta la metodología y algunos resultados preliminares de una linea de investigación iniciada en la División de Desarrollo Económico de la CEPAL sobre la política fiscal en América Latina. Uno de los objetivos de esta linea de trabajo consiste en identificar los determinates del déficit público durante los años 80. Para ello se ha procedido a cuantificar los efectos de shocks externos, de cambios en el entorno macroeconómico interno y de decisiones de política sobre el déficit del sector público.

Los shocks externos que tienen mayor incidencia en el déficit público son las variaciones en los términos de intercambio, las fluctuaciones en las tasas de interés internacionales y las restricciones en el acceso al financiamiento externo. Por su parte, entre las variables macroeconómicas internas se considera el efecto de la inflación, de las variaciones en el tipo de cambio real, de las fluctuaciones en el producto interno y de los cambios en las tasas de interés domésticas. Por último, el déficit público también está afectado por decisiones de política fiscal activa, orientadas a modificar el nivel de los ingresos y los gastos del sector público.

Los aspectos metodológicos que se presentan en las secciones II y III de este trabajo siguen de cerca el marco analítico-contable desarrollado en Marshall y Schmidt-Hebbel (1989a) y los resultados preliminares de la sección IV sintetizan los estudios de casos de Larrañaga (1988) y Marshall y Schmidt-Hebbel (1989b).

II. LA MEDICION DEL DEFICIT PUBLICO

La idea básica del concepto de déficit público consiste en medir las necesidades de recursos reales que presenta el sector público para cubrir la diferencia entre su inversión bruta y su ahorro. En la medida que la inversión planeada por el sector público supera al ahorro generado por este mismo sector se produce una presión sobre el ahorro del resto de los agentes económicos: sector privado y resto del mundo.

El financiamiento de la discrepancia entre inversión y ahorro público con recursos del sector privado se produce a través de los mercados de activos internos, principalmente de dinero y bonos. El impacto macroeconómico de este financiamiento depende de la combinación de pasivos emitidos por el sector público (dinero versus bonos) y de las características del mercado financiero interno.

La otra fuente de financiamiento del déficit público es el ahorro externo, que se manifiesta a través de la cuenta corriente de la balanza de pagos. Esta fuente tiene importantes consecuencias macroeconómicas sobre el endeudamiento externo y el tipo de cambio real.

Para que la medición del déficit público sea relevante desde el punto de vista económico es necesario que corresponda a una definición amplia del sector público. En ella deben estar incluídos el gobierno general (que incluye el gobierno central, los gobiernos regionales y municipales y las agencias descentralizadas), las empresas públicas y el sector público financiero (compuesto por las instituciones públicas financieras y por el Banco Central). A esta definición se denomina sector público consolidado.

Diferencias en la cobertura del sector público tienden a originar importantes discrepancias en la medición del déficit público. Esta situación se hace crítica cuando los gobiernos regionales tienen autonomía en sus presupuestos, las empresas

públicas presentan déficit de significación o el Banco Central realiza operaciones cuasi fiscales en las que también incurre en pérdidas. En todas estas situaciones sólo una medición del déficit público a partir de una definición amplia de este sector arrojará resultados relevantes para el análisis macroeconómico.

Aún considerando una cobertura amplia, existen varias definiciones del déficit público. Para analizar las diferencias entre tales definiciones es conveniente utilizar un esquema de contabilidad simplificada, donde el déficit de este sector puede ser financiado a través de la emisión o colocación de tres pasivos: bonos públicos colocados internamente (B), base monetaria (H) y bonos colocados en el extranjero o deuda externa (F, medida en unidades de moneda extranjera).

Por tanto, una primera opción consiste en definir el déficit público nominal (NFSP) como la identidad entre la acumulación neta de pasivos requerida para financiar la diferencia entre los gastos e ingresos públicos consolidados nominales:

$$(1) \qquad NFSP = \dot{B} + \dot{H} + E\,\dot{F} = DNFSP + i\,B + E\,i^{*}\,F$$

donde los puntos sobre las variables indican la variación del pasivo correspondiente. A su vez, i e i* corresponden a las tasas de interés nominales internas y externas, respectivamente; DNFSP refleja el déficit público no financiero, y E representa el tipo de cambio nominal. La identidad (1) se puede rescribir en términos reales dividiéndola por P, el índice de precios relevante, para obtener el déficit público convencional como

sigue[1]:

$$(2) \qquad nfsp = \frac{\dot{B}}{P} + \frac{\dot{H}}{P} + \frac{E\,\dot{F}}{P} = dnfsp + i\,b + i^*\,f$$

donde las letras minúsculas indican las magnitudes nominales correspondientes deflactadas por el índice de precios (con excepción de la deuda externa, expresada en unidades domésticas del año base: $f = E\,F\,/\,P$).

La definición convencional del déficit público, expresada a través de la identidad (2), tiene dos problemas importantes: en primer lugar, sobrestima el déficit debido al efecto de la inflación sobre la tasa de interés nominal; y en segundo lugar, no correponde a la noción de cambio en la posición deudora neta del sector público. Esto último porque no considera los cambios en el valor de los pasivos del sector público: precios de los bonos públicos (internos y externos), tipo de cambio real y valor real de la base monetaria. Variaciones en estos precios afectan la deuda del sector público, a pesar de no tener incidencia directa en los flujos de ingreso y gasto presentes. Estos últimos flujos son los que se consideran en la definición convencional de la expresión (2). En el resto de esta sección se analizan estos dos problemas y se discuten sus implicancias macroeconómicas.

1. <u>El efecto de la inflación</u>

La inflación tiene dos efectos importantes en los gastos financieros del sector público: en primer lugar, reduce el valor real de la deuda acumulada por este sector y, en segundo lugar, aumenta el gasto financiero que realiza el sector público. En general estos dos efectos se compensan mutuamente, tanto en el

---

[1]Normalmente, el déficit convencional del sector público se presenta como porcentaje del PIB. Ello equivale a dividir la identidad (1) por el PIB nominal.

caso de la deuda indizada como no indizada[2]. En el caso de la deuda indizada, el aumento en el gasto financiero opera en la forma de corrección monetaria sobre el valor de los bonos públicos. Cuando la deuda es no indizada se produce un aumento en los gastos financieros debido al efecto de la inflación sobre la tasa de interés nominal.

El efecto de la inflación sobre la definición convencional del déficit depende de la estructura de la deuda pública y de los criterios para medir los gastos financieros durante un período determinado. Por ejemplo, si la deuda es indizada y la corrección monetaria se incluye entre los gastos del sector público, un aumento de la tasa de inflación generará un incremento en el déficit convencional. Ello, a pesar de que el mayor gasto tiene como contraparte una reducción en el valor real de los pasivos públicos acumulados. Si la deuda es no indizada, los gastos financieros reflejan cualquier cambio en la tasa de inflación. Por último, si la deuda pública es indizada y los gastos financieros contienen sólo los intereses reales, entonces la tasa de inflación no afecta al déficit público.

Es importante notar que el efecto de la inflación internacional tiene las mismas características que la inflación interna. Vale decir, el servicio de la deuda pública externa opera de la misma forma que el servicio la deuda no indizada interna.

En síntesis, para corregir el efecto de la inflación, tanto interna como externa, en la medición convencional del déficit público se requiere seguir un criterio de consistencia económica en la contabilidad de los gastos financieros. Dicho criterio está contenido en el concepto de déficit operacional, definido como la medición convencional (nfsp) menos el componente de corrección inflacionaria en el servicio de la deuda pública.

---

[2]Supondremos que la tasa de interés nominal refleja correctamente la tasa de inflación, lo mismo que el índice utilizado para hacer la corrección monetaria en el caso de la deuda indizada.

A partir del déficit operacional se puede obtener el déficit no financiero o déficit primario, que descuenta de aquél el pago de intereses reales de la deuda pública.

Para obtener una expresión del déficit operacional se pueden descomponer la variación nominal de los pasivos de la identidad (2) entre la variación real y los cambios en el nivel de precios y en el tipo de cambio. Por ejemplo, la colocación real de bonos (expresada en unidades de moneda doméstica del año base) es la suma de la acumulación del valor real del pasivo y la erosión en su valor real causada por la inflación interna. Lo mismo sucede la base monetaria. A su vez, separando el efecto de la inflación internacional sobre el cambio en el valor de la deuda externa en dólares constantes, $-\pi^* f$, y sobre el servicio de la deuda, $\pi^* f$, el déficit público convencional se puede escribir como:

$$(3)\quad nfsp = [\dot{b} + \dot{h} + \dot{f} - \pi^* f] + [\pi b + \pi^* f] + [\pi h - f (\hat{E} - \pi)]$$

donde π y π^* representan la tasa de inflación interna y externa respectivamente. Entre los términos del lado derecho de la expresión (3), el segundo corchete corresponde a una ganancia de capital (erosión en el valor de un pasivo) que está exactamente compensada por un gasto financiero (corrección monetaria o componente inflacionario de la tasa de interés nominal). De allí que en una definición consistente se descuenta dicho corchete.

Es decir, para relacionar la expresión (3) con los conceptos de déficit operacional (dosp) y déficit no financiero (dnfsp), introducidos arriba, se excluye aquella parte del servicio de la deuda pública (interna y externa) que corresponde a la corrección por la tasa de inflación. De este modo, el concepto de déficit operacional se define como:

$$(4)\quad dosp = nfsp - b\pi - f\pi^* = [\dot{b} + \dot{h} + \dot{f} - f\pi^*] + [\pi h - f(\hat{E} - \pi)]$$

Como se ha señalado, el efecto de la inflación sobre la medición convencional del déficit depende tanto de la estructura de la deuda pública como de los criterios contables que se aplican a la corrección monetaria. Cuando la deuda pública no es indizada se contabiliza el pago de intereses nominales como gasto, originando de esta forma la distorsión en la medición convencional. Una situación diferente se presenta cuando la deuda pública es indizada. Allí se divide el servicio real de la deuda de la corrección monetaria. Si ambas partidas se contabilizan como gasto, la medición convencional del déficit llega al mismo resultado que en el caso de deuda pública no indizada. En cambio, si sólo se considera gasto corriente al servicio real de la deuda, no se produce divergencia entre las definiciones convencional y operacional del déficit.

Los países de América Latina que tienen mayor divergencia entre la definición convencional y operacional del déficit son Brasil y México. El primero tiene la mayor parte de su deuda pública interna indizada, pero incorpora la corrección monetaria entre los gastos del sector público. En cambio el segundo tiene su deuda pública interna no indizada.

Dado que la cuenta de corrección monetaria no tiene implicancias sobre la caja fiscal, en la mayoría de los países no se incorpora al presupuesto. Este es el caso de Argentina y Chile. En estos casos no existe divergencia entre las definiciones convencionales y operacionales del déficit público.

2. Cambios en el valor de los pasivos públicos

Existen dos criterios para llevar la contabilidad del sector público: uno, basado en los flujos que comprometen el presupuesto, y el otro, en los cambios de la posición patrimonial

neta del sector público. En el primer caso se define el déficit como la diferencia entre los flujos de gasto e ingreso que comprometen el presupuesto durante un período determinado (base presupuestal), aunque no signifiquen un flujo efectivo de caja dentro dicho período[3]. Este criterio da lugar tanto al concepto de déficit convencional como operacional, definidos anteriormente. De ellos, sólo la definición operacional es económicamente consistente.

Una medida distinta del déficit es la diferencia entre la acumulación de activos y pasivos del sector público, que refleja flujos devengados pero no necesariamente realizados, y cuya contrapartida es el cambio en la posición deudora neta del sector público. Este criterio considera el cambio el el valor de los pasivos públicos y por tanto, más que una medida del déficit público propiamente tal, refleja el cambio en la situación patrimonial neta del sector público, derivada directamente de su hoja de balance.

Existen diversas razones que explican las diferencias que se observan entre el déficit operacional (la medida consistente de los flujos presupuestados) y el cambio en la posición patrimonial neta del sector público (la medida de stocks devengados). Las causas de discrepancia son las ganancias o pérdidas de capital que resultan de variaciones en los precios de los activos o pasivos del sector público, y que no han sido realizadas a través de la compra o venta de dichos activos o pasivos. Vale decir, cambios en los precios reales de los bonos públicos (internos y externos), modificaciones en el tipo de cambio real y variaciones en el valor real de la base monetaria

---

[3]La diferencia entre el criterio de caja y el de base presupuestal se encuentra en la contabilización de los ingresos y gastos comprometidos, cuya contrapartida es la variación del saldo en las cuentas de deuda flotante. Este es el caso, por ejemplo, de las adquisiciones de insumos o de bienes de capital por parte del sector público atrasando éste su pago, o los atrasos del sector privado en el pago de sus obligaciones tributarias.

En lo que sigue ilustraremos las diferencias entre la definición operacional del déficit (expresión 4) y la medición a partir del criterio de variación del patrimonio neto. Para este efecto se supone que la única causa de discrepancia entre ambos criterios está constituida por ganancias o pérdidas de capital (gc) derivadas de la erosión de la base monetaria, que constituye el impuesto inflación, y el negativo del efecto de la devaluación real sobre la deuda pública externa. Es decir, las ganancias de capital se definen como:

$$(5) \qquad gc = \pi h - f(\hat{E} - \pi)$$

Se puede observar que la expresión (5) es igual al terecer paréntesis de corchete del lado derecho de la definición convencional del déficit real (expresión 3) y al segundo paréntesis de corchete en la definición de déficit operacional real en (4). Pues bien, al restar del déficit operacional real las ganancias de capital (ecuación 5), obtenemos el cambio en la posición deudora neta real del sector público (pnsp), dado por la acumulación de deuda pública real total:

$$(6) \qquad pnsp = dosp - gc = [\dot{b} + \dot{h} + \dot{f} - f\pi^*]$$

desde el punto de vista de su origen, esta definición del déficit se puede escribir como:

$$(7) \qquad pnsp = dnfsp + (i-\pi)b + (i-\pi^*)f + f(\hat{E} - \pi) - \pi h$$

Por lo tanto el cambio en la posición deudora neta real del sector público corresponde a la suma de cinco componentes: el déficit no financiero real, el déficit financiero real interno, el déficit financiero real externo, el cambio en la valor de la deuda externa y el negativo del impuesto inflación.

3. Implicancias macroeconómicas

En las secciones anteriores se han presentado tres definiciones del déficit del sector público. Dos de ellas -el déficit convencional y el déficit operacional- se obtienen del criterio de base presupuestal, en cambio la tercera -la variación patrimonial neta- es consistente con la hoja de balance del sector público. Estos dos criterios responden a objetivos diferentes. El primero enfatiza las transferencias entre el sector público y el sector privado (interno y externo) derivadas de colocación neta de pasivos. El segundo incluye los cambios en los precios de los activos y pasivos del sector público.

Desde el punto de vista macroeconómico ambos criterios pueden ser relevantes, sólo que el primero es consistente con un cuadro de flujos de ahorro e inversión entre los distintos agentes económicos: sector público, sector privado y resto del mundo; mientras el segundo se aproxima a un esquema de hojas de balance del patrimonio neto de los mismos agentes. Sin embargo, en una situación de restricción externa e inestabilidad interna, la variación en la posición deudora neta del sector público (pnsp) no refleja adecuadamente los cambios de la política fiscal. Por ello, en el caso de América Latina es necesario utilizar los conceptos del déficit que emanan del criterio de base presupuestal.

Aún así tenemos dos definiciones para el déficit: convencional y operacional. Para analizar las implicancias macroeconómicas de cada una de estas definiciones es necesario distinguir, por una parte, el efecto contable de la inflación sobre la definición convencional del déficit y, por la otra, su efecto sobre el comportamiento del sector privado. Se trata de dos fenómenos independientes. El primer efecto es netamente contable, mientras que el segundo tiene implicancias

macroeconómicas directas[4].

Desde el punto de vista del sector privado un aumento en la tasa de inflación significa que aumentan sus ingresos financieros en la misma proporción en que se reduce el valor de sus activos (bonos públicos). La pregunta central es entonces ¿qué sucede con la demanda por bonos públicos ante el aumento de la tasa de inflación? Las respuestas pueden ser muy diferentes: una primera opción es que el aumento en la tasa de inflación genere una reducción en la demanda por saldos reales, la que a su vez induce un aumento en la demanda por bonos públicos. Una segunda posibilidad es que el aumento en la tasa de inflación afecte las expectativas sobre la calidad (precio) de los bonos públicos. En este caso, una elevación de la tasa de inflación puede conducir a una caída en la demanda por bonos públicos. Una tercera opción es la existencia de ilusión monetaria por parte del sector privado. Ello significa que el aumento en sus ingresos financieros, como resultado del alza en la tasa de inflación, es erróneamente interpretado -por parte del sector privado- como un aumento de riqueza, destinando una parte de él al consumo presente. Por último, también es posible que la demanda por bonos públicos se mantenga constante luego de la variación en la tasa de inflación.

Las alternativas señaladas sugieren que es necesario separar la discusión sobre cuál es la medida adecuada del déficit de la reacción del sector privado. Desde este punto de vista, la única definición consistente es la del déficit operacional. Adoptar este enfoque significa trasladar la atención del efecto de la inflación desde el déficit a la demanda real de bonos públicos por parte del sector privado.

Por ejemplo, una reducción en la demanda privada de bonos del sector público puede tener varios efectos: en primer lugar,

---

[4]La literatura sobre el efecto de la inflación sobre el déficit ha tendido ha considerar ambos efectos como parte de un mismo fenómeno. Ver, por ejemplo, Tanzi, Blejer y Teijeiro (1987).

puede conducir a un aumento en la tasa de interés real si se desea mantener los niveles de financiamiento del déficit con bonos públicos. En segundo lugar, la reducción en la demanda por bonos públicos puede significar que existe un restricción en el financiamiento a través de bonos. Ello lleva a buscar otras fuentes de financiamiento, particularmente la emisión de dinero. Por último, la reducción en la demanda de bonos públicos también puede conducir a una reducción en el déficit no financiero o déficit primario (dnfsp). Este último caso equivale a definir una restricción exógena de financiamiento global para el sector público. En la medida que el financiamiento disponible se reduce, también lo hace el déficit no financiero. La autoridad económica puede utilizar diferentes variables para realizar el ajuste entre el déficit y el financiamiento disponible. Entre ellas tiene especial importancia la reducción en la inversión pública. Las implicancias macroeconómicas de este escenario son analizadas en Eyzaguirre (1989). El principal resultado de este enfoque es que un aumento en la restricción fiscal (reducción en la demanda por bonos públicos) conduce a una caída en la demanda agregada más que a un aumento en la tasa de inflación.

Un caso enteramente diferente se presenta cuando la inflación no afecta la demanda por bonos públicos. La independencia entre inflación y déficit público equivale a que el sector privado (doméstico y externo) define su demanda por bonos públicos en términos reales e independiente de la tasa de inflación. Además, ambos sectores mantienen la cantidad deseada de bonos públicos.

Si el perceptor de los intereses pagados mantiene su demanda real de bonos públicos, reinvierte la parte de sus ingresos financieros que corresponde a la corrección por la erosión en el valor de sus bonos. Luego, la deuda neta del sector público no cambia de valor cuando se mide a precios constantes. Ello, a pesar que el sector público ha cancelado al sector privado el monto correspondiente a la corrección por la inflación como pago de intereses.

De acuerdo al estudio de Tanzi, Blejer y Teijeiro (1987), la hipótesis que el sector privado acepta aumentar sus tenencias nominales de bonos públicos en la misma medida que la inflación reduce su valor real se encuentra respaldada por la evidencia empírica, que muestra ausencia de correlación entre la definición convencional del déficit y el saldo en cuenta corriente de la balanza de pagos en países con alta inflación y elevado déficit público.

Por otro lado, la inflación también puede afectar al déficit no financiero a través del rezago en la racaudación tributaria (efecto Tanzi-Olivera). Aún cuando los sistemas de impuestos se encuentran debidamente indizados existen rezagos entre el devengamiento y el pago del impuesto. Este rezago, que puede alcanzar un promedio de 20 a 30 días, tiene un efecto importante en países con altas tasas de inflación.

Nuevamente es posible plantear las alternativas de financiamiento que tiene la autoridad fiscal para cubrir el aumento en el déficit no financiero. Ante una restricción en el crédito externo y en la demanda de bonos públicos, es posible recurrir al aumento en la base monetaria. Un escenario alternativo consiste en ajustar el nivel de gasto.

III. DESCOMPOSICION DEL DEFICIT PUBLICO

La descomposición del déficit del sector público constituye una herramienta para el análisis y el diseño de la política fiscal. Los resultados de la descomposición permiten identificar tanto los determinantes del déficit público como de otras variables que miden el desempeño del sector público. Por ejemplo, la metodología de descomposición puede ser utilizada para el estudio de las empresas públicas, de los programas de gasto del gobierno general o de los ingresos tributarios.

En la descomposición del déficit público es necesario que los flujos de fuentes y usos comprendan los distintos subsectores que participan de la política fiscal. En el caso de América Latina ello comprende al gobierno general, a las empresas públicas y al sector público financiero. En la mayoría de los casos éste último está representado, principalmente, por las operaciones cuasi fiscales del Banco Central.

Los flujos de fuentes y usos de fondos del sector público están afectados por tres grupos de variables: las que se determinan en los mercados externos, el entorno macroeconómico interno y la medidas de política fiscal activa. Entre las variables externas al país se encuentran los precios de las exportaciones e importaciones, la tasa de interés y el acceso del sector público a los mercados internacionales de crédito. Las principales variables macroeconómicas internas que afectan el presupuesto público son la tasa de inflación, el nivel de actividad, el tipo de cambio y la tasa de interés doméstica. Por último, las variables de la política fiscal activa incluyen la política tributaria, las tarifas de las empresas públicas y las políticas de gasto.

De este modo, para comprender la evolución del déficit público en los diferentes países de la región es importante determinar el efecto que sobre este indicador tienen los cambios

en el entorno externo e interno. La medición de tales efectos y la identificación de las partidas de ingresos y gastos que resultan afectadas por tales cambios tiene evidente importancia para el análisis y el diseño de la política fiscal activa. Esta última debe enfrentar simultaneamente los efectos de los cambios en las variables exógenas sobre el déficit y los objetivos propios de la política fiscal en el proceso de ajuste y estabilización de la economías de la región.

Una de las características de las economías de la región en los años 80 es la presencia simultánea de restricciones de demanda, de oferta y de divisas en la determinación de precios y producto en diferentes sectores de la economía. Ello significa que no sólo el nivel del déficit público, sino también la estructura de los gastos e ingresos del sector público tiene enorme importancia en el efecto de la política fiscal. De allí surge la ventaja de contar con una herramienta analítica que permite descomponer las distintas partidas de fuentes y usos de fondos del sector público según sus múltiples determinantes.

El marco analítico-contable que se presenta en esta sección sintetiza el modelo desarrollado en Marshall y Schmidt-Hebbel (1989a) e introduce algunas extensiones derivadas de los estudios de casos. Las principales innovaciones que se introducen en este trabajo son: (i) la simplificación de los cuadros de fuentes y usos de fondos del sector público con el propósito de resaltar el análisis de descomposición; (ii) la descomposición explícita del déficit de las empresas públicas; (iii) la focalización en las operaciones cuasi fiscales del Banco Central en sustitución de la inclusión del conjunto del sector público financiero.

Luego de la presentación de los flujos de fuentes y usos de fondos para cada subsector se obtiene una medida del déficit público consolidado. Una vez identificados los determinantes económicos de este déficit se define el procedimiento para su descomposición. En este proceso se distingue entre los tres subsectores considerados en el modelo.

1. Fuentes y usos de fondos del sector público

La descomposición del déficit del sector público se realiza a partir de los cuadros de fuentes y usos de fondos de los distintos subsectores que forman este sector[5]. Estos últimos son: el gobierno general, las empresas públicas y el sector público no financiero. En este trabajo se considera sólo al Banco Central dentro de este último subsector. La agregación de todas las instituciones en estos tres subsectores, y la consolidación los flujos internos, define las fuentes y usos de fondos del sector público consolidado.

A continuación se presentan las identidades simplificadas se las fuentes y usos de fondos de los distintos subsectores públicos. En el caso del Banco Central se consideran sólo aquellas operaciones de carácter cuasi fiscal.

Gobierno General

Las fuentes y usos de fondos del gobierno general se presentan en el cuadro 1. La suma de ambas columnas de este cuadro constituye la identidad presupuestaria del gobierno general.

La principal fuente de fondos del gobierno general es la recaudación tributaria. Los ingresos corrientes tributarios del gobierno general corresponden a los impuestos directos, indirectos internos, de comercio exterior y las contribuciones de seguridad social. Otros tributos que pueden constituir una fuente importante de los ingresos corrientes del gobierno general son los impuestos municipales, a la propiedad y bienes raíces. Ellos se pueden incorporar explícitamente entre las fuentes de fondos o incluir como parte de la recaudación de alguno de los impuestos ya especificados en el cuadro 1. Por su parte, las contribuciones de seguridad social incluyen sólo los

---

[5]Este enfoque considera sólo los flujos de fondos y no incorpora los cambios en la valorización de los activos y pasivos públicos acumulados.

ingresos del sistema estatal. Ello no excluye la presencia de un sistema de seguridad social privado.

La segunda fuente de ingresos del gobierno general consiste en las transferencias que recibe desde las empresas públicas y las utilidades distribuídas por este último sector.

Los ingresos corrientes no tributarios del gobierno general incluyen los ingresos financieros provenientes de los depósitos del gobierno en las instituciones financieras públicas y en los bancos privados.

Consistente con la hoja de balance, tres son los pasivos cuyo aumento constituyen fuentes tradicionales de financiamiento del gobierno general: la emisión de bonos públicos, el crédito interno del Banco Central al gobierno y el crédito externo al gobierno.

Además, existen otras fuentes, "no tradicionales", de fondos, correspondientes a las privatizaciones o enajenaciones de acciones de las empresas públicas e instituciones financieras estatales. Estas acciones pueden ser adquiridas por el sector privado nacional o por el extranjero. En este último caso se produce un ingreso de fondos en moneda extranjera. Obviamente una compra de acciones del gobierno general al sector privado o externo, voluntaria u obligatoria, constituye un uso de fondos del gobierno, implicando un cambio de signo de las partidas correspondientes[6].

El gasto operacional del gobierno general corresponde a la planilla de remuneraciones de los empleados de este sector, al gasto en bienes corrientes, a las transferencias directas al sector privado y a los pagos de beneficios de seguridad social a las personas.

El gasto corriente financiero se origina por la deuda interna y externa que mantiene el gobierno general. En general,

---

[6]Como se indica más adelante, en la cantabilidad del sector público los ingresos por privatizaciones no forman, normalmente, parte del financiamiento del déficit. Ello he sido denominado por Marfán (1986) como un "maquillaje contable".

la contabilidad de los gastos financieros se realiza en términos netos de la renegociación de pagos con el exterior.

Los gastos de capital están compuestos por la inversión real y por la inversión financiera. La primera corresponde a la adquisición de bienes de capital de cada uno de los sectores de actividad (exportables, importables y no transables) por parte del gobierno general. Por su parte, la inversión financiera consiste en la concesión neta de préstamos o trasferencias de capital vinculadas a las actividades del sector público.

Cuadro 1

FUENTES Y USOS DE FONDOS DEL GOBIERNO GENERAL

FUENTES	USOS
I. INGRESOS TRIBUTARIOS	I. GASTOS CORRIENTES
Impuestos directos	Remuneraciones
Impuestos indirectos	Compra de bienes
Impuestos al com. exter.	Transf. privadas
Contribuc. seg. social	Benef. seg. social
	Otros gastos corrientes
II. TRANSFERENCIAS DE EMP. PUBL.	
	II. GASTOS FINANCIEROS
Transferencia de emp.publ.	
	Serv. deuda interna
III. OTROS ING. CORRIENTES	Serv. deuda externa
Otros ingresos corrientes	III. GASTOS DE CAPITAL
IV. INGRESOS DE CAPITAL	Inversión real
	Inversión financiera
Ingresos de capital	
V. FINANCIAMIENTO	
Emisión de bonos	
Crédito externo	
Venta acciones al SP	
Venta acciones al ext.	
Crédito del Bco. Central	

Empresas Públicas

El segundo subsector de importancia en el análisis del déficit público está formado por las empresas públicas. El cuadro 2 presenta una síntesis de las fuentes y usos de fondos de este subsector.

En el análisis de las empresas públicas es conveniente distinguir entre los diferentes sectores de actividad. Por las características del proceso de descomposición es útil considerar las empresas productoras de bienes exportables, importables, no transables y de servicios públicos.

Los ingresos operacionales de las empresas públicas están constituídas por sus ventas brutas. Los ingresos no operacionales son los intereses recibidos por concepto de depósitos bancarios o ingresos de capital por la devolución de préstamos diferentes a los de financiamiento.

Entre los usos de fondos de las empresas públicas se encuentran los gastos operacionales (remuneraciones, contribuciones de seguridad social, e impuestos indirectos). Luego están los gastos financieros correspondientes al servicio de la deuda interna y externa. Finalmente se encuentran los gastos de capital, que incluyen la inversión real y la inversión financiera.

La diferencia entre los ingresos y egresos constitutye el resultado del sector de empresas públicas que se puede trasferir al gobierno general o utilizar para alterar los niveles de deuda (interna y externa) de este sector.

Cuadro 2

FUENTES Y USOS DE FONDOS DE LAS EMPRESAS PUBLICAS

FUENTES	USOS
I. INGRESOS OPERACIONALES	I. GASTOS OPERACIONALES
Ventas brutas	Remuneraciones Compra de bienes Impuestos indirectos
II. INGRESOS NO OPERACIONALES	
Otros ing. corrientes Ingresos de capital	II. GASTOS FINANCIEROS
	Serv. deuda interna Serv. deuda externa
III. TRANSFERENCIAS DEL GOBIERNO	
IV. FINANCIAMIENTO	III. GASTOS DE CAPITAL
Crédito interno Crédito externo	Inversión real Inversión financiera

Banco Central

El aumento de las operaciones cuasi fiscales en la mayoría de los países de América Latina es una de las características más importantes de la política fiscal en los años 80. Este hecho se refleja en operaciones que, excediendo al ámbito propio de la política monetaria, no se encuentran integradas al déficit del gobierno general.

El Banco Central es a menudo encargado de implementar operaciones que caen dentro de las funciones que desarrollan las agencias del gobierno general. Estas son operaciones cuasi fiscales que consisten, por una parte, en la captación de

recursos por parte del Banco Central a través del señoriaje[7], de impuestos implícitos al sistema financiero y de endeudamiento neto; y por la otra, de trasferencias al sector privado en la forma de subsidios en las tasas de interés, operaciones de cambio a tasas preferenciales, adquisición de cartera con alto riesgo de incobrabilidad y operaciones de rescate de instituciones financieras.

En general, el aumento de las operaciones cuasi fiscales se produjo cuando el sistema financiero de varios países de la región enfrentó problemas de liquidez y de solvencia. Ello, como consecuencia de la transmisión de los shocks externos a la economía interna.

Para analizar la naturaleza de las operaciones cuasi fiscales resulta conveniente hacer una presentación simplificada de la hoja de balance del Banco Central. Allí se pueden distinguir los siguientes activos y pasivos:

Cuadro 3

BALANCE DEL BANCO CENTRAL

ACTIVOS		PASIVOS	
Crédito al gobierno	CIG	Base monetaria	H
Crédito privado			
- bancos	CIBPR		
- empresas	CIEPR		
Activos externos netos	CBC*		

Un rasgo central en la hoja de balance del Banco Central es

[7]El concepto de señoriaje utilizado en este trabajo incluye el impuesto inflación y el aumento real de la base monetaria.

su monopolio en la emisión de un pasivo que no devenga intereses nominales: la base monetaria. Esta es la fuente a través de la cual la autoridad monetaria recauda el señoriaje.

Por ejemplo, si el total de la emisión o base monetaria (H) es colocado en forma de crédito privado (CIBPR y CIEPR) a una tasa de interés ic, los ingresos del Banco Central serán iguales a i_c H, monto que corresponde a la recaudación por el señoriaje.

Un caso más frecuente en América Latina consiste en la emisión monetaria orientada a financiar al gobierno general (CIG). Esta operación es normalmente acompañada con una tasa de interés nula, lo que permite trasferir el señoriaje al fisco. Al no servir este crédito, el fisco se apropia directamente del excedente potencial del Banco Central.

Una situación más compleja se presenta cuando el Banco Central y el gobierno general comparten la recaudación por concepto de señoriaje. Suponiendo que los activos internacionales netos son nulos (CBC* = 0), los ingresos financieros del Banco Central se pueden escribir como

$$\text{(8)} \quad \text{Ingresos financieros} = i_g \, CIG + i_c \, CIBPR + i_c \, CIEPR$$

donde i_g e i_c son las tasas de interés correspondientes a los créditos al gobierno y al sector privado, respectivamente. A su vez, de acuerdo a la hoja de balance se tiene que

$$\text{(9)} \quad CIG + CIBPR + CIEPR = H$$

de modo que al imputar la tasa de interés de mercado (i_c) al crédito del gobierno, el ingreso financiero (potencial) del Banco Central es igual a i_c H. Este monto corresponde a la recaudación del señoriaje. A su vez, en el caso en que la base monetaria sólo financia crédito al gobierno se tiene que CIG = H. Si a ello se agrega que el interés que paga el gobierno es nulo, entonces el señoriaje es enteramente trasferido al gobierno y los ingresos financieros del Banco Central son nulos.

El Banco Central puede recurrir a diversas políticas para aumentar sus ingresos financieros. En la hoja de balance anterior se puede observar que la base monetaria está formada por el circulante más las reservas del sistema bancario. Un aumento en los ingresos del Banco Central se logra cuando éste capta encajes bancarios cancelando una tasa de interés inferior a la tasa de colocación de dichos fondos. Esta fuente constituye un impuesto sobre el sistema financiero interno.

El total de recursos que capta el Banco Central a través de los mecanismos señalados pueden ser canalizados tanto al sector privado como al gobierno. En la medida que cualquier excedente financiero del Banco Central se transfiere al gobierno, el concepto de déficit cuasi fiscal pierde relevancia. Esta situación se modifica cuando el Banco Central genera utilidades o pérdidas en sus operaciones financieras. En este caso existe un saldo cuasi fiscal que debe ser agregado al déficit del gobierno general para el análisis de la política fiscal. En otras palabras, el déficit cuasi fiscal se define como la diferencia entre los ingresos y los gastos del Banco Central que no son trasferidos al gobierno general. Este déficit se puede separar en los siguientes componentes:

(a) recaudación del señoriaje que mantiene el Banco Central. Este componente corresponde a la diferencia entre la recaudación total del señoriaje [i_c H] y aquella parte que es transferida en forma implícita al fisco [i_c CIG].

(b) subsidios a la tasa de interés. Este componente se produce cuando el Banco Central realiza operaciones de crédito y depósito con el sector privado fijando una tasa de interés diferente al costo de oportunidad de los fondos.

La experiencia de los países de América Latina indica que el Banco Central entrega subsidios en los créditos que otorga en determinadas operaciones y también aplica impuestos cuando remunera los depósitos de los bancos privados (encajes legales y técnicos) con una tasa menor que el costo de oportunidad de tales fondos. Este último incluye los depósitos forzados por el Banco

Central con el objetivo de financiar el déficit público[8].

(c) subsidios en operaciones de cambio. En la mayoría de los países de la región el acceso al mercado cambiario se encuentra limitado. A su vez, dentro de dicho mercado existen operaciones que se realizan con distintos tipos de cambio. Este hecho constituye una fuente importante de déficit cuasi fiscal.

(d) pérdidas por incobrabilidad de los créditos del Banco Central al sector privado o por rescates financieros. Con la crisis de liquidez y solvencia en los mercados financieros, el Banco Central ha asumido compromisos por activos de los bancos privados y públicos que tienen un elevado riesgo de incobrabilidad. El reconocimiento de pérdidas efectivas o eventuales por este concepto constituye otra fuente de operaciones cuasifiscales. Cuando no se trata de pérdidas efectivas, estas operaciones son de difícil medición.

La diferencia entre los ingresos y egresos señalados constituye el saldo cuasi fiscal del Banco Central. Si este saldo es positivo debe imputarse como un ingreso del sector público consolidado, y si es negativo constituye un egreso.

En diversos trabajos recientes se ha tendido a identificar las pérdidas del Banco Central con el déficit cuasi fiscal[9]. En ausencia de cambios en los precios de activos y pasivos existe una equivalencia entre ambos conceptos. Sin embargo, por la naturaleza de su contabilidad, las pérdidas del Banco Central incluyen los cambios en el valor de los activos y pasivos. Ello es importante en el caso de América Latina, donde los pasivos en moneda extranjera del Banco Central superan a los activos en dicha moneda. De allí que una devaluación genera una pérdida para el Banco Central, a pesar de que no se han producido operaciones cuasi fiscales.

---

[8]En la medida que el Banco Central cancela una tasa de interés menor que la del mercado en los encajes y depósitos de los bancos comerciales, la tasa activa de colocación se eleva.

[9]Ver Barandiaran (1988) y Robinson y Stella (1987).

En el análisis de las operaciones cuasi fiscales se deben tener presente las restricciones de información que existen en la mayoría de los países. Lo que sí resulta indispensable es identificar las principales operaciones cuasi fiscales que realiza el Banco Central. En particular, los subsidios en la tasa de interés y en el servicio de la deuda pública externa. Estos flujos serán luego agregados directamente al cuadro de fuentes y usos del sector público consolidado.

2. Déficit consolidado del sector público

A partir de los cuadros de fuentes y uso de fondos de cada conjunto de instituciones públicas se puede proceder a su consolidación. Ello consiste en agregar las diferentes restricciones presupuestarias, restando los flujos entre los subsectores públicos.

Reemplazando el resultado de las empresas públicas y el saldo cuasifiscal en el cuadro de fuentes y usos de gobierno general se obtiene la siguiente identidad entre las fuentes de financiamiento y el déficit consolidado del sector público. Los flujos de ingreso y gasto del sector público consolidado aparecen en el cuadro 4 y se resumen en la ecuación (10).

$$(10) \quad \Delta B^G + \Delta CI^{EP} + E\,\Delta DEN^G + E\,\Delta DEN^{EP} + \Delta OP - \Delta OA$$
$$\Delta A^{EP} + E\,\Delta A^{*EP} + \Delta H \equiv$$
$$\equiv W\,L^G + CSP^G + \Sigma P_j X_j^G + V + BS + OGC + i_B\,B +$$
$$+ i^*\,E\,DEN^G + DCF + \Sigma P_j Z_j^G + IF^G - TDIR - \Sigma t_j P_j Q_j -$$
$$- \Sigma t_j P_j M_j - CS - IC^G - RES^{EP}$$

El lado izquierdo de la ecuación (10) indica que el déficit consolidado del sector público se puede financiar a través de la emisión de pasivos públicos con el sector privado doméstico, la

venta de acciones del sector público al sector privado doméstico, la liquidación de activos públicos (que son pasivos del sector privado doméstico), la emisión de pasivos públicos externos, netos de reservas internacionales, la venta de acciones del sector público al extranjero y aumentos de la base monetaria.

A su vez, el déficit público consolidado se explica por el déficit público no financiero (gasto público en salarios, bienes y beneficios de seguridad social, transferencias e inversión real, menos impuestos directos e indirectos, contribuciones de seguridad social del sector privado e ingresos operacionales de las empresas públicas), el déficit financiero con el sector privado doméstico (pagos menos ingresos de intereses) y el déficit financiero con el exterior.

FUENTES Y USOS D

FUENTES	
I. INGRESOS TRIBUTARIOS DEL GOBIERNO	
- Impuestos directos	TDIR
- Impuestos indirectos	$\Sigma t_j P_j Q_j$
- Impuestos comercio exterior	$\Sigma t_j P_j M_j$
- Contrib. Seguridad social	CS
II. INGRESOS DE EMPRESAS PUBLICAS	
- Superavit bruto de las empresas públicas	RES^{EP}
+ Ventas brutas	
+ Ingresos no operacionales	
+ (Remuneraciones)	
+ (Compra de bienes)	
+ (Impuestos indirectos)	
+ (Gastos financieros)	
+ (Gastos de capital)	
III. INGRESOS DE CAPITAL	
- Ingresos de capital del gobierno	IC^G
IV. FINANCIAMIENTO	
- Emisión de bonos	ΔB^G
- Crédito privado interno a emp. públ.	ΔCI^{EP}
- Crédito externo al gobierno	$E\ \Delta DEN^G$
- Crédito externo a emp. públicas	$E\ \Delta DEN^{EP}$
- Aumento de otros pasivos	ΔOP
- Reducción de otros activos	ΔOA
- Venta acciones al sector privado	ΔA^{EP}
- Venta de acciones al extranjero	$E\ \Delta A^{*EP}$
- Base monetaria	ΔH

Cuadro 4

E FONDOS DEL SECTOR PUBLICO CONSOLIDADO

USOS	
I. GASTOS CORRIENTES DEL GOBIERNO	
- Remuneraciones	WL^G
- Cont. de seguridad social privada	CSP^G
- Compras de bienes	$\Sigma P_j X_j^G$
- Transf. al sector privado	V
- Benef. de seguridad social	BS
- Otros gastos corrientes	OGC
II. GASTOS FINANCIEROS	
- Intereses pagados por el gobierno:	
+ deuda interna	$i_B B$
+ deuda externa	$i^* E DEN^G$
III. SUBSIDIO CUASIFISCAL	
- Resultado operacional Bco. Central	DCF
+ Ingresos cuasifiscales	
+ (Gastos cuasifiscales)	
IV. GASTOS DE CAPITAL	
- Inversión real del gobierno	$\Sigma P_j Z_i^G$
- Otros gastos de capital	IF^G

3. Descomposición del déficit del sector público

En esta sección se presenta la metodología de descomposición del déficit del sector público consolidado a base de sus principales determinantes. Para este fin se identifican las principales variables que afectan al déficit público. Estas variables pueden ser de distinta naturaleza: reales o financieras, de precios o de cantidad, endógenas o exógenas respecto de la autoridad responsable de la política fiscal. Cada una de estas variables está vinculada a una o más partidas de fuentes y usos de fondos del sector público.

La metodología de decomposición consiste en expresar cada una de las partidas de gasto e ingreso público como su valor en el año base multiplicado por uno más las tasas instantáneas de variación de las variables determinantes del correspondiente flujo[10]. A modo de ejemplo, el gasto público por concepto de planillas de sueldos del período corriente como fracción del producto nominal se puede expresar como:

$$(11) \qquad \frac{W\ L^{SP}}{P\ Y} = \left[\frac{\overline{W\ L^{SP}}}{P\ Y}\right] (1 + \hat{W} + \hat{L}^{SP} - \pi - n)$$

donde la barra indica el valor del año base y un gorro la tasa instantánea de variación[11].

---

[10]Si la descomosición del déficit se realiza a partir de flujos definicos como porcentajes del PIB, a cada partida se debe restar las tasas porcentuales de variación de los precios (π) y del producto real (n) respecto del año base.

[11]Para una definición de la tasa instantánea de variación y de sus diferencias con la tasa ordinaria de variación ver Lerda (1989).

Esta descomposición del déficit como fracción del producto tiene una serie de ventajas: primero, se pueden identificar directamente cada una de las partidas afectadas por el cambio de una variable económica en particular; segundo, se puede identificar el subsector público al que corresponden las partidas, y tercero, se puede distinguir el presupuesto según moneda (nacional o extranjera).

Para ordenar la descomposición de las diferentes partidas según las variables económicas determinantes es conveniente introducir varias hipótesis sobre el comportamiento de las variables más importantes para el presupuesto público. Siguiendo el modelo de Marshall y Schmidt-Hebbel (1989a), se incorporan supuestos simples sobre la función de recaudación directa, de modo de expresar sus variaciones en términos de elasticidades respecto a la tasa de impuesto, a los precios, al ingreso real y a la tasa de inflación; luego se identifica el efecto de una devaluación sobre el precio de los bienes transables; y finalmente se utiliza una relación del tipo Fisher para definir la tasa de interés real. Con estos elementos se reordena la descomposición por partidas para generar la descomposición económica del déficit.

En lo que sigue se introduce una función para la recaudación de los impuestos directos nominales, que dependerá de la tasa media de impuestos directos (τ), el nivel general de precios (P), del producto interno bruto real (Y) y de la tasa de inflación:

$$\text{(12)} \qquad TDIR \equiv f(\underset{(+)}{\tau}, \underset{(+)}{P}, \underset{(+)}{Y}, \underset{(-)}{\pi})$$

donde la dependencia funcional de los impuestos directos nominales respecto de las tres primeras variables es positiva y respecto de la tasa de inflación es negativa. Es posible que la recaudación no aumente uno a uno con un aumento de cualquiera de las tres primeras variables. Es así como aumentos en la tasa de

impuestos pueden implicar aumentos menos que proporcionales en la recaudación tributaria, por menor aumento en la base tributaria (curva de Laffer) o por aumentos en la evasión. Igualmente aumentos en el nivel de precios o en el producto real pueden implicar aumentos menos que proporcionales en la recaudación nominal (o caídas en la recaudación real) en la medida en que existan rezagos en la recolección tributaria. Para medir las variaciones de la recaudación de impuestos directos ante cambios en las variables mencionadas se introducen las elasticidades α_T, α_P y α_Y, que miden el efecto de la tasa media de impuestos, el nivel de precios y el ingreso real respectivamente.

La presencia de la tasa de inflación en la ecuación (12) refleja el rezago que existe en la recaudación tributaria. En promedio este rezago puede ser de 20 a 30 días, lo que resulta significativo en países con altas tasas de inflación[12].

Respecto a las funciones de tributación indirecta, en Marshall y Schmidt-Hebbel (1989a) se supone que dependen uno a uno de la base del impuesto. Sin embargo es posible definir también en este caso una relación funcional.

Los bienes exportables e importables se consideran productos diferenciados. Ello conduce a un arbitraje imperfecto entre los precios internacionales (con asterisco) y los precios domésticos. La desviación de los precios de estos bienes respecto a la paridad está dada por los factores ϕ_X y ϕ_M.

$$(13) \qquad P_X = \phi_X P_X^* E$$

$$(14) \qquad P_M = \phi_M P_M^* E$$

Por tanto, el cambio en el precio real de los bienes

---

[12]En el caso de Argentina, las pérdidas por el rezago en la recaudación tributaria han sido estimadas en 2,4% del PIB en 1984, aumentando a más de un 3% del PIB en el primer semestre de 1985. Luego del Plan Austral, y hasta fines de 1986, estas pérdidas oscilaron en torno al 0,4% del PIB.

exportables e importables considera el efecto de los precios internacionales, el tipo de cambio y las variaciones en los factores de competitividad. Estos últimos incluyen distorsiones al comercio exterior, costos de transporte e intermediación y condiciones de competencia imperfecta.

En relación a las tasas de interés se postula simultáneamente la validez de la ecuación de Fisher y la inexistencia de incertidumbre inflacionaria. Con ello, las tasas nominales son (aproximadamente) iguales a las reales más las inflaciones respectivas:

$$i = r + \pi \tag{15}$$

$$i^* = r^* + \pi^* \tag{16}$$

Además, se define el tipo de cambio real o efectivo como la relación entre el nivel promedio de precios externos e internos, EP*/P, con lo cual la tasa de devaluación Γ se define como:

$$\Gamma \equiv \epsilon + \pi^* - \pi \tag{17}$$

Con estas relaciones, más aquellas anotadas en el cuadro 4, se puede desarrollar la descomposición del déficit consolidado del sector público. Sin embargo, para facilitar la interpretación de los resultados que se obtienen a través de este procedimiento resulta conveniente separar la descomposición del sector de empresas públicas en forma independiente al resto de las partidas del sector público.

Descomposición del déficit de las empresas públicas

El déficit de las empresas públicas se define como el aumento en la deuda de este sector con el sector privado y con el exterior más las trasferencias del gobierno general a las empresas públicas. Este déficit es igual a la diferencia entre el total de gastos de las empresas menos los ingresos operaciones

y de capital de este sector.

Las variables que afectan al déficit de las empresas públicas se pueden dividir en cuatro grupos: las variables externas al país, el entorno macroeconómico interno, las decisiones de política del gobierno general y las decisiones propias de las empresas públicas. La identificación del efecto de los cambios en cada una de estas variables sobre el déficit del sector permite una mejor evaluación del desempeño de las empresas públicas.

En cada uno de los grupos señalados se utilizan las siguientes variables para la descomposición del déficit de las empresas públicas: (a) marco externo: precio de exportables (P_X^*), precio de importables (P_M^*), tasa de interés internacional (i^*), tasa de inflación internacional (π^*); entorno macroeconómico: tasa de devaluación real (Γ), tasa de inflación (π), salarios reales (W/P), coeficientes de independencia de los precios transables internos (ϕ_X y ϕ_M), tasa de interés interna (i); (c) decisiones de política del gobierno general: tarifas de empresas públicas en mercados no competitivos (P_S); (d) decisiones de política de las empresas: ventas brutas (Q_j), empleo (L_j), compras intermedias (X_j), inversión real bruta (Z_j), inversión financiera (EF_j).

Descomposición del déficit público consolidado

La metodología desarrollada en Marshall y Schmidt-Hebbel (1989a) sirve como marco de referencia para la descomposición del deficit público consolidado[13]. Los rasgos del modelo reflejan la estructura global del sector público en América Latina, más que la de un país en particular. Esto implica que en su aplicación, este marco de referencia debe modificarse para hacerlo consistente con la estructura sectorial, de políticas e

[13]En el anexo de este trabajo se presenta la ecuación de descomposición del marco analítico-contable desarrollado en Marshall y Schmidt-Hebbel (1989a).

instrumentos fiscales específicos de cada país.

El problema central en la descomposición del déficit público consiste en la disponibilidad de datos. En general, la metodología propuesta fue desarrollada con el propósito de que su implementación requiera de un mínimo de información. La información base es un cuadro de fuentes y usos de fondos del sector público consolidado. A partir de esta información se puede expresar cada categoría como porcentaje del PIB nominal. El paso siguiente es calcular las diferencias o variaciones de cada fuente o uso como porcentaje del PIB. Tal diferencia debe ser asignada entre las variables contables que determinan directamente el flujo.

Al igual que en el caso de las empresas públicas, las variables que determinan el déficit público pueden ser externas al país, formar parte del entorno macroeconómico o ser políticas activas de la autoridad fiscal. Aparte de las variables mencionadas anteriormente en cada una de estas categorías, en la descomposición del déficit público consolidado se incluyen los cambios en las políticas públicas: empleo público, salarios de los funcionarios públicos, compras de bienes del gobierno, trasferencias corrientes, beneficios del sistema de seguridad social, inversión real, tasas de impuestos directos e indirectos.

Una vez identificado el efecto de estas variables es posible reordenar el cuadro de descomposición contable a partir de los determinantes económicos del déficit. Es decir, en vez de asignar las variaciones de cada categoría entre sus determinantes contables, ellas se asignan a los cambios en las variables económicas.

IV. RESULTADOS DEL ANALISIS DE DESCOMPOSICION

La metodología presentada en las secciones anteriores sirve de base para una serie de estudios de casos sobre la evolución del déficit público en América Latina[14]. Algunos resultados de tales estudios permiten comparar diferentes mediciones para el déficit del sector público y analizar el efecto de variables externas sobre el déficit. Entre estas últimas destaca el efecto de una devaluación sobre el déficit. Tal efecto tiene importancia en la medida que las políticas de ajuste y estabilización requieren, normalmente, de un aumento en el tipo de cambio de real y de una reducción en el déficit. De allí que si la devaluación reduce el déficit, el esfuerzo adicional en materia de ingresos y gastos públicos es menor. Otro fenómeno que es posible analizar en base a los resultados de los estudios de casos es el desempeño de las empresas públicas, incluyendo sus principales determinantes.

1. Mediciones del déficit público

En las mediciones del déficit público es necesario conocer dos características que resultan determinates en el resultado: la cobertura del sector público y el concepto de déficit. Para ilustrar estas discrepancias se presentan en el cuadro 5 dos mediciones del déficit público de Chile y México. En el caso de Chile ellas difieren en la cobertura, mientras que en el caso de México ellas responden a conceptos diferentes.

Las cifras del cuadro 5 correspondientes a Chile muestran la diferencia entre el déficit del sector público no financiero y del sector público consolidado. El segundo incluye las operaciones cuasi fiscales del Banco Central. Las operaciones

---

[14]Los resultados de esta sección están basados en el estudio sobre la política fiscal en Chile (Larrañaga, 1988).

cuasi fiscales de mayor envergadura son un subsidio implícito para los deudores externos a través de un tipo de cambio preferencial y un programa de apoyo al sistema financiero que incluye un spread negativo para el Banco Central.

En el caso de México, la diferencia entre la medición convencional y operacional del déficit se debe al efecto de la inflación sobre los gastos financieros del gobierno general.

Cuadro 5

MEDICIONES DEL DEFICIT PUBLICO

(porcentajes del PIB)

	Chile		México	
	Déficit operacional		SP no financiero	
	SP no finaciero	SP consolidado	Déf. convencional	Déf. operacional
1980	-5,1	-4,6	6,0	4,3
1981	0,0	0,4	12,5	9,5
1982	4,0	10,1	14,6	7,2
1983	3,5	8,7	7,6	-1,2
1984	4,7	12,2	6,6	-1,0
1985	3,1	13,7	7,4	3,5
1986	3,1	8,4	13,7	5,8
1987	1,4	5,0	16,6	-5,4

Fuentes: Barandiarán (1988) y Larrañaga (1988).

2. Determinantes del déficit público

Una característica de la evolución del déficit público en América Latina durante la presente década es la coexistencia de una política de austeridad en el gasto no financiero con elevados déficit del sector público. Este fonómeno se explica por el efecto adverso de skocks externos.

En el caso de Chile, el sector público tuvo un superávit

equivalente a 4,6% del PIB en 1980 y un déficit de 13,7% del PIB en 1985. Este aumento en el déficit se explica, principalmente, por el efecto de los cambios en el entorno externo al sector público y de reformas al sistema tributario y al sistema previsional.

Entre los cambios en las variables externas se encuentra la reducción en el volumen de comercio, con un costo equivalentye a 1% del PIB en términos de menores ingresos, la caída en los términos de intercambio, con un efecto en términos de menores ingresos por un monto equivalente a 3,5% del PIB y un aumento en el servicio de la deuda externa por un monto de 4,7% del PIB. Estos tres efectos suman 9,2% del PIB. Vale decir, aproximadamente un 50% del aumento del déficit público.

En el escenario macroeconómico interno la variable que tiene mayor importancia es el aumento en el tipo de cambio real. Entre 1980 y 1985 se produce una devaluación real de 50%. Ello aumenta los ingresos tributarios y las ventas de las empresas públicas. En el caso de Chile, este efecto alcanza alrededor de 5% del PIB.

Las reformas al sistema tributario (1984) y al sistema previsional (1981) redujeron los ingresos del sector público. La primera, por disminusión en las tasas de los impuestos directos, y la segunda, por la reducción en el número de cotizantes en las cajas estatales de previsión. Sólo la reducción en el número de cotizantes significó una redución en los ingresos públicos de 5,5% del PIB. Por su parte, la reforma tributaria de 1984 generó una reducción de 2% del PIB en la recaudación directa.

Otro componente importante en el aumento del déficit público en Chile son las operaciones cuasi fiscales del Banco Central. Si bien se trata de una política fiscal activa, en gran parte ella responde a los shocks externos. El aumento de dichas operaciones entre 1980 y 1985 es igual a 7,3% del PIB.

El conjunto de estos efectos se detalla en el cuadro 6.

Cuadro 6

CHILE: DETERMINANTES DEL DEFICIT PUBLICO 1980-85

(porcentajes sobre el PIB)

Variable	Efecto
Schocks externos	
+ reducción de importaciones	1,0
+ variación de precios externos	3,5
+ aumento deuda pública	4,7
Entorno macroeconómico	
+ devaluación real	-5,0
Reformas estructurales	
+ reforma tributaria	2,0
+ reforma previsional	5,5
Operaciones cuasi fiscales	7,3
Total	19,0
Variación del déficit	18,3

Fuente: Estimaciones basadas en Larrañaga (1988)

En síntesis, la responsabilidad por el aumento del déficit público en Chile entre 1980 y 1985 es compartida entre las variables externas y las medidas de política fiscal.

3. El efecto de la devaluación sobre el déficit

Un aumento del tipo de cambio real tiene una serie de efectos sobre el déficit público, especialmente a través de la recaudación de impuestos al comercio exterior, las ventas de las empresas públicas productoras de bienes transables, las compras intermedias y la inversión real en bienes transables por parte del gobierno general y de las empresas públicas y los gastos

financieros de la deuda externa.

En materia de recaudación tributaria una devaluación real tiene dos efectos: en primer lugar, el tipo de cambio se utiliza para el cálculo de la base imponible en moneda doméstica de los impuestos al comercio exterior. De allí que una devaluación genera un aumento en la recaudación tributaria. La magnitud de este efecto depende de la importancia de los impuestos al comercio exterior en el total de los ingresos tributarios. Por ejemplo, en el caso de Chile, el IVA a las importaciones y los aranceles generan una recaudación en torno a 7% del PIB. En segundo lugar, el aumento en el tipo de cambio tiene un efecto indirecto sobre el volúmen de comercio exterior[15]. Este efecto reduce la recaudación tributaria. Sin embargo, la estimaciones de la elasticidad de la demanda por importaciones indican que ésta tiene un valor bajo en los países de América Latina. Por ello, la suma del efecto directo e indirecto de la devaluación aumenta los ingresos del sector público.

Las compras intermedias de bienes transables y la adquisición de maquinarias y equipos es otra de las partidas que resulta afectada por una devaluación real. Nuevamente, es posible identificar un efecto directo y otro indirecto. El primero cambia el costo de los bienes manteniendo constante la cantidad. El segundo refleja el ajuste en la cantidad.

Las ventas de las empresas públicas productoras de bienes transables son una de las partidas más importantes en el efecto de la devaluación sobre el deficit público. En los países donde este grupo de empresas es importante la devaluación tiende a reducir un déficit del sector público consolidado.

Por último, una devaluación real afecta el servicio de la deuda externa. En este caso existe un efecto directo, proporcional al monto de los compromisos financieros con el exterior.

---

[15]En el corto plazo una devaluación real también puede generar una reducción en el producto interno.

En el cuadro 7 se presenta una estimación del efecto de una devaluación de 10% en Chile.

Cuadro 7

CHILE: EFECTO DE UNA DEVALUACION REAL
DE 10% SOBRE EL DEFICIT PUBLICO

(porcentajes del PIB)

	base 1980	efecto dir.
Tributación al comercio exterior	6,6	-0,6
Compra de bienes intermedios		
- gobierno general	3,1	0,3
- empresas públicas	11,2	0,7
Inversión real		
- gobierno general	2,6	0,0
- empresas públicas	2,6	0,2
Venta de empresas públicas		
- cobre	8,8	-0,9
- transables no cobre	11,1	-1,0
- no transables	5,0	-0,0
Gastos financieros externos		
- gobierno general	0,8	0,1
- empresas públicas	0,9	0,1
- Banco Central	0,5	0,0
TOTAL		-1,2

En el caso de Chile, una devaluación real de 10% genera un aumento en los recursos fiscales por un monto en torno al 1% del PIB. Este efecto se debe principalmente al aumento en las ventas de las empresas públicas que alcanza a un 2%. En ausencia de este efecto, el resultado de la devaluación seria negativo para el sector público.

4. El déficit de las empresas públicas

La descomposición del resultado de las empresas públicas entrega una importante información para analizar el desempeño de este sector. En el caso de Chile esta información se presenta en el cuadro 8.

Cuadro 8

CHILE: CAMBIO EN EL SUPERAVIT DE LAS EMPRESAS PUBLICAS ENTRE 1980 Y 1985

(porcentajes del PIB)

	TOTAL
Ventas	7,2
- precios externos	-3,5
- tarifas públicas	0,8
- tipo de cambio	7,8
- producción	5,4
Otros ingresos netos	2,2
Gastos de operación	2,9
- remuneraciones	-0,3
- compras interm.	3,2
Gastos financieros	3,4
- deuda e int. intern.	2,0
- deuda externa	0,7
- tipo de cambio	0,7
- tasa de interés ext.	0,0
Ahorro	4,5
Ingresos netos de cap.	-0,2
Inversión real	1,4
Superávit	2,4
- transf. al fisco	-1,5
- fin. externo	0,4
- fin. interno	-1,3

Fuente: Larrañaga (1988).

Entre 1980 y 1985 el sector de empresas públicas mejoró su

resultado financiero en un monto equivalente a 2,4% del PIB. A su vez, el ahorro de este sector aumentó en 4,5% del PIB. La explicación de este fenómeno se encuentra en el tipo de cambio y en el aumento de la producción. El efecto de ambas variables produjo un aumento en los ingresos brutos por ventas por casi 13% del PIB. Ahora, el aumento en la producción y en el tipo de cambio aumentaron los gastos operacionales y el costo de los bienes de capital. De allí que en términos netos el efecto de la devaluación real y el aumento de la producción alcanza al 8,6%.

Otro efecto importante es el aumento de los gastos financieros por un monto equivalente a 3,4% del PIB.

Como resultado del aumento en el superavit financiero de las empresas públicas, el gobierno general recibió recursos adicionales por 1,5% del PIB, utilizando un 1,3% del PIB en reducción de la deuda interna.

REFERENCIAS

Barandiarán, Edgardo (1988) "The adjustment in Latin America's highly indebted countries", manuscrito, World Bank.

Eyzaguirre, Nicolas (1989) "Ahorro e inversión bajo restricción externa y fiscal. El caso de Chile 1982-87", manuscrito CEPAL.

Larrañaga, O. (1988): "El déficit del sector público y la política fiscal en Chile. 1978-87", manuscrito CEPAL.

Lerda, Juan Carlos (1989) "Residuos y términos de interacción en la descomposición del déficit público: tiv versus tov", manuscrito, Proyecto Regional de Política Fiscal, CEPAL-PNUD.

Marfán, M. (1986): "La política fiscal macroeconómica", en R. Cortázar: Políticas macroeconómicas: una perspectiva latinoamericana, CIEPLAN.

Marshall, J. y K. Schmidt-Hebbel (1989a): "Un marco analítico-contable para la evaluación de la política fiscal en América Latina", Serie de Política Fiscal Nº1, CEPAL.

Marshall, J. y K. Schmidt-Hebbel (1989b): "La política fiscal en los 80", Serie de Política Fiscal Nº2, CEPAL.

Marshall, J. y K. Schmidt-Hebbel (1989c): "La política fiscal en América Latina: tópicos de investigación", Serie de Política Fiscal Nº3, CEPAL.

Piekarz, Julio A. (1987) "El deficit cuasi fiscal del banco Central", manuscrito, Banco Central de la República Argentina.

Robinson, D. and P. Stella (1987): "Amalgamating Central Bank and Fiscal Deficit", IMF Staff Papers.

Tanzi, V., M.I. Blejer y M.O. Teijeiro (1987): "Inflation and the measurement of fiscal deficits", IMF Staff Papers, vol. 34, No. 4.

ANEXO

ECUACION PARA LA DESCOMPOSICION DEL DEFICIT PUBLICO

De acuerdo a los flujos de fuentes y usos de fondos definidos en el trabajo de Marshall y Schmidt-Hebbel (1989a), la ecuación de descomposición del déficit público consolidado es la siguiente:

$$\frac{1}{PY}\,\Delta B^{SPR} + \frac{1}{PY}\,\Delta H + \frac{1}{PY}\,\Delta OP^{SPR} - \frac{1}{PY}\,\Delta OASP + \frac{1}{PY}\,\Delta A^{C} + \frac{E}{PY}\,\Delta DEN +$$

$$+ \frac{E}{PY}\,\Delta A^{*} \equiv$$

$$\equiv -\left[\hat{P}_X^{*} - \pi^{*}\right]\left[\left(\frac{\overline{t_X P_X Q_X^{EPR}}}{PY}\right) + \left(\frac{\overline{P_X Q_X^{EP}}}{PY}\right) - \left(\frac{\overline{P_X Q_X^{G}}}{PY}\right) - \left(\frac{\overline{P_X Q_X^{ISP}}}{PY}\right)\right] -$$

$$- \left[\hat{P}_M^{*} - \pi^{*}\right]\left[\left(\frac{\overline{t_M P_M Q_M^{EPR}}}{PY}\right) + \left(\frac{\overline{P_M Q_M^{EP}}}{PY}\right) - \left(\frac{\overline{P_M Q_M^{G}}}{PY}\right) - \left(\frac{\overline{P_M Q_M^{ISP}}}{PY}\right)\right] +$$

$$+ \left[\Gamma\right]\left[-\left(\frac{\overline{t_X P_X Q_X^{EPR}}}{PY}\right) - \left(\frac{\overline{t_M P_M Q_M^{EPR}}}{PY}\right) - \left(\frac{\overline{P_X Q_X^{EP}}}{PY}\right) - \left(\frac{\overline{P_M Q_M^{EP}}}{PY}\right) + \left(\frac{\overline{P_X Q_X^{G}}}{PY}\right)\right.$$

$$\left. + \left(\frac{\overline{P_M Q_M^{G}}}{PY}\right) + \left(\frac{\overline{P_X Q_X^{ISP}}}{PY}\right) + \left(\frac{\overline{P_M Q_M^{ISP}}}{PY}\right)\right] + \left[\hat{W} - \pi\right]\left[\left(\frac{\overline{W}\ \overline{L}^{SP}}{PY}\right)\right] -$$

$$- \left[\hat{P}_N - \pi \right] \left[\left(\frac{\overline{t_N P_N Q_N^{EPR}}}{P \cdot Y}\right) + \left(\frac{\overline{P_N Q_N^{EP}}}{PY}\right) - \left(\frac{\overline{P_N Q_N^{G}}}{PY}\right) - \left(\frac{\overline{P_N Q_N^{ISP}}}{PY}\right) \right] -$$

$$- \left[\hat{P}_S - \pi \right] \left[\left(\frac{\overline{t_S P_S Q_S^{EPR}}}{PY}\right) + \left(\frac{\overline{P_S Q_S^{EP}}}{PY}\right) - \left(\frac{\overline{P_S Q_S^{G}}}{PY}\right) \right] -$$

$$- \left[\hat{\phi}_X \right] \left[\left(\frac{\overline{t_X P_X Q_X^{EPR}}}{PY}\right) + \left(\frac{\overline{P_X Q_X^{EP}}}{PY}\right) - \left(\frac{\overline{P_X Q_X^{G}}}{PY}\right) - \left(\frac{\overline{P_X Q_X^{ISP}}}{PY}\right) \right] -$$

$$- \left[\hat{\phi}_M \right] \left[\left(\frac{\overline{t_M P_M Q_M^{EPR}}}{PY}\right) + \left(\frac{\overline{P_M Q_M^{EP}}}{PY}\right) - \left(\frac{\overline{P_M Q_M^{G}}}{PY}\right) - \left(\frac{\overline{P_M Q_M^{ISP}}}{PY}\right) \right] +$$

$$+ \left[\pi \right] \left[\frac{\overline{f(\tau, P, Y)}}{P\ Y} \left[1 - \alpha_P \right] \right]$$

$$- \left[\hat{Q}_X^{EPR} - n \right] \left[\left(\frac{\overline{t_X P_X Q_X^{EPR}}}{PY}\right) \right] - \left[\hat{Q}_M^{EPR} - n \right] \left[\left(\frac{\overline{t_M P_M Q_M^{EPR}}}{PY}\right) \right] -$$

$$- \left[\hat{Q}_N^{EPR} - n \right] \left[\left(\frac{\overline{t_N P_N Q_N^{EPR}}}{PY}\right) \right] - \left[\hat{Q}_S^{EPR} - n \right] \left[\left(\frac{\overline{t_S P_S Q_S^{EPR}}}{PY}\right) \right] -$$

$$- \left[\hat{Q}_N^{EP} - n \right] \left[\left(\frac{\overline{P_X Q_X^{EP}}}{PY}\right) \right] - \left[\hat{Q}_M^{EP} - n \right] \left[\left(\frac{\overline{P_M Q_M^{EP}}}{PY}\right) \right] -$$

$$- \left[\hat{Q}_N^{EP} - n \right] \left[\left(\frac{\overline{P_N Q_N^{EP}}}{PY} \right) \right] - \left[\hat{Q}_S^{EP} - n \right] \left[\left(\frac{\overline{P_S Q_S^{EP}}}{PY} \right) \right] -$$

$$- \left[n \right] \left[\left(\frac{\overline{W\ L^{SP}}}{PY} \right) + \left(\frac{\overline{V}}{PY} \right) + \left(\frac{\overline{BS}}{PY} \right) - \left(\frac{\overline{CSBPR}}{PY} \right) - \left(\frac{\overline{\Sigma CSEPR_j}}{PY} \right) + \left(\frac{\overline{f(\tau, P, Y)}}{PY} \right) (\alpha_Y - 1) \right] +$$

$$+ \left[\hat{L}^{SP} \right] \left[\left(\frac{\overline{W\ L^{SP}}}{P\ Y} \right) \right] +$$

$$+ \left[\hat{Q}_X^G - n \right] \left[\left(\frac{\overline{P_X Q_X^G}}{PY} \right) \right] + \left[\hat{Q}_M^G - n \right] \left[\left(\frac{\overline{P_M Q_M^G}}{P \cdot Y} \right) \right] +$$

$$+ \left[\hat{Q}_N^G - n \right] \left[\left(\frac{P_N Q_N^G}{PY} \right) \right] + \left[\hat{Q}_S^G - n \right] \left[\left(\frac{P_S Q_S^G}{PY} \right) \right] +$$

$$+ \left[\hat{Q}_X^{ISP} - n \right] \left[\left(\frac{\overline{P_X Q_X^{ISP}}}{PY} \right) \right] + \left[\hat{Q}_M^{ISP} - n \right] \left[\left(\frac{\overline{P_M Q_M^{ISP}}}{PY} \right) \right] +$$

$$+ \left[\hat{Q}_N^{ISP} - n \right] \left[\left(\frac{\overline{P_N Q_N^{ISP}}}{PY} \right) \right] + \left[\hat{V} - \pi \right] \left[\left(\frac{\overline{V}}{PY} \right) \right] +$$

$$+ \left[\hat{BS} - \pi \right] \left[\left(\frac{\overline{BS}}{PY} \right) \right] - \left[\Delta \tau \right] \left[\left(\frac{\overline{f(\tau, P\ Y)}}{PY} \right) \frac{\alpha_\tau}{\tau} \right]$$

$$- \left[\hat{CSBPR} - \pi \right] \left[\left(\frac{\overline{CSBPR}}{PY} \right) \right] - \left[\hat{\Sigma CSEPRj} - \pi \right] \left[\frac{\overline{\Sigma CSEPRj}}{PY} \right] -$$

$$- \left[\hat{t_X} \right] \left[\left(\frac{\overline{t_X P_X Q_X^{EPR}}}{PY} \right) \right] - \left[\hat{t_M} \right] \left[\left(\frac{\overline{t_M P_M Q_M^{EPR}}}{PY} \right) \right] -$$

$$- \left[\hat{t_N} \right] \left[\left(\frac{\overline{t_N P_N Q_N^{EPR}}}{PY} \right) \right] - \left[\hat{t_S} \right] \left[\left(\frac{\overline{t_S P_S Q_S^{EPR}}}{PY} \right) \right] +$$

$$+ \left[\left(\frac{\overline{W\ L^{SP}}}{PY} \right) + \Sigma \left(\frac{\overline{P_j Q_j^G}}{PY} \right) + \left(\frac{\overline{V}}{PY} \right) + \left(\frac{\overline{BS}}{PY} \right) - \left(\frac{\overline{f(\tau, P, Y)}}{PY} \right) - \left(\frac{\overline{CSBPR}}{PY} \right) - \right.$$

$$\left. \frac{\overline{\Sigma CSEPRj}}{PY} - \Sigma \left(\frac{\overline{t_j P_j Q_j^{EPR}}}{PY} \right) - \Sigma \left(\frac{\overline{P_j Q_j^{EP}}}{PY} \right) + \Sigma \left(\frac{\overline{P_j Q_j^{ISP}}}{PY} \right) \right] +$$

$$\Delta(r_B + \pi) \left[\frac{\overline{B^{SPR}}}{PY} \right] + \Delta \left[\frac{B^{SPR}}{PY} \right] \overline{(r_B + \pi)} + \Delta(r_{OP} + \pi) \left[\frac{\overline{OP^{SPR}}}{PY} \right] +$$

$$\Delta \left[\frac{OP^{SPR}}{PY} \right] \overline{(r_{OP} + \pi)} - \Delta(r_{OA} + \pi) \left[\frac{\overline{OASP}}{PY} \right] - \Delta \left[\frac{OASP}{PY} \right] \overline{(r_{OA} + \pi)} +$$

$$\Delta(r^* + \pi^*) \left[\frac{\overline{E\ DEN}}{PY} \right] + \Delta \left[\frac{E\ DEN}{PY} \right] \overline{(r^* + \pi^*)} + \left[\overline{(r_B + \pi)} \left[\frac{\overline{B^{SPR}}}{PY} \right] + \right.$$

$$+ \overline{(r_{OP} + \pi)} \left[\frac{\overline{OP}^{SPR}}{PY}\right] - \overline{(r_{OA} + \pi)} \left[\frac{\overline{OASP}}{PY}\right] + \overline{(r^* + \pi^*)} \left[\frac{\overline{E\ DEN}}{PY}\right] \Bigg]$$

Es importante observar que esta ecuación puede ser modificada si se altera el número de variables determinantes del déficit o si se suponen relaciones funcionales alternativas.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Miércoles, 5 de abril de 1989

Sesión 6

11:15 - 12:00

Tópico: Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos

Conferencista: Sr. J. A. Morales (Consultor, GTZ)

Lectura Requerida: 1. **Morales,** Juan Antonio, "Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos", Febrero, 1989.

Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos
Febrero 1989

por

Juan Antonio Morales

Consultor
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH

Preliminar
Febrero 1989

Preliminar
Febrero, 1989

PLANES DE DESARROLLO Y POLITICAS FISCALES: ASPECTOS TECNICOS Y POLITICOS

por Juan Antonio Morales*

INTRODUCCION

Este trabajo tiene por objetivo principal examinar los aspectos fiscales en ejercicios de planificación que tienen un horizonte de largo plazo. Se intenta, en especial, contribuir a la comprensión de los problemas de financiamiento y de gestión del sector público de largo plazo, a partir de condiciones iniciales muy difíciles. A pesar de que la mayor parte de la discusión está basada en el ejercicio boliviano, al que nos referimos más adelante, algunos de los tópicos pueden tener un interés más general, en especial, aquellos que tratan problemas que son comunes a países pequeños y medianos, con una deuda publica externa muy sustancial y con un amplio sector público dependiente de manera importante para su financiamiento de las exportaciones de recursos naturales no renovables.

El desempeño del sector público da una explicación crucial del desarrollo económico boliviano (y también de su alto endeudamiento externo) entre 1952 y 1985.[1] Para los fines de este documento, se entiende como sector público al sector público consolidado no

---

* Consultor de la Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). Este trabajo está fuertemente inspirado en la Estrategia de Desarrollo Económico y Social, 1989-2000, preparada por el Ministerio de Planeamiento y Coordinación del gobierno de Bolivia, con la cooperación de la GTZ y de otras agencias internacionales. El autor desea agradecer a E. Arispe, D. Welz y K. Roger por sus comentarios a esta versión.

financiero, conformado por el gobierno - en sus niveles centrales, regionales y locales - y las empresas públicas. El tamaño del sector público en la economía boliviana sigue siendo grande, aún después de las reformas del último trimestre de 1985. Más aún, independientemente de cualquier estrategia específica de desarrollo, el sector público continuará teniendo, previsiblemente, un papel significativo en la formación de capital.

El Decreto Supremo NO. 21060 del 29 de Agosto de 1985 dió inicio a un abanico de profundas reformas económicas, simultáneamente con un programa de estabilización. Esas reformas configuran la Nueva Política Económica (NPE). Las reformas económicas traídas por la NPE incluyen principalmente las redefiniciones de los papeles del Estado y del sector privado, la apertura al comercio exterior, incentivos para favorecen la produccion de bienes transables en el comercio internacional, -especialmente los basados en la dotación de recursos naturales-, la reducción de protecciones excesivas al sector industrial, y el impulso a la agricultura -tanto campesina como comercial.

Con la aplicación exitosa de la NPE vinieron las necesidades de proveer al país con una visión de largo plazo de su desarrollo económico y de delinear un conjunto de políticas adecuadas a ésta. En respuesta, el gobierno boliviano ha preparado un documento conteniendo una estrategia comprensiva de desarrollo económico y social (a la que nos referiremos de aquí en adelante como la Estrategia), con el horizonte 1989-2000. Se subrayará que este documento tiene todavía un carácter solamente técnico porque no ha sido todavía aprobado en los niveles más altos de decisión.

La Estrategia ambiciona ser percibida por el público como una prolongación natural de las reformas de política económica que

comenzaron en Agosto de 1985; proporciona adicionalmente escenarios de las perspectivas de largo plazo de la economía boliviana, si se sigue determinadas políticas. La Estrategia no está divorciada de las políticas de estabilización; al contrario, condiciona sus logros a una secuencia de políticas correctas de corto plazo y a que los distintos componentes de la demanda agregada se alíneen con sus perspectivas de largo plazo.* Se parte de la premisa de que las políticas de estabilización son fundamentales para sostener una estrategia de crecimiento.

La Sección I proporciona una vision panorámica de las condiciones iniciales para la formulación de una política fiscal de largo plazo. En la Seccion II, se examina los alcances de la Estrategia, con una caracterización de sus objetivos e instrumentos. En la Sección III, que tiene un carácter ligeramente más técnico que las otras, se presenta los enfoques seguidos para la consistencia macroeconómica de la Estrategia. En la Sección IV se dedica espacio a los aspectos de economía política en la formulación de la Estrategia y en el programa de inversiones públicas concomitante. La Sección V resume el documento y ofrece las conclusiones principales.

I.- ANTECEDENTES

A.- Tamaño y desarrollos recientes del sector público

El Cuadro 1 muestra la importancia del sector público en la economía de los años ochenta. El consumo del gobierno más la inversión pública constituyeron más del 19% del Producto Interno Bruto (PIB) entre 1980 y 1988. Solamente en 1986 - año inmediatamente posterior al del programa de estabilizacion y cuando además se sufrió un fuerte deterioro en los terminos de intercambio -

CUADRO 1

EVOLUCION DE LOS GASTOS PUBLICOS, 1980-1988

(En porcentaje del PIB)

	CONSUMO DEL GOBIERNO	INVERSION FIJA DEL SECTOR PUBLICO	GASTO PUBLICO TOTAL
1980	14.0	7.0	21.0
1981	11.8	7.7	19.5
1982	15.7	6.5	22.2
1983	16.7	4.6	21.3
1984 p)	20.5	3.1	23.6
1985 e)	15.5	3.5	19.0
1986 e)	11.2	4.7	15.9
1987 e)	14.2	5.4	19.6
1988 e)	13.4	6.0	19.4

FUENTE: Banco Mundial, Bolivia:Updating Economic Memorandum, Junio 1988
y Estrategia de Desarrollo Económico y Social, 1989-2000

NOTAS: p) Preliminar
e) Estimacion

CUADRO 2

RESUMEN DE LAS OPERACIONES DEL SECTOR PUBLICO CONSOLIDADO, 1980-1987

(En porcentaje del PIB)

	1980	1981	1982	1983	1984 p)	1985 e)	1986 e)	1987 e)
Superávit/Déficit en Cuenta Corriente	-2.2	-0.6	-8.9	-16.6	-20.3	-7.1	-0.7	-5.6
Ingresos de Capital	0.3	0.5	0.6	4.1	0.3	0.2	1.1	0.9
Gastos de Capital	7.0	7.3	7.4	5.2	3.9	3.0	4.3	5.1
Préstamos netos	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Superávit/Déficit Global	-9.1	-7.5	-15.9	-17.7	-24.0	-9.9	-4.0	-9.8
Financiamiento	9.1	7.5	15.9	17.7	24.0	9.9	4.0	9.8
Financiamiento Externo (neto)	4.9	12.4	0.1	-0.7	5.0	3.8	5.3	5.2
Financiamiento Interno (neto)	4.0	-4.7	16.6	18.4	19.0	6.1	-1.3	4.6
Sistema Bancario (neto)	4.6	4.0	32.9	29.7	22.5	7.1	-3.1	1.6
Otros (neto)	-0.6	-8.7	-16.2	-11.3	-3.4	-1.0	1.8	3.0
Préstamos Externos de Corto Plazo	0.2	-0.1	-0.9	0.0	0.0	0.0	0.0	0.0

FUENTE: Banco Mundial, Bolivia:Updating Economic Memorandum, Junio 1988
y Estrategia de Desarrollo Económico y Social, 1989-2000

NOTAS: p) Preliminar
e) Estimacion

el gasto público cayó por debajo de 16%. Desde entonces, el gasto público como proporción del PIB, ha venido recuperando sus niveles anteriores.

Se notará que la inversión fija pública constituyó más de la mitad del total de inversión fija total en el mismo período; ésta situación continuó aún después de iniciado el programa de estabilización. El estado es propietario de las principales empresas exportadoras Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) y Corporación Minera de Bolivia (COMIBOL), aunque ésta última ha venido perdiendo importancia. En relación al empleo, se hace notar que en 1986, último año para el que se disponen cifras, el empleo en el sector público absorbía el 25.4% del total de empleo urbano.

El Cuadro 2 ilustra las dificultades de financiamiento del sector público en los años ochenta. Se observará en ese cuadro los extraordinariamente grandes déficits fiscales (calculados con la definición convencional de necesidades de financiamiento del sector público consolidado) durante los años de alta inflación 1982-1986 y la caída dramática del déficit fiscal en 1986. Desafortunadamente, el déficit se incrementó de nuevo en 1987, debido en gran parte a las moras de la Argentina en sus pagos por el gas natural que Bolivia le vende y las indemnizaciones de retiro a los trabajadores despedidos de la empresa estatal Corporación Minera de Bolivia. Los datos del sector público consolidado no están todavia completos para 1988; estimaciones preliminares señalan una mejoría notable en relación a 1988.

Se debe recordar que en el programa boliviano de estabilización, las medidas de sanemiento fiscal son medulares.[3] En su parte fiscal el programa incluye: 1) Un componente impositivo muy

sustancial en los precios internos de la gasolina y otros derivados de petróleo. 2) Una reforma tributaria de gran alcance, legislada en 1986. 3) Reformas de las empresas públicas. 4) Reforma presupuestaria. 5) Recortes sustanciales en el gasto.

El componente impositivo en el precio de los derivados de petróleo estuvo entre las medidas iniciales más efectivas de sanemiento fiscal (junto con la fuerte devaluación inicial del tipo de cambio oficial). Se puede apreciar en el Cuadro 3, la importancia de los impuestos a los derivados del petróleo en los ingresos del gobierno central. Se prevé que este tipo de impuestos se mantendrá en sus actuales altos niveles en los próximos años.

Dos tipos de impuestos están en el núcleo de la reforma tributaria de 1986: 1) el impuesto al valor agregado (IVA) con una tasa uniforme de 10%; y 2) impuestos a la riqueza visible, principalmente a los bienes raices y los automotores. Los impuestos a la renta sensu stricto han sido reemplazados por un llamado "impuesto complementario al IVA" con una tasa uniforme de 10% y contra el cúal se pueden acreditar los pagos de IVA, y un impuesto sobre el patrimonio neto de las empresas de 2%. En una óptica de largo plazo, es necesario subrayar que la reforma tributaria alienta el ahorro y la inversión del sector privado.

El gobierno también encaró en 1986 y 1987 una reforma profunda de COMIBOL e YPFB. el criterio principal en estas reformas es darles una orientación más empresarial, haciendo hincapié en la producción, eliminando varias de sus antiguas funciones "sociales", reduciendo personal supernumerario y aclarando sus responsabilidades frente al gobierno central y, en última instancia, al electorado.

CUADRO 3

ESTRUCTURA DE LOS INGRESOS DEL GOBIERNO CENTRAL, 1980-1987

	1980	1981	1982	1983	1984	1985	1986	1987
IMPUESTOS AL COMERCIO EXTERIOR	51.5	49.0	40.7	31.0	68.2	75.9	25.3	27.9
Impuestos a Exportaciones de Hidrocarburos	6.8	13.2	7.2	2.5	8.0	60.1	13.1	13.2
Impuestos a Exportaciones de Minerales	16.0	8.2	9.1	4.4	27.6	3.1	0.2	0.5
Otros Impuestos	28.8	29.7	24.3	24.1	32.6	12.7	12.1	14.2
IMPUESTOS INTERNOS	48.5	51.0	59.3	69.0	31.8	24.1	74.7	72.1
Impuestos a Derivados de Petroleo	8.8	17.0	17.1	9.7	4.2	9.1	48.7	36.1
Otros Impuestos e Ingreso	39.7	34.0	42.2	59.2	27.6	15.0	26.0	36.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

FUENTE: Elaboracion del autor con datos básicos de UDAPE, Dossier de Información Estadística, 1980-1987

CUADRO 4

DEUDA EXTERNA PUBLICA DE MEDIANO Y LARGO PLAZO

(En millones de U$S, a fines de año)

CONCEPTO	1980	1985	1987	1988
DEUDA PUBLICA TOTAL a)	2,228	3,485	4,162	3,976
Acreedores Oficiales	1,147	2,087	3,424	3,585
Multilaterales	492	755	1,163	1,279
Bilaterales	655	1,332	2,261	2,306 c)
Acreedores Privados	1,081	1,398	738	391
Servicio Total de la Deuda	290	249	157	155
Intereses	164	98	80	63
Amortizaciones	126	151	77	92
Transferencias Netas	178	-116	55	211
Deuda Total como % del PIB	67.2	93.0	86.2	77.1
Servicio Total de la Deuda como % del PIB	8.8	6.6	3.3	3.0
Transferencias Netas como % del PIB	5.4	-3.1	1.1	4.1
Deuda Total como % de Exportaciones	214.5	478.7	672.4	570.4
Servicio Total de la Deuda como % de Exportaciones	27.9	34.2	25.4	22.2

FUENTE: BANCO MUNDIAL, WORLD DEBT TABLES, EDICION 1988-1989, PARA 1980, 1985; UDAPE PARA LA DEUDA PUBLICA Y CON GARANTIA PUBLICA DE 1987 Y 1988.

NOTAS: a) Incluye deuda garantizada públicamente
b) Exportaciones de Bienes y Servicios
c) Datos al 30/10/1988, más un ajuste estimado de US$ 68 millones, para aproximarse a las cifras de fin de año.

Por otra parte, junto con las medidas de estabilización de Agosto de 1985, el holding de empresas estatales, Corporación Boliviana de Fomento (CBF) fue desmembrado. Las empresas de la CBF fueron cedidas a las corporaciones regionales de desarrollo - que son entidades oficiales pero descentralizadas geográficamente - como un paso intermedio para privatizarlas. Sin embargo, hasta ahora no ha ocurrido ninguna privatización significativa.

El Presupuesto General de la Nación se ha convertido en una pieza clave de la política económica del presidente Paz-Estenssoro. No obstante la importancia asignada al presupuesto, o tal vez por ello, el proceso de su formulacion así como su seguimiento han sido penosos. Previsiblemente, las reformas presupuestarias, que son principalmente de carácter administrativo, tardarán todavía en madurar.

Las medidas para mejorar las recaudaciones no debieran oscurecer la importancia de aquéllas tomadas para controlar los gastos públicos. Hay que destacar que el gobierno boliviano ha obtenido reducciones en su stock de deuda externa y alivios muy importantes en su servicio. Los gastos internos están también fuertemente controlados, especialmente en relacion a los salarios del sector público.

B.- <u>El esquema de transferencias de recursos entre los sectores público y privado.</u>

Para completar la perspectiva de los problemas fiscales, las siguientes características que predominan en las cuentas del sector público (como en varios países latino-americanos con economías fuertemente dependientes de sector primario exportador

de recursos naturales no renovables) deben ser consignadas:

- la deuda pública es casi enteramente externa, es grande respecto al PIB y a las exportaciones, además está denominada en moneda extranjera;

- los ingresos del sector público consolidado dependen fuertemente de los ingresos por exportaciones de las empresas públicas (YPFB y COMIBOL en Bolivia), asímismo las recaudaciones tributarias del gobierno central dependen significativamente de los impuestos a las exportaciones;

- el sector público tiene un acceso preferente a los créditos externos relativamente al sector privado;

- el sector público es generalmente generador neto de divisas, en cambio, la balanza de pagos del sector privado generalmente manifiesta un déficit.

El balance en moneda extranjera en las cuentas fiscales es un componente muy importante del saldo global. Esta característica hace que el sector fiscal sea muy dependiente del sector externo. Conmociones externas como: 1) deterioros no anticipados en los términos de intercambio; 2) moras en los pagos debidos a Bolivia por sus exportaciones; 3) cambios en el signo de las transferencias netas de recursos externos; tienen impactos fiscales significativos que implican generalmente reducciones forzosas en el gasto público y/o expansiones no planeadas en el crédito fiscal por el Banco Central. Cabe hacer notar que la posibilidad de atenuar el efecto interno de las conmociones externas por deterioro en los términos de intercambio o por las moras en las acreencias externas que tiene Bolivia, mediante créditos exter-

nos, está fuertemente limitada por su ya alto alto endeudamiento.

La transmisión de las conmociones externas a la economía interna, mediante cambios en el nivel de gasto público o en las modalidades de su financiamiento, causa tanto presiones inflacionarias como una reducción en el nivel de actividad economica. La caída en el gasto público en 1986, que se observa en el Cuadro 1, se debió tanto al esfuerzo de estabilización como al deterioro sustancial en los términos de intercambio. La presencia de una restriccion externa importante explica también en gran medida el cambio en el financiamiento del deficit global desde fuentes externas hacia fuentes internas durante los años de alta inflación 1982-1985, que se observa en el Cuadro 2.

Las características anteriormente mencionadas de financiamiento del presupuesto implican que las políticas para mantener la crucial competitividad externa (especialmente las cambiarias) tienen repercusiones fiscales importantes -positivas en el caso de devaluaciones- pero, en contraparte, pueden producir transferencias de ingresos, no siempre deseadas o políticamente viables, entre los sectores público y privado. Por la particular estructura del presupuesto fiscal boliviano, salvo si las transferencias netas de recursos al extranjero por el sector público son muy importantes como sucedió entre 1982 y 1984, las devaluaciones reales siempre mejoran la situación fiscal en términos reales. Sorprendentemente, devaluaciones nominales también mejoran el déficit real si no hay un incremento post-devaluación en el déficit en moneda nacional. Fuertes devaluaciones nominales (y a fortiori reales) son generalmente contraccionarias para el sector privado.[5] El carácter contraccionario queda acentuado cuando la devaluación es empleada esencialmente como instrumento fiscal para corregir una situación inicial de grave desequili-

brio.

C.- Crecimiento económico y presupuesto fiscal

Las inversiones públicas seguirán teniendo un papel capital en cualquier estrategia de desarrollo en Bolivia. La provisión de infraestructura básica vendrá previsiblemente, en su mayor parte, del sector público, aunque esfuerzos privados para hacerlo pueden, beneficiosamente, ser alentados. Además, y ésto es más específico a Bolivia, la Constitución y la tradición apuntan a una participación estatal significativa en los sectores cruciales de energia y de minería. Aunque se prevé que esta participación será mantenida en sus limites actuales, se estima que las inversiones públicas requeridas seguirán siendo muy altas.

El financiamiento de las inversiones públicas provendrá esencialmente de dos fuentes: ahorro del sector público y préstamos externos. El potencial de generación de ahorro por las empresas publicas debe ser subrayada.[6] Por otra parte, el ahorro del sector público es necesario como fondo de contraparte a los créditos externos, sin él los créditos externos tampoco podrán ser desembolsados. La posibilidad de emplear mecanismos de ahorro forzoso del sector privado, como por ejemplo el impuesto inflación, para financiar déficits del sector público, aún si estos son generados por inversiones, está excluída dada la experiencia reciente con la hiperinflación.

D.- Problemas fiscales y deuda externa.

Uno de los problemas fiscales centrales está directamente relacionado con la deuda externa pública, cuya magnitud se puede apreciar en el Cuadro 4. La acumulación de esa deuda externa

resulta tanto de créditos contraídos directamente por el sector público, como por avales de créditos para el sector privado. El punto importante que se debe notar es que el tamaño de la deuda del sector público que afecta no solo el nivel de inversiones sino, más grave aún, hace que consideraciones de liquidez determinen exageradamente el proceso mismo de decisión de inversiones publicas.. Con los actuales indicadores de solvencia, el acceso de Bolivia a los créditos externos está limitado a préstamos en términos muy concesionales, pero que son escasos y acarrean un alto grado de condicionalidad, y a creditos de proveedores.

La gestion del stock de deuda y de su flujo de servicio es un problema central. Aún después de las operaciones exitosas de recompra de la deuda de los bancos comerciales, Bolivia requiere todavía un alivio sustancial en el servicio de su deuda contraída con acreedores bilaterales. Se debe hacer notar que una normalizacion financiera será impracticable a mediano plazo si no hay crecimiento economico sostenido, lo que requiere una transferencia neta de recursos a Bolivia, junto con una reducción inicial en el stock de deuda.

II.- LA ESTRATEGIA DE DESARROLLO ECONOMICO Y SOCIAL, 1989-2000

A.-Las características principales

La Estrategia de Desarrollo Económico y Social, 1989-2000 contiene un conjunto comprensivo de políticas económicas que Bolivia aplicaría hasta finales de siglo para promover su desarrollo. Aunque la Estrategia contiene muchos elementos comunes con los ejercicios de planificación que se hacían en América Latina en la década de los sesenta, se diferencia de

éstos por su carácter menos intervencionista y más prospectivo de las avenidas de desarrollo posibles. En la Estrategia se insiste también mucho más en la ligazón entre el crecimiento y la estabilización.

La Estrategia propone una discusión de las maneras de encarar los desafíos de: a) reanudar un crecimiento económico sostenido, con tasas de crecimiento del PIB superiores al crecimiento de la población y con pocas fluctuaciones; b) mantener la estabilidad macroeconomica, con inflación baja y cuentas corrientes de la balanza de pagos viables; c) participar ampliamente en el comercio y los movimientos internacionales de capital; d) conformar una economía menos vulnerable a shocks externos y de oferta, y más adaptable a las condiciones cambiantes del entorno internacional; e) dar saltos de productividad, con una ampliación de la cobertura de educacion primaria y con programas especiales de formación profesional; y, f) crear una base amplia de absorción productiva de la mano de obra.[7]

El desarrollo económico y social necesita estar acompañado de estabilidad política. La estabilidad política deberá asegurarse razonablemente con la conducción de una política de formación de consensos, y con la participación de todos los grupos sociales y de todas las regiones en los beneficios del crecimiento económico. La Estrategia ambiciona ser una propuesta y un documento de base de discusión para la formación de esos consensos.

Aunque el énfasis de la Estrategia está en la producción y en las posibilidades de ganancias de productividad, la preocupación con la satisfacción de necesidades básicas no está ausente; muy al contrario, ocupa un lugar central. El programa de desarrollo social ofrecido en la Estrategia es de gran magnitud; el análisis

de alternativas para financiamiento ocupa por lo tanto un lugar capital en las propuestas.

La Estrategia define claramente las áreas de acción de los sectores público y privado. Le corresponderá al sector privado- en cooperación con el gobierno, cuando surja la necesidad- asumir gradualmente la mayor responsabilidad en los desafíos del desarrollo. Cabe subrayar que la Estrategia tiene una funcion indicativa para el sector privado: le informa acerca del marco y las orientaciones generales de política que seguiría el gobierno, así como de los principales programas de inversión pública que ejecutaría. Fuera de un número limitado de proyectos de gran escala, esencialmente en infraestructura y en los sectores de hidrocarburos y electricidad, la selección de inversiones quedará dejada a la iniciativa privada. Pero, habrá de señalarse que la mayoría, sino todos, los proyectos de inversión pública tienen efectos de rebalse sobre el sector privado. La Estrategia incluye recomendaciones para atraer activamente a las inversiones extranjeras de largo plazo.

El énfasis en un desarrollo con una mucho mayor participación del sector privado, que en el pasado, no excluye un fortalecimiento del sector público en un campo bien delimitado de acción. La Estrategia hace hincapié en la necesidad de mejorar sustancialmente la capacidad financiera del sector fiscal, así como su competencia para formular y ejecutar políticas generales y sectoriales.

Se espera que los sectores más dinámicos en la economía boliviana de los próximos años serán: hidrocarburos, minería, agricultura y manufacturas livianas. La producción minera y la producción incremental de hidrocarburos deberán orientarse principalmente a

los mercados de exportación, mientras que los sectores de la agricultura y de la industria liviana tendrán la triple finalidad de atender a las necesidades internas, especialmente alimenticias, participar en el esfuerzo de diversificación de exportaciones y contribuir al empleo.

La Estrategia considera a las exportaciones como el principal motor del desarrollo económico boliviano, pero insiste en la necesidad de lograr una estructura diversificada. El aumento de las exportaciones de productos agropecuarios y agroindustrailes es un objetivo muy claro. Por otra parte, los acuerdos con el Brasil, firmados en Agosto de 1988, amplían el espectro de mercados para exportaciones.

El énfasis en la explotación de recursos naturales en la Estrategia tiene consecuencias importantes en el sector fiscal. A destacar que el presupuesto en divisas continuará teniendo un peso muy importante en el presupuesto consolidado del sector público. Las recaudaciones en divisas que se pueden generar posibilitarían el financiamiento de los componentes más distributivos de la Estrategia y un gradual desendeudamiento externo a partir de mediados de la proxima decada. Pero se debe recordar que si bien las recaudaciones de éste origen pueden ser muy sustanciales, pueden igualmente ser muy inestables, por lo tanto para incrementar la estabilidad en el gasto público (o simétricamente, para reducir la vulnerabilidad ante shocks externos) deberán continuar los esfuerzos para ampliar la base impositiva interna ejecutando vigorosamente la reforma tributaria en curso.

B.- Los instrumentos

La ejecución de la Estrategia y la obtención de sus objetivos

dependerá fuertemente de la efectividad de sus instrumentos. Los principales instrumentos son:

- Una reforma institucional, cuyo núcleo está dado por el todavía anteproyecto de Ley de Ordenamiento Económico y Administrativo para el Desarrollo. La Ley recogería: 1) las orientaciones y propuestas generales de la NPE y de la Estrategia; y, 2) las garantías para la seguridad de las relaciones contractuales. La Ley serviría fundamentalmente para dar estabilidad a las reglas que guiarán la acción de los distintos agentes económicos.

- Medidas para promover el desarrollo de un sector privado vigoroso. La promoción de la actividad económica del sector privado dependerá de reglas estables, de una gestión macroeconómica correcta, y de un conjunto de garantías contra riesgos no mercantiles. Entre las medidas de promoción, se incluye una propuesta de privatización de las empresas de la ex-CBF. Las iniciativas privadas en las áreas de tecnología, comercialización internacional y provisión de infraestructura básica serán alentadas y complementadas con recursos públicos.

- La descentralización del poder ejecutivo, reforzando los gobiernos departamentales y locales, y redefiniendo las funciones de las corporaciones regionales de desarrollo. Las instancias decisorias y los servicios públicos de educación, salud y transporte serían descentralizados. La descentralización regional del proceso de seleccion de inversiones públicas, pero con coordinación centralizada, será uno de los elementos más importantes para incrementar la eficiencia del sector público. La descentralización hace parte de un

paquete de medidas más amplio, tendiente a la modernización del estado.

- Un programa de inversiones públicas que alcanza a 6,200 millones de dolares para el período 1989-2000, con una contribución externa de 4,900 millones.

C.-Los resultados esperados

El Cuadro 5 muestra las tasas de crecimiento del PIB que se pronostica alcanzar en los próximos doce años, con la ejecución de las políticas derivadas de la Estrategia y considerando el contexto internacional. Cabe hacer hincapié en que las tasas son previsiones, sujetas por lo tanto a márgenes de error, y no son metas. Se proyecta una tasa promedio para el período 1989-2000 de 4.9%. El período 1993-1996 sería de gran expansión, explicable principalmente por la maduración de los proyectos convenidos con el Brasil.

El crecimiento de mediano y largo plazo de la economía nacional requiere de mayores inversiones: la tasa de inversión como proporción del PIB deberá alcanzar el 13.7% en promedio durante 1989-2000. En los primeros años de ejecucion de la Estrategia, mientras la inversión privada tome impulso, la inversión pública tendrá un papel motor y representará 54.8% de la formación bruta de capital fijo. La tasa de ahorro interno, como proporción del PIB, deberá alcanzar un promedio de 12.7 % por su parte en el período 1989-2000. El ahorro del sector público deberá llegar a un promedio de 7.8% para los doce años, y el ahorro del sector privado a un promedio de 4.8%. Nótese que el consumo privado per cápita crecerá a una modesta tasa promedio de 0.2%, debido a la magnitud del esfuerzo de inversión para dar impulso a la econo-

CUADRO 5

PROYECCIONES PRINCIPALES DE LA ESTRATEGIA

	1989-1992	1993-1996	1997-2000	1989-2000
TASAS ANUALES PROMEDIO DE CRECIMIENTO (%)				
Producto Interno Bruto	4.5	5.3	4.7	4.9
Agropecuario	4.1	4.1	4.2	4.1
Minero	11.1	13.5	13.6	12.7
Hidrocarburos	6.9	12.0	6.4	8.4
Manufacturero	7.1	7.6	8.3	7.6
P.I.B per cápita	1.7	2.5	1.8	2.0
Consumo Privado per cápita	-1.3	0.7	1.3	0.2
Empleo Urbano	4.5	4.2	3.8	4.2
Formación Bruta de Capital Fijo	32.6	4.0	2.9	12.4
Ahorro Interno	33.7	11.2	13.8	19.1
Exportaciones a)	21.0	17.7	6.3	14.8
Importaciones b)	25.5	12.8	-1.1	11.9
TASAS PROMEDIO (% DEL PIB) c)				
Formación Bruta de Capital Fijo	12.8	14.7	13.7	13.7
Pública	7.0	6.6	5.0	6.2
Privada	5.7	8.1	8.6	7.5
Ahorro Interno	9.2	12.3	16.5	12.7
Público	4.0	7.6	12.0	7.8
Privado	5.1	4.8	4.6	4.8
RICAP d)	2.8	2.8	2.9	2.8
INFORMACION COMPLEMENTARIA: Tasas Anuales Promedio de Crecimiento (%)				
Población	2.8	2.8	2.8	2.8
Población Urbana	4.4	4.4	4.4	4.4
Poblacion Económiçamente Activa Urbana	4.0	4.1	4.1	4.1

FUENTE: ESTRATEGIA DE DESARROLLO ECONOMICO Y SOCIAL, 1989-2000.

NOTAS:
a) Exportaciones de bienes y servicios en millones de dolares corrientes.
b) Importaciones de bienes y servicios en millones de dolares corrientes.
c) Porcentajes referidos a valores en millones de $b de 1980.
d) Razon incremental capital producto.

CUADRO 6

PROYECCIONES DE DEUDA EXTERNA PUBLICA DE MEDIANO Y LARGO PLAZO

(En millones de US$, saldos a fines de año)

	1989	1990	1995	2000
Total a)	4,353	4,709	7,471	8,134
Deuda Vigente	4,203	4,184	3,353	2,777
Deuda Nueva b)	0	117	1,920	3,087
Financiamiento excepcional de BP (Saldos acumulados) c)	150	408	2,198	2,270
Servicio Total de la Deuda d)	224	418	684	756
Intereses	149	227	421	511
Amortizaciones	75	191	263	245
Transferencias Netas	159	129	183	-753
Deuda de M&L plazo como % del PIB	77.8	77.3	78.5	55.8
Servicio Total d) como % del PIB	4.0	6.9	7.2	5.2
Transferencias Netas como % del PIB	2.8	2.1	1.9	-5.2
Deuda de M/L plazo como % de Exportaciones e)	538.7	501.5	289.8	222.2
Servicio Total (d) como % de Exportaciones (e)	27.7	44.5	26.5	20.6

FUENTE: ESTRATEGIA DE DESARROLLO ECONOMICO Y SOCIAL, 1989 - 2000.

NOTAS: a) Incluye deuda garantizada públicamente.
b) Acumulada principalmente para financiar el programa de inversiones públicas de la Estrategia.
c) Acumulada por el item de financiamientos excepcionales (brutos) de la Balanza de Pagos.
d) Intereses y amortizaciones efectivamente pagadas; excluye amortizaciones sobre deuda acumulada por financiamiento excepcional de Balanza de Pagos, que se asume son refinanciadas cada año.
e) Exportaciones de Bienes y Servicios.

mia.

En el Cuadro 5 se proyecta una tasa promedio anual de crecimiento de las exportaciones (en dólares corrientes) de 14.8% para los doce años 1989-2000. Las importaciones crecerían en el mismo período a una tasa de 11.9% por año, que es alta, pero se explicaría por las importaciones de bienes de capital que implica el esfuerzo de inversión, especialmente entre 1989 y 1992. El esfuerzo exportador (y de manera más general, el énfasis en la producción de bienes comercializables internacionalmente) es crucial para no desvirtuar los resultados de los incrementos en las tasas de ahorro interno.

El incremento en las tasas de inversión deberá ser acompañado de aumentos en su eficiencia. Las Relaciones Incrementales Capital Producto (RICAP) en el Cuadro 6 tienen un valor promedio de 2.8, que son sustancialmente más bajas que en el pasado reciente. Se espera que la productividad marginal del capital aumente tanto por una asignación de recursos hacia los sectores de producción de bienes comercializables internacionalmente, por mejoras organizativas en cada uno de los sectores de producción y del propio estado, y por el mantenimiento de una tasa de inflación baja.. Cabe hacer notar también que se espera que un mayor nivel de inversión privada aumente la eficiencia en el uso del capital.

De acuerdo con el Cuadro 6, si hay un flujo sostenido de recursos en los próximos doce años, que permita sostener las tasas de crecimiento del PIB dadas en el Cuadro 5, la deuda pública externa de mediano y largo plazo crecería hasta llegar a 8,134 millones de dólares a fines de siglo.[8] Las Figuras 1 y 2 ilustran la trayectoria de los indicadores deuda/PIB y deuda/ex-

Figura 1

Deuda Externa Publica de M&L Plazo

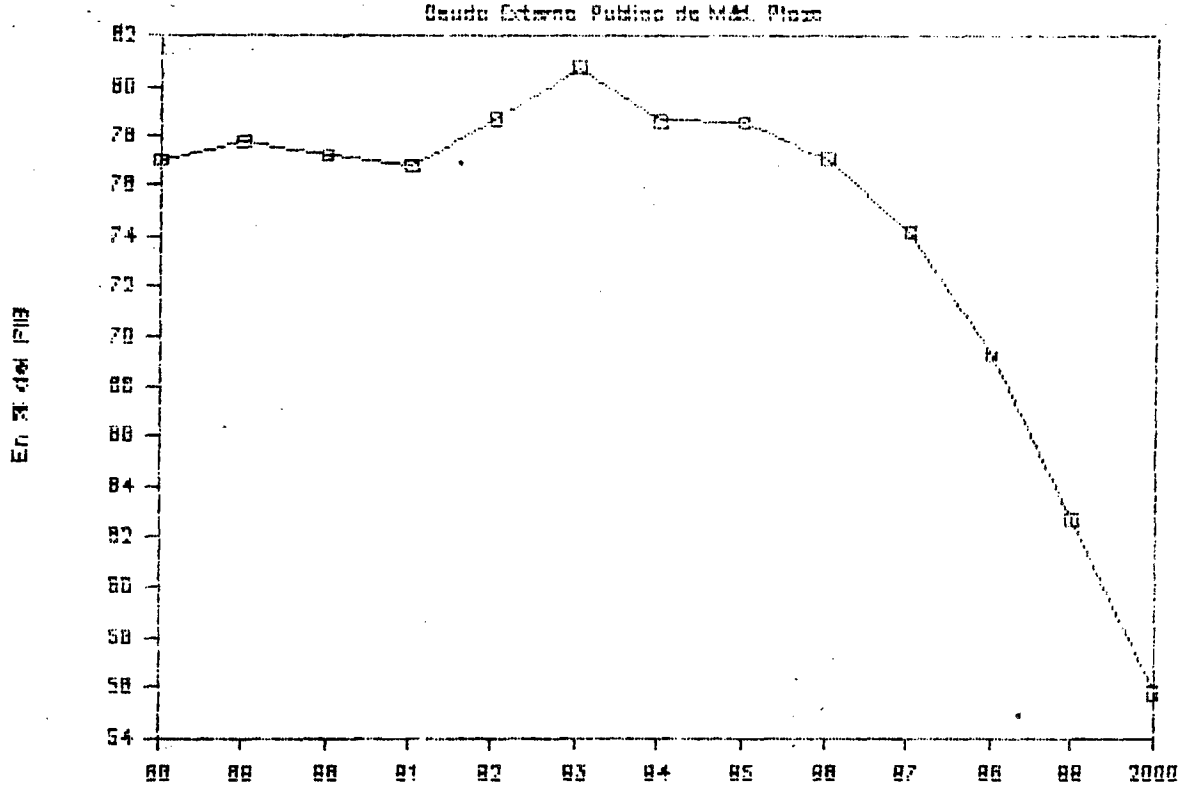


Figura 2

Deuda Externa Publica de M&L Plazo

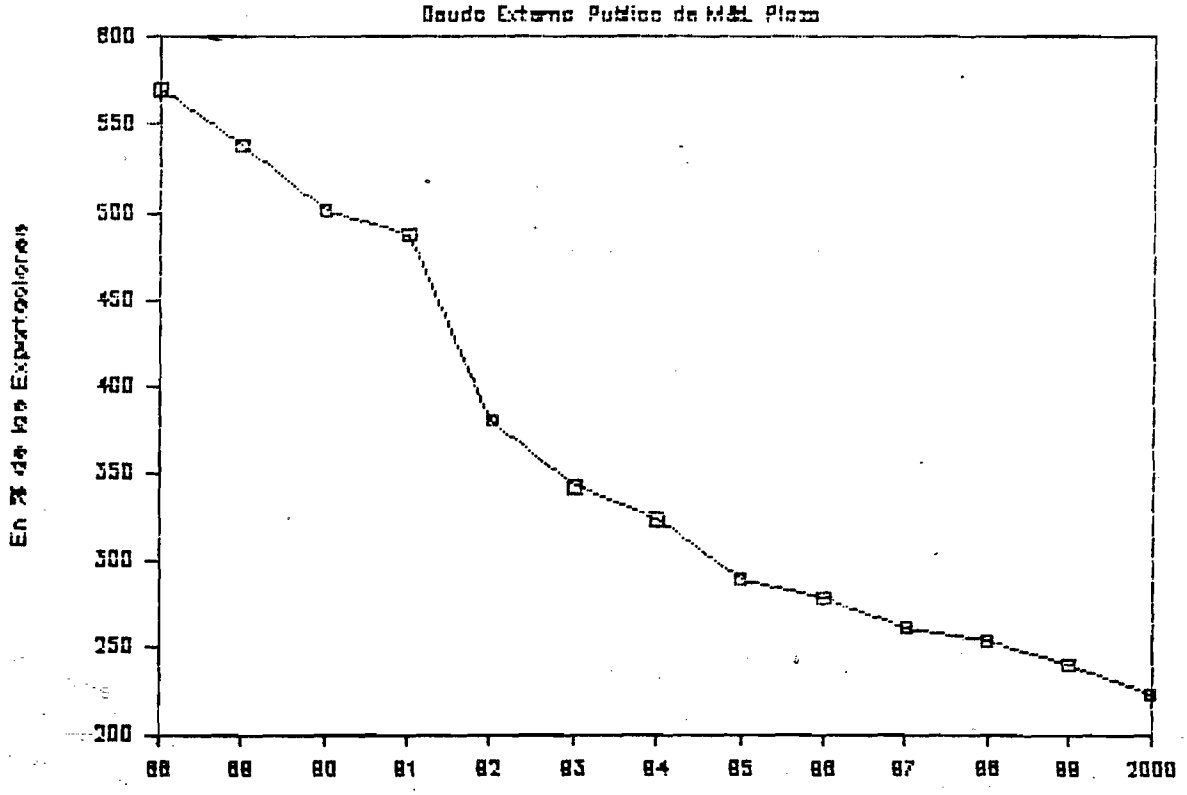


Figura 3

Servicio de la Deuda Externa Pública

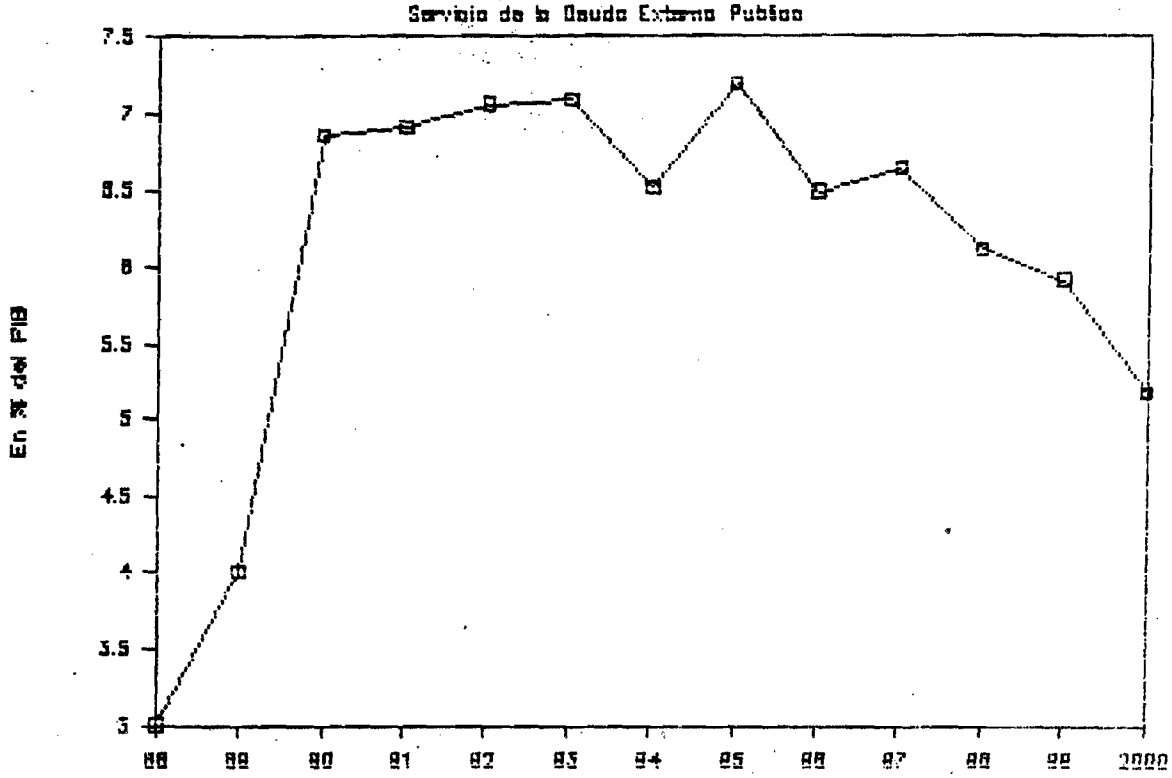
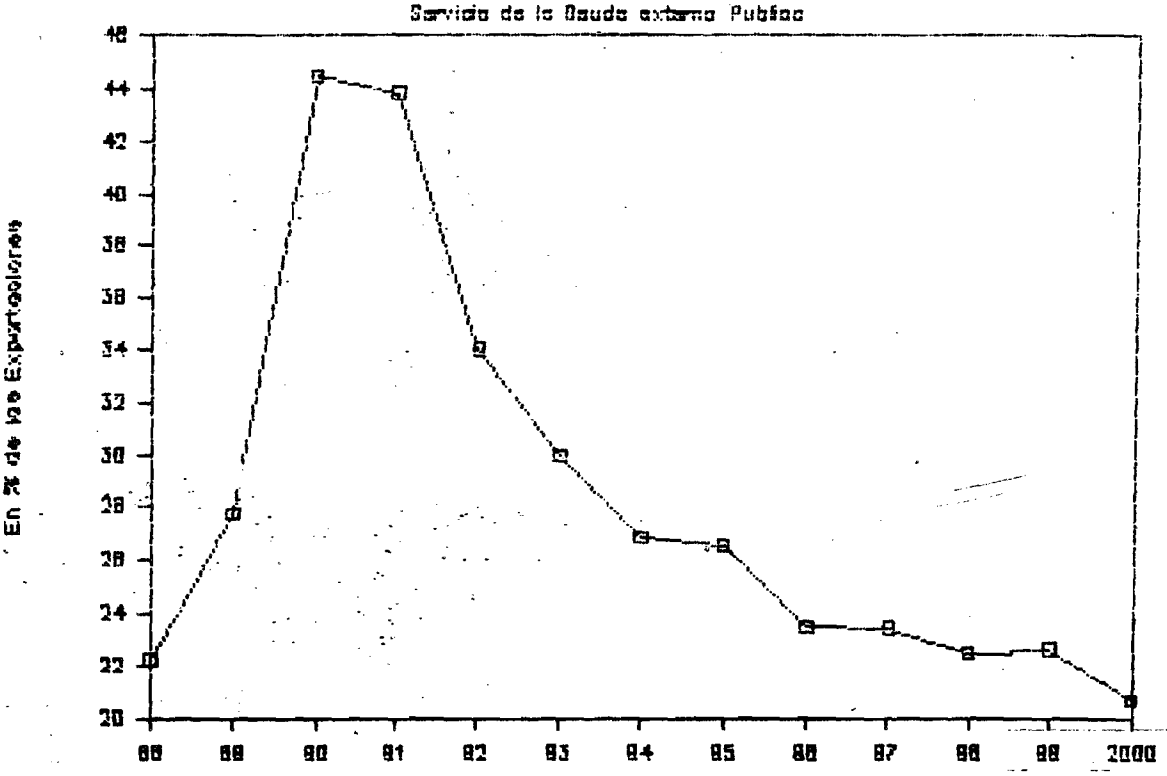


Figura 4

Servicio de la Deuda externa Pública



portaciones coherente con la estrategia de desarrollo propuesta. La deuda en relacion al PIB se incrementaría un poco hasta 1993, para después reducirse muy rápidamente. A pesar de la contratacion de nueva deuda, ésta en relacion a las exportaciones declinaría muy rápidamente, por el aumento previsto de estas ultimas. El indicador Deuda/PIB aumentaria de 77% en 1988 a un máximo de 80.8% en 1993, para después bajar hasta 55.8% en el año 2000. El indicador Deuda/Exportaciones comienza a disminuir desde el principio, comenzando con 570% en 1988 para llegar a 222% en el año 2000.

El servicio de la deuda (intereses más amortizaciones pagados) pasaría de un 3% del PIB y un 22.2% de las exportaciones en 1988, a 5.2% del PIB y 20.6% de las exportaciones en el año 2000. Las Figuras 3 y 4 muestran la evolución temporal del servicio. Si los resultados de la evolucion del servicio de la deuda no parecen espectaculares, se debe al hecho de que en 1988 Bolivia gozó de un importante alivio en esta carga.

III.- EL MODELO DE CONSISTENCIA MACROECONOMICA

A.- Las restricciones

Un modelo de consistencia numérica provee la columna vertebral de la Estrategia. En la definición del modelo, las restricciones a las trayectorias de crecimiento están muy presentes y detalladas. En lo que sigue se presenta una ennumeracion de ellas.

En el tipo de modelo empleado, las inversiones y las ganancias en la productividad marginal del capital son las fuentes principales de crecimiento. La inversión está constreñida por la disponibilidad de ahorro, tanto interno como externo. Bolivia encara una

restricción externa que se traduce en el mediano plazo en un acceso limitado al financiamiento externo, tanto en términos de cantidad como de fuentes.[9] La posibilidad de incrementar la tasa de ahorro interno, más allá de un umbral en relativamente corto plazo, tiene también claramente límites dados por las realidades sociales y políticas. Una estrategia políticamente viable de crecimiento económico tiene también que permitir un crecimiento del consumo privado per cápita. Adicionalmente, como un objetivo de largo plazo, Bolivia tiene que obtener una normalización fundamental de sus relaciones económicas internacionales; para lograrlo se necesita una reducción en sus razones de deuda externa a PIB y a las exportaciones, lo que crea una restricción adicional.

Como paso previo al cómputo completo del modelo de consistencia, dos trayectorias de deuda y crecimiento fueron examinadas. La primera trayectoria es una de relativamente alta tasa de crecimiento del PIB, alto incremento inicial en la deuda externa, tasa de crecimiento positiva pero baja en el consumo per cápita, y una rápida reducción en la relación deuda externa/PIB a partir de 1993, con la consiguiente restauración progresiva de solvencia. La segunda trayectoria puede ser resumida como una de bajo crecimiento del PIB, incremento pequeño inicial en el stock de deuda externa que además sería contraída en condiciones muy concesionales, tasa de crecimiento del consumo per cápita ligeramente negativo, y lenta reducción en la relación deuda/PIB a partir de 1997. Las dos trayectorias están ilustradas en los escenarios A y B del Cuadro 7 y la Figura 5. En el modelo mismo de consistencia, que está basado en proyecciones de desarrollos sectoriales, las diferencias en las tasas de crecimiento del PIB y de la deuda externa en ambos escenarios se deben principalmente, más no exclusivamente, a una ejecución temprana de los

proyectos, capital intensivos, de exportación al Brasil o de una postergación de estos hasta la segunda mitad de la proxima década. El escenario B traduce una estrategia conservadora de desarrollo, con hipótesis implícitas de pequeñas inversiones capaces de ser financiadas con préstamos extranjeros muy concesionales.

Los números en el Cuadro 7 y la Figura 5 fueron obtenidos usando el modelo, ligeramente modificado, propuesto por Selowsky y van der Tak (1986). Los resultados del escenario A parecían ser más atractivos que los del escenario B, pero la estrategia subyacente al escenario A demanda un financiamiento externo más alto al principio y un crecimiento más rápido en la tasa de ahorro interno que en la estrategia que subyace en el escenario B. El problema importante es cúan disponible estará el financiamiento externo en los años que vienen, aunque los montos requeridos no parecen exagerados dado el patron histórico.

Los resultados esperados de la Estrategia, que aparecen en la Seccion II, siguen una senda similar a la del escenario A. En los hechos, las sendas de deuda y ahorro del escenario A han sido derivadas de los resultados promedio dados en la última columna del Cuadro 5. Las diferencias numéricas observadas resultan de las variaciones en el tiempo de los parámetros usados en la Seccion II, mientras que el escenario A se empleó más bien valores promedio de esos mismos parámetros.

B.-La estructura del modelo

La especificación completa del modelo está dada en Arispe (1988). La reseña que se ofrece se limita a los aspectos más salientes. El modelo de consistencia macroeconómica está conformado por 35

CUADRO 7

ESCENARIOS DE CRECIMIENTO SOSTENIDO

(Porcentajes del PIB)

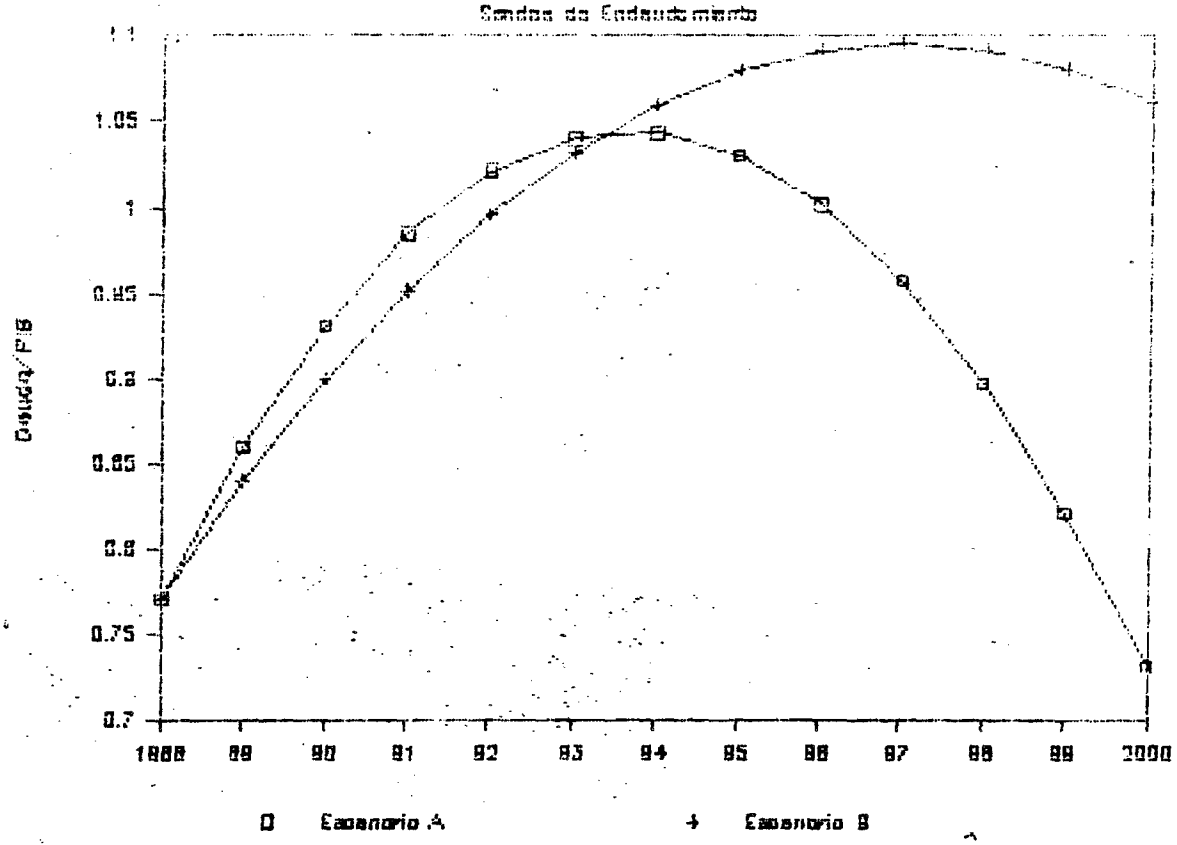
	ESCENARIO A			ESCENARIO B		
Anio	s	b	d	s	b	d
1989	5.8	12.2	86.0	7.2	9.3	84.0
1990	7.6	10.8	93.1	8.1	8.7	90.0
1995	15.9	2.9	103.1	12.1	5.3	108.0
2000	23.6	-6.2	73.1	16.0	1.3	106.2

s = Ahorro Interno/PIB
b = Deficit en Cuenta Corriente/PIB
d = Deuda Publica de Mediano y Largo Plazo/PIB

Escenario A:	Tasa Anual Promedio de Crecimiento del PIB	4.9%
	Tasa Anual Promedio de Crecimiento del Consumo per Capita	0.2%
	Tasa Inicial de Ahorro Interno	3.4%
	Tasa de Interès	5.0%
	Razon Incremental Capital Producto	2.8
Escenario B:	Tasa Anual Promedio de Crecimiento del PIB	3.4%
	Tasa Anual Promedio de Crecimiento del Consumo per Capita	-0.3%
	Tasa Inicial de Ahorro Interno	6.4%
	Tasa de Interès	3.5%
	Razon Incremental Capital Producto	4

Figura 5

Sendas de Endeudamiento



ecuaciones, con todas las variables expresadas en precios constantes de 1980. . El modelo tiene una estructura recursiva en bloques, que se refieren a la generación de producción, a las inversiones, a las importaciones y a la formacion de ingresos disponibles y de ahorros en los sectores público y privado. Las exportaciones son exógenas al modelo y vienen de previsiones sectoriales.

El modelo empleado en la Estrategia es similar en espíritu y en muchas formas al Revised Minimum Standard Model empleado por el Banco Mundial. La principal diferencia reside en que la obtención de trayectorias de crecimiento de la Estrategia , asi como de las necesidades de inversión, se hace a partir de los sectores motores mientras que el modelo del Banco Mundial lo hace en funcion de metas alcanzables de crecimiento del PIB.

El modelo de consistencia macroeconómica ha sido conectado después con un conjunto de proyecciones de balanza de pagos y con un modelo de flujos de fuentes y usos, para tener una visión más completa de los cambios en el endeudamiento externo.

Aunque, como se ha dicho arriba, el modelo de consistencia macroeconómica está expresado en terminos reales, existe sin embargo una retroalimentación de algunas variables nominales, especialmente de aquellas que vienen del lado de la balanza de pagos. Por su parte, la balanza de pagos ella misma está a precios corrientes, pero con varios de sus items derivados del modelo de consistencia macroeconómica. Por último, se completan las proyecciones del modelo de consistencia macroeconómica y las de balanza de pagos con aquéllas referidas a las de deuda externa pública de mediano y de largo plazo.

C.- El sector público consolidado en el modelo de consistencia

El modelo de consistencia macroeconómica no proporciona proyecciones completamente detalladas de las fuentes y usos de recursos del sector público, pero es suficientemente informativo sobre lo que se espera de su desempeño. Una visión del sector público y de las transferencias involucradas puede ser obtenida de las relaciones ahorro/inversión del Cuadro 8 y de las Figuras 6 y 7.

Al principio, la inversión total será guiada por la inversión pública. La tasa de inversión fija pública aumentará junto con la inversión fija total para alcanzar un máximum en 1992. En ese mismo año, la tasa de inversión privada será la misma que la de inversión pública, pero después comenzará a crecer sostenidamente. Hacia el año 2000 , la inversión pública representaría el 34% de la inversión fija total.

El servicio de intereses de la deuda externa introduce un margen sustancial entre las tasas de ahorro interno y ahorro nacional del sector público. Paralelamente, las remesas de utilidades de las empresas transnacionales rebajarán significativamente las tasas de ahorro internas del sector privado a partir de 1993.

Las cifras de superávit/déficit para cada sector señalan sus necesidades de financiamiento y el juego de transferencias de recursos que estaría involucrado. Hasta 1997, tanto el sector público como el privado serán deficitarios, lo que implica que ambos sectores serán financiados por el ahorro externo (con una pequeña corrección para el financiamiento de las variaciones de existencias). Sin embargo, de 1998 en adelante, el superávit en el sector público sería transferido al sector privado, posible-

CUADRO 8

PROYECCIONES DE AHORRO E INVERSION, 1989-2000

(En porcentajes del PIB)

	1989	1990	1995	2000
INVERSION BRUTA	9.9	14.1	16.2	15.2
Inversión Fija	8.6	12.5	14.6	13.4
Inversión Fija Publica	6.0	7.0	6.4	4.5
Inversión Fija Privada	2.6	5.5	8.3	8.9
Variación de Existencias	1.3	1.6	1.6	1.8
AHORRO BRUTO	9.9	14.1	16.2	15.2
Ahorro Interno Bruto	5.9	9.2	12.3	18.5
Ahorro Interno Público	0.5	4.0	7.6	13.9
Ahorro Interno Privado	5.4	5.2	4.7	4.6
Transferencias Externas de Bienes y Servicios NF	4.0	4.9	3.9	-3.2
Pago Neto a Factores más Transferencias Corrientes	-5.1	-4.0	-5.5	-5.6
Intereses Deuda Publica Ext.	-2.7	-3.7	-4.4	-3.5
Otros (neto)	-2.4	-0.3	-1.1	-3.1
Ahorro Nacional Bruto	0.8	5.2	6.8	11.9
Ahorro Nacional Publico	-3.4	0.2	2.5	8.1
Ahorro Nacional Privado	1.2	5.0	4.3	3.8
Ahorro Externo Bruto	9.1	8.9	9.5	3.4
AHORRO/INVERSION				
Superavit/Deficit Sector Publico	-6.4	-6.8	-2.5	3.6
Superavit/Deficit Sector Privado	-1.4	-3.5	-4.0	-5.1
Ahorro Externo Bruto neto de Variacion de Existencias	7.8	7.3	7.9	1.6

FUENTE: Elaboracion del autor con proyecciones de la ESTRATEGIA DE DESARROLLO ECONOMICO Y SOCIAL, 1989-2000

Figura 6

Tasas de Inversión Fija (% PIB)

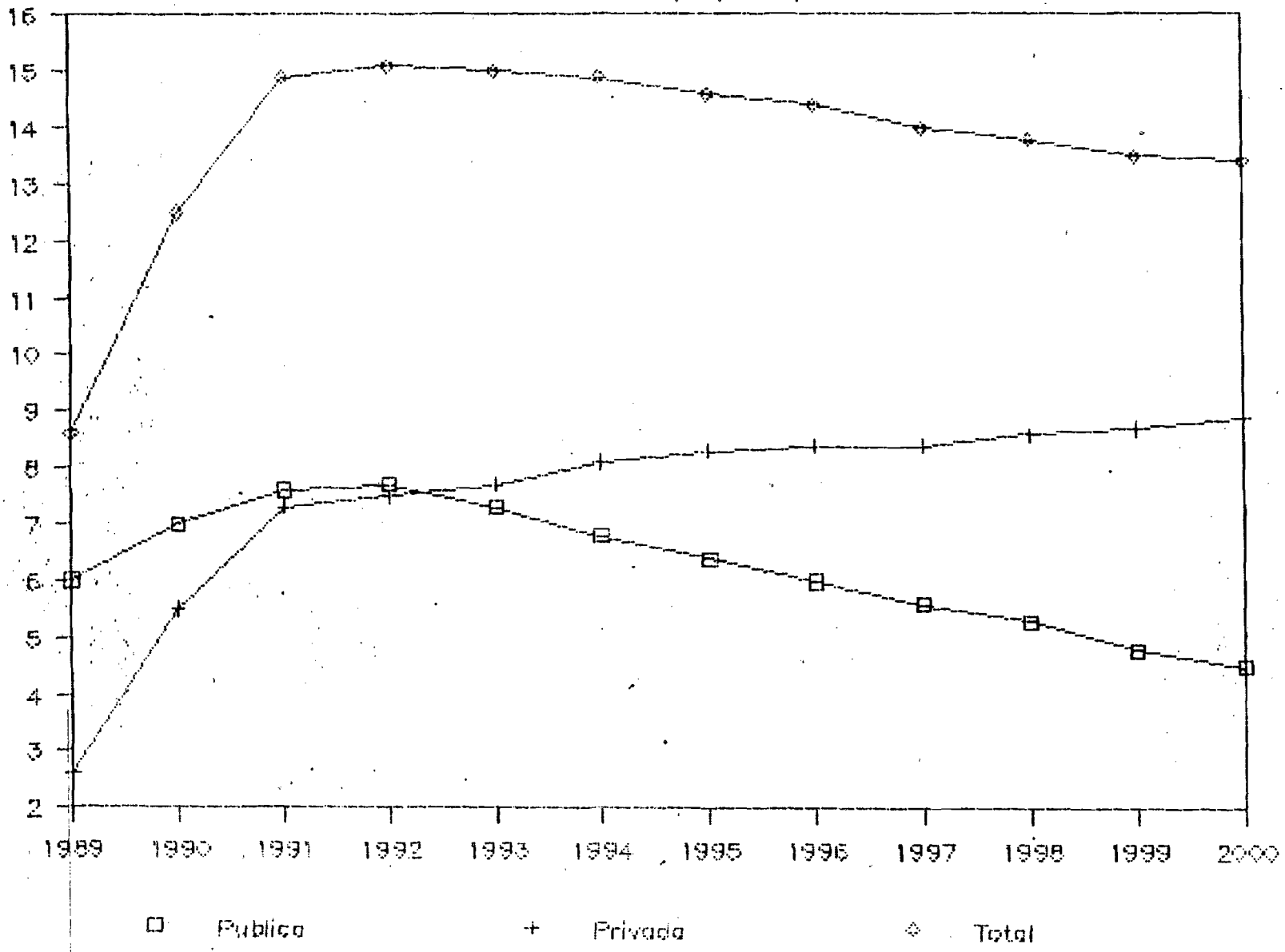
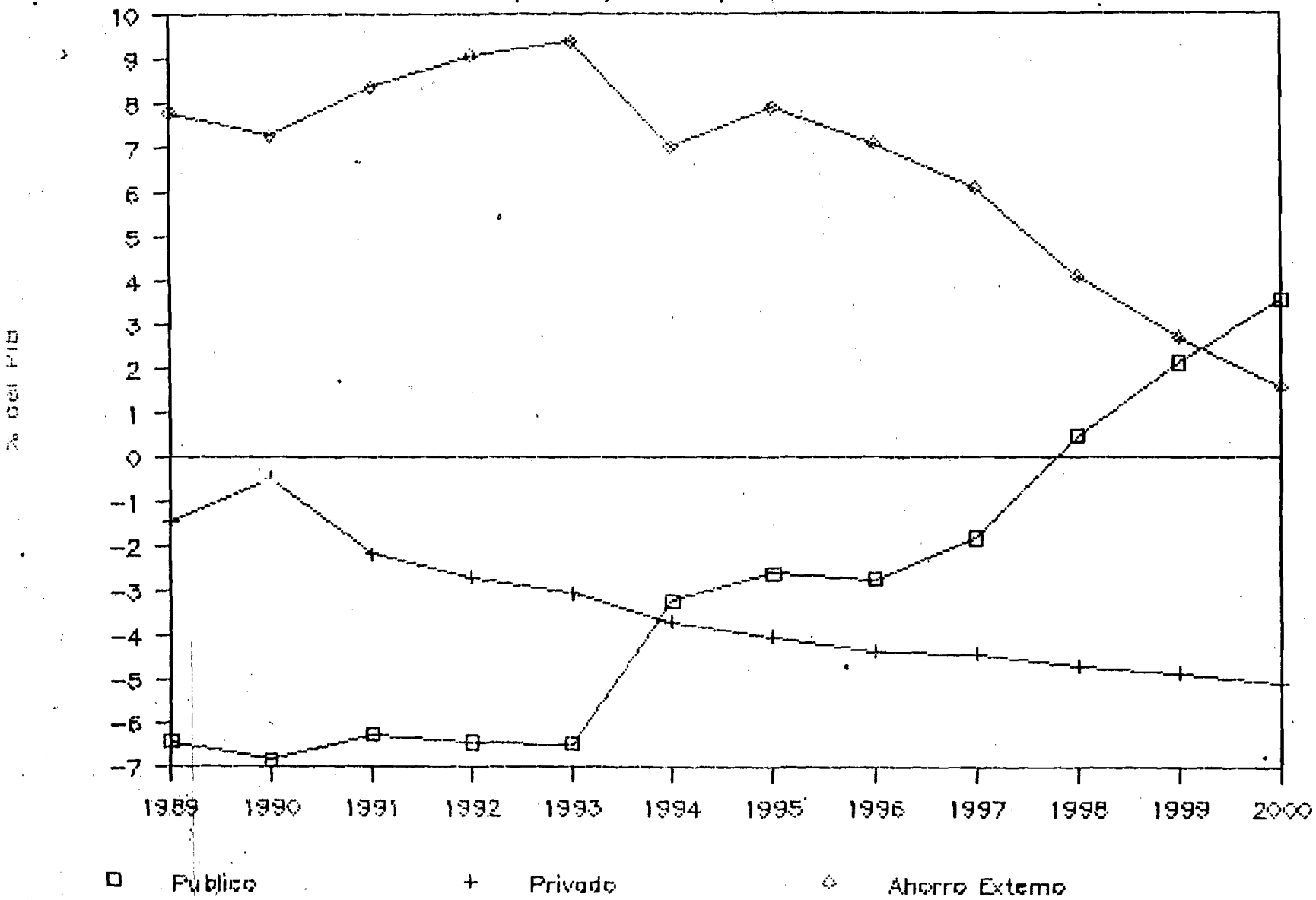


Figura 7

Superávits/Déficits por Sectores



mente mediante el mecanismo indirecto de amortizar la deuda externa pública a la vez que esto es compensado por influjos de capital privado extranjero. En términos netos, se observaría una reducción en el ahorro externo bruto aún si el influjo de fondos externos para el sector privado es sustancial.

Por las consideraciones anteriores, es necesario que el sector público genere excedentes significativos en cuenta corriente para la aplicación de la Estrategia. Una aproximacion empresarial en las empresas públicas es una recomendación frecuente de la Estrategia. La ejecución completa de la reforma impositiva en curso deberá también contribuir a un incremento en los ahorros del gobierno central y, presumiblemente, del sector público consolidado. De manera general, una secuencia cuidadosa de políticas fiscales de corto plazo, basadas en los lineamientos de las reformas en curso (descritas en la Sección I), es fundamental para el desempeño del sector fiscal en función de los objetivos de la Estrategia.

El Cuadro 8 destaca la importancia del ahorro externo. Bolivia necesita una transferencia neta de recursos externos positiva y significativa por lo menos hasta 1996.

IV.- ASPECTOS INSTITUCIONALES Y POLITICOS

A.- Los problemas de coordinación inter-sectoral e inter-regional

Uno de los propósitos principales de la Estrategia es proveer un marco coherente para el presupuesto de inversiones pluri-anual. Además, se podrá encontrar en la Estrategia pautas sobre la cantidad de recursos (posiblemente en porcentajes del PIB) que

tendrán que dedicarse a los sectores sociales como educación, salud y vivienda, para que alcancen sus objetivos más generales.

La Estrategia ofrece un conjunto de lineamientos muy generales para las decisiones de inversión y para el presupuesto de inversiones. La selección de inversiones deberá sostenerse en su coherencia con las orientaciones de desarrollo y con políticas sectorales específicas, así como en el análisis de tasas internas de retorno. Se considera que la consistencia es más importante que los resultados del análisis de tasas de retorno para la seleccion de los proyectos.[10]

Cabe hacer notar que los ministerios sectoriales participaron desde el comienzo en la formulación de las políticas específicas para su sector, así como en la formulacion de sus programas de inversión para su incorporación en la Estrategia. Un equipo muy pequeño, en el Ministerio de Planeamiento y Coordinación, dió las orientaciones generales e hizo un seguimiento detallado de los desarrollos en cada ministerio sectorial. La participación de los ministerios sectoriales fue crucial para darle credibilidad a la Estrategia en la Administración, aún si el procedimiento fue lento por momentos. Dos dificultades principales tuvieron que allanarse: 1) La desigualdad en las capacidades entre los distintos ministerios para formular sus políticas sectoriales y sus programas de inversión, dado que algunos de ellos poseían mucho más experiencia que otros. La debilidad de los ministerios "sociales" fue la que más se hizo notar. 2) La fuerte inestabilidad de los programas sectoriales de inversión, con listas de proyectos de inversión muy variables en el tiempo.[11]

Contrariamente a lo que pasó con los ministerios sectoriales, la participación de las corporaciones regionales de desarrollo fue

escasa. Muy pocas discusiones formales se llevaron a cabo con ellas, aunque sí sus propios planes de desarrollo regional fueron sometidos a revisiones muy cuidadosas.

La elaboración del programa de inversiones para la Estrategia implicó la conciliación de distintas demandas sectoriales. En añadidura y más dificilmente, las demandas regionales tenían también que ser compatibilizadas. El establecer una matriz sectorial/regional requirió un esfuerzo considerable, pero aún así no se pudo dar completa satisfacción a numerosas regiones y sectores.

Los aspectos de economía política de la Estrategia son muy importantes. La Estrategia ha sido elaborada con la intención de ser un documento abierto, que pueda ser sujeto de revisiones, sugerencias y elaboraciones adicionales. El punto que hay que destacar es que la Estrategia es tanto un documento técnico como político que tendrá que ser discutido en distintos foros. El mismo programa de inversiones públicas de la Estrategia, que tiene un horizonte de doce años provée sobre todo un marco y está concebido de tal manera que pueda ser revisado anualmente.

B.- Coordinación de la Estrategia y la presupuestación anual

Los principios básicos de política fiscal de corto plazo fueron definidos con la NEP, antes de la formulacion de la Estrategia, pero ella es importante para proveer pautas para el componente de inversiones del presupuesto anual. El problema es como llegar a que las pautas de la Estrategia en relacion a las inversiones públicas (y en algunos casos a los gastos públicos recurrentes) puedan ser recogidos en los presupuestos anuales. Los presupuestos anuales están casi completamente determinados por las

restricciones financieras que corren en el año, mientras que las inversiones, que generalmente tienen carácter pluri-anual, deben encarar más bien una restriccion financiera inter-temporal. La asincronía entre el presupuesto anual y el financiamiento de largo plazo, creado por las restricciones de liquidez, frecuentemente conduce a inversiones incluídas en el primero debilmente relacionadas con las inversiones deseadas con un horizonte de largo plazo. Es así que la inclusión en el presupuesto anual de un determinado proyecto está frecuentemente determinada más por la disponibilidad de financiamiento que por prioridades bien definidas en una visión de largo plazo. Esta observación tiene particular pertinencia cuando la restriccion externa es muy apretada como es el caso boliviano ahora. Se debe añadir también que para los proximos cuatro años, el peso de los proyectos ya en ejecución dominarán el programa de inversiones de los presupuestos anuales.

En el proceso de formulación del presupuesto aparece claramente, una vez más, la necesidad de coordinación entre la política de crecimiento económico y la de estabilización. Esta última debe contribuir a atenuar las restricciones, especialmente las externas, para que los presupuestos anuales de inversión estén más alineados con las perspectivas de largo plazo de la economía en general y con los ingresos previstos para el sector público en un horizonte que vaya más allá de la gestión.

Si bien es cierto que los techos presupuestarios dados por las restricciones de liquidez seguirán siendo importantes en la determinación de los presupuestos anuales, en cambio, éstos no debieran perder completamente los referentes de largo plazo proporcionados por la Estrategia.

V.- RESUMEN Y CONCLUSIONES PRINCIPALES

El sector público continuará previsiblemente teniendo una presencia muy importante en el escenario económico boliviano por lo menos hasta que el sector privado quede completamente asegurado del contexto macroeconómico y las garantías necesarias para realizar inversiones de largo plazo. Su desempeño, al margen del deseable progreso en las privatizaciones que pueda lograrse, será crucial para el desarrollo de Bolivia y su bienestar.

Para registrar todas las restricciones al desarrollo económico y para encontrar soluciones factibles (y, aún mejor, soluciones optimales), el gobierno de Bolivia ha preparado, una estrategia comprensiva de desarrollo. La Estrategia intenta aunar el análisis técnico con una propuesta más de carácter político; estará sujeta, por lo tanto, a un intenso escrutinio y a una amplia discusión en la opinión pública.

El sector fiscal ocupa un lugar central en la Estrategia, ya que el desempeño de muchos sectores es fuertemente dependiente de los insumos del sector público. Sin embargo, previamente hay que recordar es que la Estrategia contiene una propuesta de reduccion de tamaño del estado en la economía, con un programa de privatizaciones. Hecha esa salvedad, se senalará que el programa de inversiones públicas es decisivo, aunque de ninguna manera es el unico instrumento. Un modelo de consistencia macroeconómica ha sido empleado para delinear las sendas de crecimiento, inversión y endeudamiento. Las proyecciones del modelo están asentadas en perspectivas sectoriales y en el comportamiento esperado de las exportaciones. Si el PIB mantuviera un ritmo de crecimiento promedio anual cercano a 5%, posible gracias a un esfuerzo

sostenido de ahorro interno y externo combinado con ganancias de productividad, no sólo las condiciones de vida mejorarían sino que Bolivia podría normalizar su inserción en los movimientos internacionales de capital.

Las secuelas del endeudamiento externo y varias restricciones institucionales definen un campo de maniobra relativamente estrecho para el comportamiento del sector público. La gestión del stock de deuda pública y de su servicio necesita una aproximación cuidadosa. La reducción de deuda mediante mecanismos y negociaciones complementarios a los ya efectuados permitirá, en lo inmediato, conseguir más holgura en la apretada restricción externa. La solución de fondo, aunque a más largo plazo, vendrá de una recuperacion sostenida del ritmo de crecimiento del PIB, como lo muestran los ejercicios numéricos de este trabajo, y que tiene justamente como precondición un aflojamiento de la restricción externa.

Las restricciones institucionales internas son tan severas como la externa para un desarrollo economico sostenido. Bolivia necesita mantener un record excelente en relación a su gestión macroeconómica. En ese contexto, la política fiscal tiene el doble cometido de coadyuvar a mantener la estabilización y contribuir a la formación de ahorro interno. Errores sustanciales de política pueden afectar las perspectivas bolivianas de recuperación, especialmente las del sector público, puesto que son tan dependientes de un uso muy eficiente de los recursos.

El papel del sector público no es sólo importante en la generación de ahorro, sino que lo es también en la generación de divisas. Si se cumplen los resultados esperados de la Estrategia, el sector público seguirá manteniendo una balanza de pagos

superavitaria. Por otro lado, la balanza de pagos del sector privado tendrá un déficit neto en divisas. En la Estrategia, se ha analizado el conjunto de transferencias a que dan lugar las politicas económicas a partir de esta situacion, con un exámen de las relaciones ahorro/inversión para cada sector. Una vez más esas relaciones indican la gran importancia del sector público, primero para sostener las tasas de inversión, y después para contribuir (indirectamente) al financiamiento adicional requerido por las inversiones del sector privado.

NOTAS

1. Sobre este punto véase, por ejemplo, Sachs y Morales (1988).
2. La importancia de una política de estabilización que contribuya a alinear el ingreso disponible (en este caso del gobierno) con el ingreso permanente, y que permita al gobierno acceder a un menú amplio de opciones de financiamiento para lograr este alineamiento es señalada por Buiter (1983).
3. Varias publicaciones discuten de manera completa el programa de estabilización boliviano en curso. Se puede mencionar, por ejemplo, Sachs (1986), y Morales (1988).
4. Para superar algunas de las dificultades principales, el gobierno ha propuesto recientemente un sistema integrado de administración financiera y control gubernamental (SAFCO) y ha creado una oficina como brazo ejecutor.
5. Esta discusión se apoya fuertemente en los resultados de Marfán (1986) y Marfán (1987).
6. Las principales víctimas de los errores macroeconómicos del pasado reciente han sido las empresas públicas, lo que las ha conducido a la descapitalización. Para superar esta situación es necesario que las empresas públicas cuenten con un sistema correcto de precios relativos y que no sean víctimas de una cantidad de demandas no-económicas. Paralelamente, pero en un nivel más microeconómico, las empresas públicas necesitarán mayores esfuerzos para resolver sus problemas de ineficiencia interna.
7. Bolivia está en el medio de una transición demográfica. Se viene observando, en especial, un rápido crecimiento de las ciudades principales, debido a la migración desde las áreas rurales y de los pueblos mineros. Este crecimiento tiene también como impacto un rápido crecimiento de la población económicamente activa urbana, que estará además compuesta en una alta proporción por jóvenes, con niveles bajos de escolaridad y de calificación

profesional.

8. El sector público boliviano estará limitado a un endeudamiento que tiene que satisfacer las siguientes condiciones: a) servir para financiar inversiones para la produccion de bienes comercializables internacionalmente, infraestructura fisica, y formacion de recursos humanos; b) ser de largo plazo y con componentes concesionales significativos; y, c) originarse en fuentes oficiales bilaterales y multilaterales.

9. Las restricciones pueden aflojarse, en parte, por un desempeño macroeconómico sin falla, calificado por las instituciones oficiales de cooperación financiera internacional.

10. Por supuesto, los criterios de consistencia podrían ser formalmente incorporados en el analísis de tasas de retorno. Empero, esto es generalmente dificil hacerlo y puede implicar un virtuosismo técnico excesivo (y no deseado).

11. La participación activa de la burocracia estatal en la preparación de la Estrategia, así como el arbitraje entre las distintas demandas sectoriales y regionales necesitaba un liderazgo fuerte y la habilidad para conseguir un esbozo de consenso. Sin el compromiso del Ministro de Planeamiento, Sr. Sanchez de Lozada, hubiese sido muy dificil involucrar a otros ministerios en un ejercicio de planificación que tenia tantos elementos de déjà-vu.

REFERENCIAS BIBLIOGRAFICAS

ARISPE, ERLAND (1988). "Sistema de Flujos Macroeconómicos en la Estrategia de Desarrollo Económico y Social". Mimeo. La Paz: Ministerio de Planeamiento y Coordinación, y GTZ. Disponible por pedido escrito a J.A Morales.

BOLIVIA. MINISTERIO DE PLANEAMIENTO Y COORDINACION (1989). Propuesta para la estrategia de Desarrollo Económico y Social, 1989-2000. (Versión Preliminar). Dos tomos. Mimeo. La Paz: Ministerio de Planeamiento y Coordinación.

BUITER, WILLEM H (1983). "Measurement of the Public Sector Deficit and Its Implications for Policy Evaluation and Design". IMF Staff Papers, vol 30. pp 306-349.

MARFAN, MANUEL (1986). "La Política Fiscal Macroeconómica", en R. Cortázar, compilador, Políticas Macroeconómicas. Una Perspectiva Latinoamericana. Santiago, Chile: Ediciones CIEPLAN.

---------- (1987). "Reactivación y Restricción Externa: El Rol de la Política Fiscal". Estudios CIEPLAN, No 22. pp 5-40.

MORALES, JUAN ANTONIO (1988). "La Inflación y la Estabilización en Bolivia", en M. Bruno, G. di Tella, R. Dornbusch y S. Fisher, compiladores, Inflación y Establización: La experiencia de Argentina, Brasil, Bolivia y México. México: El Trimestre Económico. pp 365-409.

SACHS, JEFFREY (1986). "The Bolivian Hyperinflation and Stabilization." NBER Working Paper No 2073 (November)

SACHS, JEFFREY, y JUAN ANTONIO MORALES (1988). "Bolivia: 1952-1986". Country Studies 6, International Center for Economic Growth.

SELOWSKY MARCELO, y HERMAN G. van der TAK (1986). "The Debt Problem and Growth". World Development, vol 14, no 9. pp 1107-1124.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Miércoles, 5 de abril de 1989

Sesión 7

15:00 - 16:00

Tópico: Gasto Público y Ajuste Macroeconómico

Conferencista: Sres. R. Velloso (Consultor, Banco Mundial)
G. Strassert (GTZ)

Lectura Requerida:

1. **Strassert**, Günter, "Gastos Públicos (Ayudas Financieras) en el Contexto del Ajuste Sectorial a Nivel Nacional y Regional en la República Federal Alemana", Abril, 1989.

2. **Lacey**, Robert, "The Management of Public Expenditures: An Evolving Bank Approach", Background Paper for the 1988 World Development Report, World Bank, Washington, D.C. January, 1989.

Gastos Públicos (Ayudas Financieras) en el Contexto del Ajuste Sectorial a Nivel Nacional y Regional en la República Federal Alemana

por

Günter Strassert
Deutsche Gesellschaft für Technische Zusammenarbeit
(GTZ) GmbH

Abril 1989

Ref.: Sesión 6: Reajuste de Gastos Públicos

Gastos públicos (ayudas financieras) en el contexto del ajuste sectorial a nivel nacional y regional en la R.F.A.
(Günter Strassert)

Contenido:

1. Política de gastos públicos por ayudas financieras en el estado confederado
1.1 Programas de ajuste sectorial a nivel nacional y regional
1.2 El sistema de Compensación Financiera como régimen de gastos públicos
1.3 De la política de ayudas financieras
1.4 Ayudas financieras para sectores (actividades productivas)
1.5 Ayudas financieras para regiones (economías regionales)

2. Bases y funciones conceptuales
2.1 El seguimiento del desarollo socioeconómico estructural y el "Informe Estructural"
2.2 Problemas y tareas de la política descentralizada de gastos públicos: el ejemplo de las regiones industriales viejas

3. Advertencias generales

1. Política de gastos públicos por ayudas financieras en el estado confederado

1.1 Programas de ajuste sectorial a nivel nacional y regional

En el sistema confederado de la R.F.A. la implementación del ajuste sectorial, en primer lugar, es de la incumbencia de los Estados (confederados). La concepción de la política de ajuste sectorial está caracterizada por una pluralidad de programas: hay programas en el nivel nacional y en el nivel de los Estados, y en cada nivel los programas se clasifican en programas generales (es decir programas sin vinculación especial ni sectorial ni regional) y en programas particulares (es decir programas con vinculación sectorial o regional). Los programas generales, sectoriales o regionales son programas propios de los Estados o sea programas federales, o sea programas de mancomún entre el Federal y los Estados.

En cuanto a la política general (supra-sectorial) de ajuste sectorial, por ejemplo en el marco de programas para la promoción de empresas medianas y pequeñas o de actividades de investigación y desarollo técnico, tanto hay programas del Federal como programas de los Estados. Con los programas sectoriales, en general, se suele aplicar un financiamiento mancomún entre el Federal y los Estados, particularmente con los Estados afectados de crisis sectoriales y de problemas graves de ajuste sectorial, como, de contrario, el sistema de Compensación Financiera sería sobrecargado (al Sistema de Compensación Financiera véase abajo 1.2).

La política económica regional es un cometido mancomún del Federal y de los Estados llamado "mejoramiento de la estructura regional de la economía". Se trata de uno de los tres cometidos de carácter explícito de mancomunidad que fueron incorporados en la Constitución en el año 1969 como resultado de una discusión sobre el llamado federalismo cooperativo.

Aparte de ese programa siguen existiendo los programas propios regionales de los Estados.
La pluralidad de programas se formó a lo largo de las cuatro décadas de la creación de la R.F.A.
Principalmente, los programas particulares, es decir los programas sectoriales y regionales, pueden ser comprendidos como reacción política a los problemas propios de ajuste sectorial habiendo aparecido en fases distintas del desarollo económico en la R.F.A. Dignos de mención, por ejemplo, son los años de la postguerra de reconstrucción, fases de prosperidad y depresión económica, las diversas fases de crisis sectorial afectando la agricultura (desde mediados de los años setenta), las minas de carbón (desde fines de los años sesenta), la constucción naval (desde mediados de los años setenta), etc.
Superponiendo los procesos particulares en los años cincuenta, sesenta y setenta se llevaba a cabo un cambio estructural a largo plazo, cuyo tipo de desarollo se caracteriza por el traslado, lo primero de todo, del sector primario al sector secundario, y, más tarde, del sector secundario al sector terciario.
La interpretación y evaluación de los programas individuales, incluyendo los programas generales de función como promoción de base en cierto modo, deberían tener en cuenta el contexto particular del desarollo económico.

1.2 El sistema de Compensación Financiera como régimen de gastos públicos

Todos los programas están sujeto a un régimen de finanzas manifestándose en el sistema de Compensación Financiera como una forma de la organización descentralizada del sistema de finanzas.

Los elementos constitutivos son

- la Compensación Financiera Pasiva como modalidad de asignación de las funciones públicas a las Corporaciones Territoriales (el Federal, los Estados, las Comunidades)
- la Compensación Financiera Activa Originaria como asignación de las fuentes de impuestos a las Corporaciones Territoriales, y
- la Compensación Financiera Activa Suplementaria como redistribución del total de los impuestos con el propósito de una nivelación de las capacidades financieras.

La forma designada en último lugar comprende nuevamente tres modalidades:

- la Compensación Financiera entre los Estados, es decir de los Estados en situación favorable de finanzas a los Estados en situación desfavorable de finanzas
- Ayudas Finacieras Complementarias del Federal a los Estados en situación desfavorable de finanzas, y
- la Compensación Financiera de los Estados a sus comunidades con el propósito de una nivelación de las capacidades financieras.

Los Estados donde una crisis sectorial se convierte en una crisis regional, y, con esto afectando otras partes de la económia (por ejemplo los Estados de Nordrhein-Westfalen y Saarland) tienen tendencia al grupo de los Estados en situación desfavorable de finanzas con reclamación de pagos en el marco de la Compensación Financiera entre los Estados. Sin embargo, la situación financiera de un Estado sólo puede ser mejorada por cuenta de los demás Estados. Actualmente, con los diez Estados relevantes (siendo excluido el Estado Berlin como caso especial), ocho son receptores y tres donantes (Baden-Württemberg, Hessen, Hamburg).
Los problemas de ajuste sectorial también hacen efecto en el nivel comunal: particularmente, sufren de una capacidad

insuficiente de finanzas aquellas comunidades donde la situación económica está caracterizada por una crisis de actividades productivas, por consiguente, altos gastos sociales, altas tasas de paro y problemas graves del ambiente.

1.3 De la política de ayudas financieras

Correspondiendo a la temática de esa sexta sesión el lado de los gastos está en primer plano de las consideraciones, según ello, la política de gastos públicos en la R.F.A., en el contexto de la política de ajuste sectorial, se presenta predominantemente como una política de ayudas financieras directas - la forma clásica de las subvenciones. En lo sucesivo se evita el concepto de subvenciones porque todavía están discutidas las modalidades de la definición y del registro (estadístico).

El concepto de las ayudas financieras comprende transferencias monetarias de autoridades públicas concedidas a empresas privadas, tanto para actividades corrientes como para inversiones, sea con el fin de ejercer influencia sobre los precios del mercado, sea para promover la producción, los ingresos o el empleo. Entonces, aparte de las ayudas financieras están incluidos los préstamos y excluidas toda forma de reducción de impuestos.

Del total de las ayudas financieras públicas, a grosso modo, un tercio corresponde al Federal, un tercio a los Estados y Comunidades, y otro tercio a los Parafisci (ERP: Patrimonio especial del Programa Europeo de Recuperación, Comunidad Europea, Fondo de Compensación para la garantía de la venta de carbón - llamado Pfennig de Carbón). Actualmente, el total de las ayudas financieras alcanza el orden de 4.5% de los gastos públicos y 2.5% del Producto Interno Bruto. (Observación comparativa: la importancia de las reducciones de impuestos sobrepasa la de las ayudas financieras).

1.4 Ayudas financieras para sectores (actividades productivas)

La repartición sectorial de las ayudas financieras según el principio destinatario *) muestra, hasta con una subdivisión detallada de los sectores (de 2 - 3 cifras), que casi todos sectores y ramas son receptores de ayudas financieras. No obstante, resulta característica la significante concentración ya tradicional de las ayudas financieras en los sectores del los ámbitos de la política agraria (agricultura), política de energía (extracción de carbón, suministro de electricidad), política de comunicaciones (ferrocarril, construcción naval, construcción aero- y astronautica) y política de construcción de viviendas.
La intensidad de protección, medida por las ayudas financieras en relación al valor añadido bruto, resulta particularmente alta en los sectores ferrocarril, extracción de carbón y agricultura sobrepasando el promedio de la intensidad de cerca de 5%, muchas veces más (por ejemplo ferrocarril: 13 veces más).

*) El receptor de ayudas financieras no corresponde siempre al destinatario, por ejemplo en el caso de la Extracción de Carbón (receptor: empresas de suministro de electricidad) o en el caso de la Agricultura (receptores: empresas de la alimentación y del comercio al por mayor).

1.5 Ayudas financieras para regiones (economías regionales)

Típicamente, la política económica regional (como política de ajuste sectorial en el nivel regional) se basa en la

clasificación dicotoma de la superficie en regiones fomentadas y regiones no fomentadas. Se distingue tres categorías de regiones fomentadas:

- regiones con problemas políticos (con la zona limítrofe a lo largo de la frontera oriental, los Estados Berlin y Saarland)
- regiones con problemas particulares de ajuste sectorial a largo plazo y disparidades pertinentes respecto a empleo, ingresos e infraestructura (tanto regiones rurales como industriales)
- regiones de crisis palpitante con agravación dramática de la situación económica y social como consecuencia de ajustes sectoriales concentrados en esas regiones (desde hace poco tiempo por ejemplo la construcción naval).

Principalmente, las ayudas financieras en el marco de programas regionales pretenden la promoción de inversiones y se refieren al fomento de fundación nueva, ampliación o racionalización de empresas. La importancia relativa de las ayudas financieras regionales en relación al total de las ayudas financieras se presenta insignificante, con una proporción por debajo del 1%. Sin embargo, el fomento no resulta necesariamente ineficaz: se intenta influir la toma de decisión de sitio para empresas privadas por medio de la concentración espacial y graduación de intensidad de los incentivos, esperando que se compensen las desventajas de sitio, y, por consiguiente, se dirijan más inversiones a las regiones fomentadas, incluyendo acabar con el éxodo rural. De hecho, comparando la repartición sectorial de las ayudas financieras en el marco de la política de ajuste sectorial general y regional no se presenta ningún paralelismo, sino cierta tendencia a una diversificación en el nivel regional. De todos modos, cabe decir que la política de ajuste sectorial general más bien implica efectos regionales, como, al revés, la política de ajuste sectorial regional implica efectos sectoriales.

Aparte de la concentración espacial de algunos sectores (ya mencionados) se explica ese fenómeno por los programas generales sin vinculación regional, incluyendo el programa de promoción para actividades de investigacion y desarrollo técnico, dirigiendo las ayudas financieras, ante todo, a empresas grandes fuera de las regiones fomentadas.

2. Bases y funciones conceptuales

2.1 El seguimiento del desarollo socioeconómico estructural y el "Informe Estructural"

Los principios de una concepción de la política estructural del Gobierno de la R.F.A. tiene su origen en la época de finales de los años sesenta (1968), cuando el Gobierno por primera vez emitió una opinión sobre principios de la política estructural sectorial y regional, y, además, presentó dos propios Informes Estructurales (1964 y 1970). Otras opiniones periódicamente se encuentran en los "Informes Anuales de Economía" (Jahreswirtschaftsberichte). Un paso decisivo hacia una fundamentación sistemática, analítica y empírica de la política estructural significó la instalación de un "Informe Estructural" periódico (Strukturberichterstattung), acordado en el año 1976 como complemento de los "Informes de Conyuntura" (Konjunkturberichte) ya instalados antes.
La función del Informe Estructural periódico fue encomendado a cinco importantes Institutos de Investigación Económica (DIW/Berlin, HWWA/Hamburg, Ifo/München, IfW/Kiel, RWI/Essen). Ahora, entretanto, el Informe Estructural se encuentra en su tercer periodo a cuatro años.
Un punto esencial del Informe Estructural es el análisis del subvencionismo en la R.F.A. y el perfeccionamiento de los "Informes de las Subvenciones" (Subventionsberichte) por el Gobierno. Con esto, está trazado el camino hacia un análisis detallado del sistema de finanzas públicas en el nivel

nacional y regional, y hacia un mejor engranaje de la política estructural y la política de finanzas públicas.

2.2 Problemas y tareas de la política descentralizada de gastos públicos: el ejemplo de las regiones industriales viejas

Tareas particulares en cuanto a la administración descentralizada del ajuste estructrual, y, en especial, en el marco del Sistema de Compensación Financiera en el nivel de los Estados y de las Comunidades resultan del problema de la llamada revitalización de regiones industriales viejas. Hasta ahora, la política económica regional fue orientada, como en muchos países, a una diferenciación entre regiones desarrolladas, en general regiones urbanas-industriales, y regiones menos desarrolladas, en general regiones rurales-periféricas. Este tópico, realmente clásico, de la Ciencia y la Política - el modo de ver polarizado el carácter urbano-rural y centro-periferia - hoy día ya no corresponde a la problemática actual, por lo menos en algunos países europeos. Más bien, las regiones industriales viejas se hicieron campo importante de acción de la política estructural en nivel regional. Sobre todo, se trata de los centros antiguos de potencia económica, de mono-estructura y de propensidad al ajuste sectorial, encontrándose hoy día en la fase de decadéncia económica y social acompañada por desindustrialización, desempleo, éxodo urbano, etc.
La revitalización de esas regiones es, por un lado, problema del fortalecimiento de la capacidad financiera de los Estados y de las Comunidades en cuestión en el marco del sistema reformado de Compensación Financiera.
Por otro lado, no se podrá prescindir de la elaboración no sólo de programas adecuados para la revitalización, sino también de formas modificadas de la organización

descentralizada en el sistema político-administrativo con la intención de oponerse a la conservación estructural; fatalmente, se puede averiguar cierta identidad de intereses en la conservación estructural entre empresas dominantes, sindicatos y políticos.

3. Advertencias generales

En general, la instalación de un sistema de información según el modelo de Informe Estructural en la R.F.A. señala un déficit en la Contabilidad Nacional en su función de base de datos para la toma de decisones políticas en el marco de la política económica y social. Cabe añadir que ninguna acumulación y perpetuación de intervenciones y programas públicos pueda reemplazar la elaboración de una concepción propia para una política de ajuste sectorial en el nivel nacional y regional. Un punto esencial de partida hacia la fundamentación analítica o empírica podría consistir en el análisis y el seguimiento del subvencionismo público en su relación con el sistema de finanzas públicas en el nivel nacional y regional. Tales actividades afectan, lógicamente, las autoridades responsables de la coordinación de las actividades sectoriales y regionales. Un Ministerio de Planeamiento y Coordinación, por ejemplo, es responsable de la compatibilidad a nivel nacional de los programas de ajuste sectorial, elaborados por autoridades nacionales y regionales, respecto a objetivos nacionales y restricciones de recursos materiales y recursos financieros, en el marco de los Sistemas Nacionales de Planeamiento y de Inversión.
Un tal ministerio inspeccionaría esta compatibilidad en general sobre la base de un sistema de información y seguimiento de las inversiones y en particular sobre la base de contabilidades detalladas por sectores y regiones. Además, el continuo seguimiento de la compatibilidad deberá ser

diferenciado bajo múltiples aspectos que se refieran al Presupuesto General de la Nación así como a criterios socioeconómicos y ambientales. Condición previa es el análisis detallado del nexo causal entre la esfera de producción y el conjunto de las variables e indicadores socioeconómicos.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

Office of the Vice President
Development Economics
The World Bank
January 1989
WPS 46

Background Paper for the 1988 World Development Report

The Management of Public Expenditures:
An Evolving Bank Approach

Robert Lacey

The key to better management of public spending, including investment programming, lies in the **process** by which programs are identified, prepared, approved, and implemented. Strengthening this process should lead to expenditure programs that are a more appropriate size and are more attuned to overall development goals.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

The Bank is paying increasing, though still unsystematic, attention to the institutional dimension of public expenditure management. This implies analysis of the processes and procedures by which programs are put together with an assessment of the strengths and weaknesses of the institutions involved and the links between them. Advising governments on these aspects requires more expertise than most Bank staff members possess. The Bank should develop staff skills in this area through:

- Better coordination in the Bank of public expenditure reform issues.

- More intensive, systematic staff training, and more contact with academics and other outside experts through such vehicles as seminars.

- Closer collaboration and more systematic exchange of views between operational staff and the Policy, Planning, and Research complex, including incorporation of feedback from the seminars held by the Economic Development Institute.

- A closer working relationship with the IMF, especially the Fiscal Affairs Department.

- Development of a well-designed program of operationally oriented, detailed case studies of specific country experiences (successes and failures) from which to draw lessons for future operations and country and economic sector work.

Addressing these issues may also have implications for the type of lending instrument the Bank uses. Reforms of public spending are usually dealt with through structural adjustment loans, backed up by technical assistance operations — but these may not always be suitable. If major policy decisions are required to bring about important long-term structural changes, a broader, more flexible lending instrument may be more appropriate.

One approach being explored is to finance a time slice of the country's public investment program (either on a sector-by-sector or aggregate basis, depending on the scope of the reforms to be introduced) to support not only more appropriate programs but also institutional and procedural reforms of the ways in which public expenditures are prepared and implemented. This approach could combine quick-disbursing balance of payments support with the longer-term approach needed to encourage institutional reform.

This is a background paper for the 1988 World Development Report. Copies are available free from the World Bank, 1818 H Street NW, Washington DC, 20433. Please contact Lupita Matthiesen, room S13-067, extension 33757.

TABLE OF CONTENTS

	Page
SUMMARY AND CONCLUSIONS	
Introduction	1
Overview of the Bank's Recent Experience	2
The Planning Concept	4
The Macroeconomic Framework	10
Investment Programming and Project Preparation	11
The Link Between Planning and Budgeting	16
Other Aspects of Budgetary Organization	19
The Comprehensiveness of the Budget	21
Classification of Budget Items	25
Budget Implementation and Control of Expenditures	27
More Effective Financial Management Information Systems	31
Coping With Uncertainty	32
Comprehensive Budgetary Reform	35

Annexes

I Management of Public Expenditures: Checklist of Institutional Questions to be Addressed

II Budgetary Reform: Some Country Experiences

III The Budgetary Decision-Making Process

THE MANAGEMENT OF PUBLIC EXPENDITURES: AN EVOLVING BANK APPROACH

Summary and Conclusions

Improving Public Expenditure Management: the Main Issues

(i) Effective public expenditure management has become vital to developing countries in the context of the severe fiscal adjustments of the 1980s. Unfortunately, however, neither the conceptual tools nor the administrative instruments at their immediate disposal have been adequate in equipping governments to meet these challenges. First, on the conceptual plane, financial shortages and a changed view of the role of government have combined with a much more uncertain environment, externally and internally, to undermine the perceived usefulness of long term, comprehensive planning as a development tool. However, this has not yet been replaced by an alternative paradigm. Consequently, in their understandable preoccupation with the short term, policy makers in developing countries may frequently be unaware of the trade-offs between different expenditure patterns within and between sectors. Second, administratively, the increased size and complexity of the public sector had clearly overstretched the management capabilities of many governments even before the crisis of the 1980s. Fiscal constraints have accentuated the management problem through their devastating effect on real wages for many public servants at managerial level. The consequent drainage of talent and damaged morale of those who remain has made it still more difficult for governments to cope with the competing claims made on limited fiscal resources.

(ii) Effective public expenditure management makes heavy demands on government institutions. Each of its sub-activities -- the formulation of the macroeconomic framework, project preparation and investment programming, the link between planning and budgeting, the coverage, preparation and classification of the budget, and budget implementation and expenditure control -- has an institutional and political, as well as a technical or economic, dimension. A review of the experience of many countries trying to address these issues reveals an awesome array of problems which are at least as likely to have institutional roots as technical ones. Economic analysis and forecasting, even in the relatively short term, is often so deficient that it leaves the authorities unprepared for major deviations from the program necessitated, for example, by a substantial external shock. Unable to cope with the uncertainties inherent in the planning and budgetary processes, governments are forced to react

with damaging, ill-thought-out, across the board cuts. Frequently, it will be found that the linkages between the macroeconomic framework and the investment program, and between both and the budget process, are fragile or non-existent. Many governments encounter considerable difficulty in formulating an investment program that is more than an aggregation of wish-lists drawn up by the different spending agencies. Control over the external borrowings of government agencies is frequently less than desirable, and even where this exists, donor pressure can at times undermine attempts to exclude significant but economically unjustifiable capital expenditures from the investment program. Phasing of capital spending is often inadequate or non-existent, while the recurrent cost implications of public investments are rarely taken into account. Classification of budgetary items may not facilitate a policy or objectives oriented approach to public expenditure planning. Budgetary coverage, both in terms of institutions and major categories of expenditure, may be partial, impeding the ability of the core ministries to exercise effective control. On the other hand, the organization of the spending agencies, their technical capabilities for financial and economic analysis, and their linkages with core ministries may be such that an integrated and coordinated approach to revenues and expenditures is, at best, severely impeded. Accounting and financial information systems, which used to work reasonably well, have deteriorated in many countries, and in some cases have disintegrated to the point where they have become inoperable. Their restoration is a prerequisite, though far from a sufficient condition, for strengthened public expenditure management.

(iii) Government responses to these immense difficulties have been, perhaps inevitably, piecemeal. Most of them have concentrated on expenditure control with an inevitably short term perspective. Others, however, have attempted major organizational reforms, combined, in some cases, with wholesale changes to the planning and budgetary systems. Success has been decidedly mixed.

(iv) While tightening expenditure control at the center may be a necessary and valid response, at least in the short term, it is far from synonymous with good public expenditure management. Even when it is accompanied by strengthening of core institutions, care should be taken not to neglect the sectoral ministries and line agencies where institutional improvements are equally vital. There are, moreover, important questions of accountability and autonomy at stake. Strengthened central control carries the danger of overdetailed intervention by core ministries. Long term institutional reform should concentrate on improving the capacities of both core and line agencies to manage expenditures in accordance with the objectives of economic policy. This, in turn, means developing measurable objectives and evaluation systems linked to appropriate rewards and penalties.

(v) In an effort to improve the links between the planning and budgetary processes, the Bank has frequently become involved in recommending or supporting organizational changes with a view to integrating the functions of budgeting and investment planning. These efforts have had mixed success and may, in many cases, be a red herring. While organizational changes are important, they can sometimes be an unsatisfactory substitute for deeper procedural and policy reforms. It is essential not to confuse the two.

(vi) Dissatisfaction with many aspects of public expenditure management has led several governments, sometimes with active support from the Bank and other external agencies, to attempt wholesale reform of the entire budgetary or planning process. Some governments have endeavored to introduce techniques such as program or performance budgeting. While these contain many useful lessons, they should, from an institutional and political viewpoint, be approached with caution. Following a few simple (but frequently ignored) rules will greatly enhance the chances of success for reforms, be they partial or general. They should make the greatest possible use of existing institutions: the grafting of new ones onto traditional structures often serves merely to increase confusion. Reform should proceed gradually and should involve all the principal actors from the outset. The effort needs to be guided by a centrally placed agency responsible for coordinating training and the dissemination of information. New processes and procedures should be tried out in suitable pilot ministries and agencies and gradually extended to the rest of the administration. Moreover, reform efforts need to be carefully planned. They are often costly in terms of the human and financial resources needed to carry them out. Failure to provide for this will undermine the reform effort itself and the credibility of its goals.

(vii) To stand a reasonable chance of addressing the complex institutional and technical issues involved in public expenditure management, governments require an analytical framework which would enable them to forecast and program spending over a three to five year period (updated annually), taking account of both likely resource constraints and the link with the economy at large. Such a framework -- which can be described in summary as Medium Term Expenditure Planning or MTEP -- carries many of the virtues of the comprehensive planning approach to public finance, an area singularly apt to benefit from them, while attempting to avoid the drawbacks. It would contain a macroeconomic framework, linking public expenditures and revenues to other economic variables; projections of the major items of current expenditure; a multi-year, phased public investment program distinguishing between high and lower priority projects; and projections of revenues from tax and non-tax sources as well as borrowing needs. It should also be formulated in such a way as to help policy makers cope with uncertainty by preparing alternative expenditure policy strategies corresponding with different economic and financial scenarios. It would thus help to achieve consistency between expenditures and macroeconomic assumptions as well as placing due emphasis on public expenditure as a policy instrument.

(viii) Although a full MTEP exercise may be beyond the immediate capacity of many governments, it nonetheless provides a consistent analytical framework for expenditure management and a relevant goal towards which to strive. Many of its features have been successfully adopted by a number of countries.

Implications for the Bank

(ix) The importance of the institutional dimension of public expenditure management has become increasingly recognized in the Bank in recent years. The number of structural adjustment and technical assistance operations which address these issues is increasing, especially though not exclusively in Sub-Saharan Africa. More attention is also being paid to them in economic and sector work (CESW). Although it is still possible to encounter major public investment reviews which concentrate almost entirely on the size and composition of the public investment program, with scant regard for overall expenditure management problems, these are now rare. However, Bank work in this area still needs to be more systematic; at the moment, in both reviews and lending operations, there is substantial variation in the scope and depth of coverage given to institutional issues. This may not necessarily be in response to any corresponding variation in the extent of institutional problems in the particular country, but may rather reflect the professional knowledge and interests of the Bank staff members concerned. A more systematic approach to the political and institutional aspects of public expenditure management needs to be routinely built into Bank reviews and operational work. The high institutional content of some recent reviews is an encouraging tendency which should be developed further through training, both "on the job" and otherwise, and through the judicious use of outside expertise.

(x) The institutional dimension of public expenditure management is a highly complex and sensitive area. The multiplicity and diversity of public agencies, interest groups and individuals with a vital stake in the process means that the political dimension is of primary importance. The role of the Bank is thus a particularly delicate one. Governments understandably resent outside interference in such a political area as the allocation of public expenditures. In this context, it is noteworthy that the Bank often finds itself with a more problematic role to play than the Fund. The latter is concerned with the "bottom line" of total revenues and expenditures and the consequent fiscal gap, whereas the Bank analyses not only the size but the composition of public investment and, increasingly, expenditure programs. Experience indicates, however, that the key element to better investment programming in particular, and public expenditure management in general, lies in the <u>process</u> by which programs are identified, prepared, approved and implemented; if the process can be strengthened then this should lead to better programs of a more appropriate size.

(xi) To advise governments on the institutional dimensions of this process requires greater expertise in the practicalities of public expenditure management than most Bank staff currently possess. In the short term this can be partially alleviated by outside expertise. In the long run, a more conscious effort should be made to develop staff skills in this area through:

- more intensive and systematic staff training;

- better internal Bank coordination of public expenditure reform issues. Staff working on a particular country are often not fully aware of similar efforts in the same region let alone elsewhere in the Bank. The potential offered by the reorganized structure for taking more systematic advantage of work carried out at a sector or spending agency level by "project" staff should be more fully exploited. The minimal coordination provided by occasional public expenditure reviews should be replaced by more frequent and regular instruments;

- the development of a stronger methodology, guidelines, and a checklist of questions for the use of operational staff;

- more coordination and collaboration between operational staff and EDI; not only do the courses on public expenditure management offered by the Institute contain valuable material for Bank staff, but they could also be a useful vehicle for obtaining feedback from government participants who are the daily practitioners in this area;

- more extended and intensified collaboration between the Bank and the Fund (especially the Fiscal Affairs Department). The work of both institutions could greatly benefit from more frequent and systematic exchanges of views, regular exchange of documents, participation in missions, etc.

- greater contact with academic and other experts outside the Bretton Woods institutions, as well as participation in seminars, conferences etc.; and

- a well-designed program of operationally-oriented, detailed case studies of specific country experiences (successes and failures) from which to draw lessons for future operations and CESW.

(xii) The lending instrument so far most closely associated with public expenditure reforms has been the SAL, frequently backed up by technical assistance loans of varying effectiveness. It is questionable whether these are always the most suitable instruments. The long-term nature of the issues to be tackled, and the variation in country experience, calls for flexibility in operational approach and style. If major policy decisions are required to bring about important structural changes, then policy-based lending may be the best way to support this; however, it may be more productive, especially from the point of view of sustainability, to use a longer term, broader, and more flexible instrument than the traditional SAL or sector loan. An interesting approach, which is already being explored in some parts of the Bank would be to finance a time-slice of the country's public investment program (on a sector-by-sector, but preferably on an aggregate basis) to support not only a more appropriate size and composition of the program itself, but also institutional and procedural reforms in the process by which public expenditures are prepared and implemented. This could, if carefully designed, combine the appeal (from the Government's standpoint) of quick disbursing balance of payments support with the longer term approach required to encourage and support institutional reforms.

THE MANAGEMENT OF PUBLIC EXPENDITURES: AN EVOLVING BANK APPROACH

Introduction

1. World Bank lending and advice to support institutional and policy reform of public expenditure management is of recent origin and of limited, but rapidly expanding, scope. The area where this concern has been most sharply focussed is on the management of public investment programs. Such programs are frequently a drag on public sector activities and hence in need of attention. However, in seeking to improve the decision-making process with a view, for example, to curbing inappropriate or excessive investment, or ensuring a more economic use of public resources, the Bank has inevitably been led away from exclusive concentration on the investment program *per se* and towards wider expenditure issues. At the most superficial level, this can be seen in the accelerating substitution of public expenditure reviews at the expense of public investment reviews. More significantly, it reflects an increasing awareness that the difficulties of investment programing cannot be dealt with in isolation from the more general problems of public expenditure management, including the budgetary process, the institutional capacity of both core and line agencies, relations between core and line agencies, and the political economy of budgetary reform. This intensifying focus on institutional issues arises from the well-founded belief that reforms are unlikely to be durable unless the related institutional capacity is strengthened. This type of change is often difficult to effect given characteristic shortages of skilled manpower in most developing countries. It therefore requires both a longer time period for implementation than most Bank-supported activities and presents a new challenge in terms of devising appropriate lending instruments. It is leading the Bank into areas of increasing institutional complexity and political and technical controversy where there are no easy guidelines or precise solutions.

2. This paper attempts to address some of these issues in the light of recent Bank experience. Despite the fact that that experience is short, the paper attempts to develop some guidelines for the future direction of the Bank's work in this area. However, the conclusions should be taken as indicative, not only because prescriptions should be tailored to fit each country's circumstances, but also because institutional reform by its nature does not lend itself to strict models or blueprint approaches.

3. The paper begins with a brief overview of the Bank's recent work on public expenditures both in the context of country economic and sector work (CESW) and lending operations. Itis based primarily on the projects and documents listed in Annex I. This analysis indicates the lack of a consistent or systematic approach to the institutional and procedural aspects of public expenditure management. As background to an attempt to develop more consistency, the paper goes on to discuss the Bank's changing approach towards public expenditures, starting with the concepts of economic

planning and public investment programs. It describes how the Bank's concerns have pushed beyond the confines of investment programing into the wider area of the planning and management of public expenditure and from there to the reform of budgetary processes and procedures. This covers not only the link between the expenditure program and the budget, which is the principal administrative instrument for program implementation, but also the budgetary process itself. The paper then discusses some of the difficulties and issues involved in this process, particularly from the political, institutional and procedural standpoints. This is followed by an analysis of alternative approaches to budgetary reform which are evolving outside as well as inside the Bank and which aim to improve the budget's utility as an effective instrument of economic policy. It attempts to offer some tentative operational guidelines based partly on recent experience, and partly on the "state of the art" in some industrialized and developing countries. These are summarized in Annexes II and III, while Annex IV distils some of the main sequential features of the bdugetary decision-making process.

Overview of the Bank's Recent Experience

4. The Bank has traditionally approached public expenditure management issues through three closely interrelated activities: structural adjustment lending operations (SALs), [1] technical assistance, and country economic and sector work (CESW). All structural adjustment loans support, inter alia, a rationalized public investment program, the size and composition of which is discussed with the Bank and included in the loan documentation. In addition, in nearly all cases, the country has entered into a Standby Arrangement or Extended Fund Facility (EFF) agreement with the IMF which normally supports a number of measures to reduce or rationalize public current expenditures with a view to increasing public savings. By the very nature of the agreements concerned, these programs tend to be focussed on the short term. The Fund also automatically requests Bank endorsement of the public investment program for an EFF and, increasingly, for Standby Arrangements also.

5. The extent to which the Bank has gone beyond these "traditional" concerns (size and composition of the investment program plus short-term financial stabilization normally with parallel support from the Fund) varies considerably between SALs. Thirty-six such loans and credits, approved between November 1981 and June 1986, featured rationalization of public investment programs, and most incorporated IMF-supported budget deficit reduction measures. However, few explicitly included institutional or procedural reforms to back them up. The lack of sufficient institutional underpinning carries the danger that programs will not be sustained beyond the short term. Although there have been improvements in public investment programing in most countries undertaking strcutural adjustment programs, the

1/ No specific public expenditure reform loan or credit has yet been submitted to the Board, though some potential operations are in early stages of preparation.

administrative and institutional support frameworks are still fragile. Permanent improvement will require continuing vigilance on all aspects of institutional structure, including retention of capable staff, use of economic criteria for project selection and evaluation in operating agencies, and inter-ministerial planning and budget coordination. In some of the more recent Bank-supported adjustment programs, total public sector expenditures, including both current and investment expenditures, are considered appropriate targets for policy reform.

6. The second principal lending instrument used to approach public expenditure management issues has been technical assistance lending. Unlike the SALs, these loans and credits focus more on long-term, institutional problems which they seek to overcome normally through the financing of temporary expatriate assistance and through training. Typically, they would include strengthening key functions in the core agencies (finance and planning ministries, plus in some cases the central bank or office of the comptroller and accountant general) such as macroeconomic strategy formulation, investment programming, budget preparation and expenditure control, and the establishment of central accounting and monitoring systems. Line agencies are covered more rarely since sectoral management capabilities are frequently the focus of Bank project work. In most cases, the TA projects are too recent to permit judgements concerning success or failure.[2] However, several of them have taken considerably longer to get off the ground than was anticipated at appraisal, reflecting to some extent administrative delays (in finding and appointing expatriate experts, for instance, or completing complicated formalities for the contracting of consultants), but also lack of government interest. This, in turn, reflects some resistance among governments (notably in Latin America) to "studies for their own sake" especially in politically sensitive areas such as budgetary procedures. For those operations more focussed on implementation than on study, it is perhaps unrealistic to expect most governments to undertake deep-seated and politically difficult actions in the absence of more powerful financial incentives than those provided by most technical assistance operations.

7. The third instrument used by the Bank is country economic and sector work (CESW), notably public investment and expenditure reviews, a considerable number of which are performed each year. These activities are evolving in a way which, on balance, shows an increasing concern for institutional issues and a widening of interest from investment to problems of current expenditure management. An analysis of the more recent reviews, prepared by the Bank's Country Econbomics Department (CECEM), shows that several of them address issues such as: (i) the ability to plan and appraise projects; (ii) the decision-making process concerning which projects are included in the investment program; (iii) the ability to monitor and evaluate projects; and (iv) budgetary procedure. However, the coverage and depth accorded to such subjects varies considerably among the reviews: a

---

2/ See, however, Annex III for a partial discussion of the Administrative Reform Project in Jamaica.

few deal with none of them, while the attention given to item (i) and to a lesser extent item (ii) generally exceeds that afforded to items (iii) and (iv). It is clear that there is no consistent or systematic approach to these issues. Some staff question whether the Bank has the expertise necessary to make recommendations in this area and the credibility to follow them up with appropriate lending instruments. Such self questioning is to be expected and is characteristic of most new or rapidly evolving activities which the Bank undertakes.

8. In addition to public expenditure reviews, the Bank sometimes uses its regular reports on the economies of borrowing countries, or similar vehicles, to discuss public expenditure management issues. Again, the coverage given to institutional and procedural problems varies greatly and does not follow any consistent or systematic format.

9. Exceptionally, CESW is used as a tool for detailed Bank collaboration with Government in implementing improved investment programing and budgetary systems and procedures. A leading example is that of Zambia where the CESW approach had the great advantage of direct involvement by Bank staff who had been engaged for some time in an intense policy dialogue with the authorities. However, this is very expensive in use of staff time, [3] and does not, unlike a lending operation, involve the Government in implementation deadlines. Although it may be appropriate to commence with such a <u>process</u> rather than <u>policy</u> oriented approach, in order to build long-term sustainability of the reform effort, this does not, as Zambia's subsequent experience has shown, eliminate the necessity of deep-seated policy level commitment to change.

<u>The Planning Concept</u>

10. The planning experience[4] is immensely varied among developing countries, where more than 300 plans have been formulated during the past 30 years. At the risk of over-simplifying, countries may be divided into four broad categories: (i) those where comprehensive, central medium-term planning has been practiced with the full backing of the political authorities (Eastern Europe plus some countries in South Asia, especially India, and North Africa) and seeks to directly influence private as well as public spending; (ii) those where planning is seen as a means of controlling and directing public expenditure and of setting a framework of active

---

3/ In fiscal year 1985 alone, 51 staff weeks were used in Zambia with a further 28 planned for the next two fiscal years. This does not include the substantial amount of time devoted to these issues in the context of economic missions, preparation of Consultative Group meetings, and the broader policy and sector dialogue.

4/ The discussion in this section draws upon work carried out by Ramgopal Agarwala in preparation of the 1983 World Development Report and subsequently. Much of this is also summarized in his "Planning in Developing Countries: Lessons of Experience" Staff Working Paper No. 576.

cooperation with a strong private sector including foreign investment; here, flexibility and adaptability to changing circumstances are the hallmarks (Korea, Taiwan, Singapore, Malaysia); (iii) those where central plans were formulated but where comprehensive planning was only nominally adhered to by the political authorities often to assist in mobilizing external[5] aid (most of Sub-Saharan Africa); and (iv) those where there is little or no emphasis on central planning and where private investments are guided essentially by price signals arising from a relatively free functioning market (Hong Kong, Thailand, Colombia).

11. Since the 1950s and 1960s, a major change has taken place in the attitude of developing countries towards centralized comprehensive planning, and correspondingly in that of the Bank. In many of the category (i) countries, most notably India, planning, though by no means abandoned, has lost some of its emphasis and unquestioned political support; even in East European countries and the People's Republic of China, there is a tendency towards greater reliance on market forces and individual incentives. Most category (iii) countries have dropped any pretence at taking central planning exercises seriously; Ministries of Planning or their equivalent are still scattered through Sub-Saharan Africa but they are more and more dedicated to the vetting of investment projects and programs rather than the elaboration of self-contained documents providing a blueprint for development. Where such exercises still continue, they are frequently little more than academic with no real political backing. Indicative planning continues in many of the category (ii) countries, especially in East Asia, reflecting the special relationship between the Government and the private sector. However, these plans, although at times technically sophisticated, are not characterized by strict adherence to targets, but by consultation and flexibility.

12. There are a number of reasons for these changes, some of them due to trends in the economics profession itself, and others to the different circumstances and challenges which developing country governments have to face. First, within the profession, the rise of planning coincided with a view[6] that developing countries are characterized by accumulated cultural, social and institutional rigidities, which inhibit or prevent change. Consequently, in economic terms, agents cannot respond readily to price signals and the supply of most goods and services tends to be price inelastic. Hence "getting the prices right" (even if possible) can only be expected to have a limited impact at best, while only determined government action to change the structure of production and trade and to reallocate resources within the economy can bring about modernization and development. Hence the need for governments not only to closely direct economic actions, but to establish and control a wide range of prices of goods and services. Governments responded readily to these economic paradigms since they had the

---

5/ Where, however, several other instruments of a <u>dirigiste</u> approach, e.g. price controls, are applied in a largely <u>ad hoc</u> fashion.

6/ Encapsulated in what came to be called the "structuralist" view of development.

effect, inter alia, of increasing still further the relative status and self-importance of officials already well established in many countries by the bureaucratic mores inherited from the colonial powers.

13. This view of the development process has, in recent years, changed considerably: most economists, within and outside government, now believe that, in developed and developing countries alike, quantities are in fact more flexible and resources more mobile than previously assumed, economic agents do respond to price signals, and markets, despite recognized imperfections and partial failures, tend in many cases to be better allocators of resources than governments. This change in attitude is, to some extent, the child of disillusion. The experience of detailed and comprehensive planning, as a logical corollary of the structuralist approach, was generally a severe disappointment. Even where some targets were achieved this was at the price of stunted growth and feeble institutional development outside the public sector itself. Overambitious planning spawned large public projects, some of which remain a costly burden. Similarly, the growth of a vast array of state institutions to achieve central government objectives encouraged the formation of interest groups which in many cases represent a financial burden on the State and can hinder the execution of development policy. [7] Detailed planning failed to respond to changes in the international economic environment. Even in those developing countries endowed with highly sophisticated economic expertise (e.g. India), analytical techniques and the administrative apparatus proved incapable of coping with the complexity of economic change. In most countries, the institutional framework could not begin to confront the requirements of a serious economic planning effort. Consequent heavy reliance on expatriate expertise further alienated the plans from the national reality.

14. Second, the role of central planning, with all its institutional connotations, received a major blow with the onset of the financial and economic crises which afflicted much of the developing world following the oil shocks of the 1970's. Projections, based principally on the notion that the future would be a slightly modified extrapolation of the past, lost their practical meaning. Moreover, sheer financial survival became the order of the day, and there was, therefore, little scope or desire to see beyond the short term. This affected not merely the concept of medium or long-term national planning but also investment programing and the management of public expenditure in general which now tends to assume an intensely short-term and highly selective focus.

15. While few would question the severe limits to the usefulness of detailed, comprehensive planning, there is a distinct danger that the crisis may make many governments lose sight of its virtues. Partly through ideological change, but mainly through the force of circumstances, the

---

7/ Public enterprises in most of Sub-Saharan Africa are a case in point. See J. Nellis: "Public Enterprises in Sub-Saharan Africa", World Bank Discussion Papers No. 1, 1986.

authorities of many developing countries have de facto resorted to reliance on traditional budgetary methods for allocating resources. Under this approach, it is inevitable that short-term considerations will dominate. Ministries of Finance frequently impose control through the establishment of overall ceilings on government expenditure. If resources are less than anticipated, then the problem is resolved by across-the-board cuts. This implies scant regard for the quality of expenditure composition: since some categories are considered untouchable (e.g. personnel), then it is inevitable that budgetary ceilings, unaccompanied by planning, will lead to a progressive deterioration in the structure of expenditures, in the budget as an instrument of economic policy, and in the quality of government services. This is the pattern which has become depressingly familiar in recent years, especially though far from exclusively, in Sub-Saharan Africa.

16. The approach increasingly favored by the Bank in its dialogue with governments places greater emphasis on programing public, as opposed to total, expenditures within an overall framework of greater reliance on market prices and private sector decision-making. This implies shifting the focus away from some concepts of planning, which were earlier in vogue, and which conjure up a vision of government intervention in private decision-making. It should not, however, suggest a wholesale rejection of the concept and usefulness of planning. On the contrary, it explicitly recognizes that public expenditure programing cannot take place in a vacuum, and that some sort of systematic forecasting framework is a sine qua non for effective public expenditure management. In fact it is the public sector which should attempt to plan its own activities better without, however, trying to plan those of the private sector.

17. While choices in the short run may be severely limited by constraints, both exogenous and endogenous, to the public sector and the economy as a whole, over a longer period choice may become dramatically expanded. Options may emerge concerning not only the composition and size of the public expenditure program, but also between different totals and allocations of current and capital expenditures (some of them functions of the investment choices made), as well as their phasing. Political decision-makers and their technical advisers are frequently unaware of the trade-offs between different expenditure patterns even within, let alone between, sectors. Comprehensive awareness and consideration of these issues entails the coordination of macroeconomic analysis with public expenditure planning and budgeting over, say, a three-to-five year horizon. This coordination process may also be described as medium-term expenditure planning (MTEP), which, in essence, carries many of the virtues of the comprehensive planning approach to the area of public finances, an area which is singularly apt to benefit from them, while attempting to avoid the drawbacks.

18. In outline, the characteristics of an MTEP would be built from the following components:

(a) macroeconomic analysis linking the growth of national income, savings, investment and balance of payments to public expenditures and revenues;

(b) a rolling, multi-year public investment program with phased outlays reviewed annually;

(c) a fiscal plan, including:

(i) revenue forecasts at existing rates of taxation consistent with the macroeconomic assumptions;

(ii) forecast of non-tax revenues (surplus of public enterprises, fees, user charges, etc.) based on macroeconomic projections but without any changes in policy;

(iii) estimation of additional revenues which may be mobilized by, for example, higher tax rates, a different tax structure, or institutional and administrative reforms in tax collection;

(iv) estimation of additional income resulting from changes in the policy framework for public enterprises, public sector pricing policy, charges in the social sectors, etc.;

(v) estimates of resources available from domestic and external borrowing and grants; and

(vi) projections of current expenditure including debt-servicing, defense, administration and recurrent expenditure on development (sub-divided between committed and anticipated discretionary expenditures).

19. Consistency may be insured by establishing balances, year by year, for the plan period, between the sum of domestically generated resources and net inflow of external resources on the one hand, and total public expenditure (including public capital spending and net transfers to autonomous public entities) on the other. Given the inherent uncertainties in forecasting exercises, the trade offs to be considered, and the iterations that would be required to achieve consistency, it would in most countries be more feasible to formulate the MTEP over a three rather than a five-year period. Ideally, it should be a rolling program, updated annually.

20. Clearly, the MTEP exercise is fraught with difficulties. Export volumes and prices, interest rates, and the availability of foreign capital can all vary due to changes in external conditions. Also, governments change, and with them perceptions as to the principal objectives of economic policy. Moreover, in most developing countries, the exercise is "unrealistic" in the sense that if governments were able to formulate, and subsequently adhere to, a multi-year rolling MTEP this would in and of itself be a clear indication that they had their public sector finance problems under control, at least from an institutional and managerial standpoint. It is, nevertheless, useful in providing an analytical framework for public sector expenditure planning, which ensures consistency with macroeconomic assumptions and is itself a benchmark against which existing systems of planning and budgeting may be judged. Moreover, it

greatly facilitates the view of public expenditure as a policy instrument rather than merely stressing the "good housekeeping" aspect of budgeting. Once a government has formulated a policy framework in the context, for example, of a structural adjustment program, this can then be broken down into constituent parts, some of which will likely involve the establishment of targets and the enactment of reforms in the public sector. An MTEP exercise can illuminate the revenue and expenditure implications of achieving these targets, thereby enabling a sharper focus on the extent and depth of the specific reform measures required. It also facilitates analysis of the projected impact of the policy measures on the rest of the economy through the systematic linkage between the public sector variables and the macroeconomic model.

21. The institutional problems encountered in the establishment and successful operation of such a system of reformed public expenditure planning are formidable. For the Bank to be of greater assistance to developing country governments in overcoming them, it is necessary for staff to be fully aware of the issues involved and how they might be tackled. While not neglecting the traditional concerns such as the composition and size of the public investment program, and whether or not major projects are subjected to cost benefit analysis, this does involve going considerably beyond them into areas which are fraught with political as well as institutional difficulties.

22. Each separate sub-activity of public expenditure planning -- the formulation of the macroeconomic framework, project preparation and investment programming, the link between planning and budgeting, the coverage, preparation and classification of the budget, and budget implementation and expenditure control -- has an institutional and political, as well as a technical or economic, dimension. This dimension raises a number of key questions which need to be answered if the potential obstacles to reform are to be more fully understood. The detail with which each issue needs to be addressed will inevitably vary in accordance with each country's circumstances. Frequently, however, it will be found that the linkages between the macroeconomic framework and the investment program, and between both and the budget process, are fragile or non-existent. The demise of comprehensive economic planning is in danger of bringing in its wake a withering of all planning capabilities in many developing countries to the detriment of effective expenditure management. Many governments encounter considerable difficulty in formulating an investment program that is more than an aggregation of wish-lists drawn up by the different spending agencies. Macroeconomic analysis and forecasting, even in the relatively short term, is often so deficient that it leaves the authorities unprepared for major deviations from the program necessitated, for example, by a substantial external shock. Classification of budgetary items does not facilitate a policy or objectives oriented approach to public expenditure planning. Control over the external borrowings of different government agencies is frequently less than desirable, and even where this exists, donor pressure can at times undermine attempts to exclude significant but economically unjustifiable capital expenditures from the investment program. Phasing of capital spending is often inadequate or non-existent, while the recurrent cost implications of public investments are rarely taken into

account. The organization of the spending agencies, their technical capabilities for financial and economic analysis, and their linkages with core ministries are such that an integrated and coordinated approach to revenues and expenditures is, at best, severely impeded.

23. The rest of this paper attempts to analyze these and other difficulties, from the standpoint of identifying the institutional reforms which may be necessary if public expenditure planning is to become an effective policy instrument.

The Macroeconomic Framework

24. When the Bank undertakes a public expenditure review, it normally includes an assessment and projection of the macroeconomic framework for a period of three to five years ahead. This provides not only background and a context for public expenditures, but is also the basis for revenue forecasts. However, it is often unclear from the reviews whether the authorities themselves are capable of carrying out a similar exercise or, if so, whether this is consistent with that of the Bank. To be sure, the review is normally discussed with the government, but this discussion frequently focusses on the results of the projections rather than how they were produced. Moreover, the time lag between the initial review mission and the discussion with the government is sometimes of such duration that the Bank's assumptions may have lost much of their relevance.

25. Institutionally and technically, the Bank should assess: (i) what capabilities exist for macroeconomic analysis in the country concerned; (ii) what agencies are responsible for it; (iii) in what format the projections are produced (e.g. in a medium-term plan, through a forecasting model, through an annual economic report); (iv) whether the model or methodology used is sufficiently flexible to permit consideration of alternative scenarios; and (v) whether it permits the analysis of the impact of alternative expenditure strategies on economic variables. Even where such capabilities exist, institutional factors may impede their usefulness or practical application. Where, for example, are they located within the administrative machine? How effectively do they communicate and coordinate with other parts of the administration? How seriously are they taken by the highest political authorities and by those responsible, in both the core and line ministries, for the preparation of plans and budget estimates? Is there adequate coordination of the efforts of different agencies with consequent consistency of assumptions and results? If the answers to these questions reduce the relevance and effectiveness of plans and budget estimate, what measures are required to correct the situation?

26. A related set of questions concerns the quality of background material and guidance provided to those responsible for planning expenditures. Those Bank reviews which have addressed this issue usually find this of low quality or altogether absent. Again this is by no means confined to the least developed countries: a recent report on a major Latin American country found that no norms were provided to parastatals or spending ministries concerning macroeconomic variables such as the expected

rate of inflation, exchange rate movements, etc. Each agency thus produces its own with resultant inconsistencies which must be resolved, if at all, at a later stage of the expenditure cycle.

27. Finally, what kind of feedback is provided by macroeconomic analysis into the budget execution and monitoring process? Are contingency review meetings attended by forecasters? Are strategic choices analyzed when resources are less than anticipated? If so, by whom? Do the institutions involved have the capacity and the authority to carry their task out adequately? Are governments provided with the necessary information and guidance to react in any way other than simple across-the-board cuts? Again, the answer to these questions is frequently in the negative.

Investment Programing and Project Preparation

28. The institutional arrangements which exist for the preparation of medium-term plans and investment programs vary enormously from country to country, but in only rare cases could they be described as acceptably satisfactory according to the criteria normally applied by the Bank. This is perhaps less than encouraging in view of the immense effort which the Bank has put in over the years to improving public investment programing. This is not to say that these efforts have resulted in unmitigated failure. Some improvements have taken place, especially within the framework of a general economic reform program whether or not directly supported by Bank structural or sectoral adjustment lending. In a considerable number of countries, thanks to financial pressures, public investment expenditures have been substantially reduced to levels more consistent with overall resource availability. To a lesser extent, the composition of programs has also been improved especially where Bank financial assistance has been directly provided. Nevertheless, among the difficulties which remain in many countries are:

(a) Considerable and deliberate overprograming, reflecting an unwillingness or inability to make hard decisions as to priorities. This leads not only to the formulation of programs way out of line with domestic or foreign resource availability, but also to too many projects being started at the same time, excessive dispersion of available skills, slowdowns in project implementation and lower returns from investment.

(b) The lack of criteria for choosing which projects should or should not be included in the program. This has been addressed, with varying degrees of success, through Bank and other technical assistance to both planning ministries and spending agencies. Bank reports contain many recommendations for improved project appraisal capability. Over the years, thousands of officials from developing countries have been trained in analytical methods, through EDI courses and other means. Nevertheless, although no systematic survey or assessment of country practices has been undertaken, it is clear from references in expenditure reviews and other documents that a permanent institutional capacity is being built up only gradually and in a limited number of countries. In

some parts of Latin America,[8] a high level of project appraisal capability has become established in public sector utilities and other implementing agencies to which the Bank has lent; in other countries of the region, the picture is less encouraging. In Sub-Saharan Africa, there have been many attempts to develop project appraisal techniques in core ministries. Despite all this effort, relatively few countries have systematically established procedures or institutional capacity for economic project appraisal at either sectoral or core ministry level. Even in Turkey, a recipient of five structural adjustment loans, a 1985 public expenditure review found "important deficiencies in project preparation and selection even in the case of agencies with high technical competence." Political considerations seems to dominate in project choice. There is still a widespread ignorance and/or mistrust of cost benefit techniques, well justified in many sectors. Such techniques are, perhaps, most widely accepted in transport where they are more refined, and where there is reasonably good knowledge of recurrent cost implications and of trade-offs between capital and recurrent expenditures. In other areas (especially agriculture and the social sectors), such knowledge is less developed and hard data is often difficult to come by. This is not to argue against the use of cost benefit techniques with the appropriate institutional backing; at best, they can lead to vast improvements in public investment programming, and at worst they can be conducive towards a more rational political debate on project choice. Perhaps that partially explains the slow progress in promoting their use. In poorer countries, with a high proportion of donor-financed projects, there may perhaps be more projects subject to economic analysis, though donor pressures to proceed are also strong. In any event, few projects financed by other donors seem to meet Bank standards of analysis.

(c) The lack of priorities and ranking of projects. Governments, together with the Bank, have tried to address this through the formulation of "core" investment programs. An agreement is reached that the government abandon a policy of partially funding all or most projects, and distinguishes between "core" projects which should receive funds under all circumstances and standby projects which are funded only when additional resources are available. It is important to emphasize here that "funding" includes not merely capital, but all current resources required to complete and operate a priority project. "Core" programs should also be concentrated on strategic projects and should exclude white elephants even where funding is assured. However, such programs need to be formulated against the background of consistent overall macroeconomic objectives and should take account of the constraints faced by the public sector and by the economy at large through the balance of payments, etc. Their

---

8/ For example, in Chile and, at least until recently, Panama.

preparation therefore frequently runs up against the same institutional and manpower constraints facing the formulation of macroeconomic strategies. In Sub-Saharan Africa, it is far from unknown for the core program to be hastily prepared by Bank staff, in advance of a Consultative Group meeting, with marginal participation on behalf of nationals.

(d) Lack of coordination among donors and donor pressure for unjustified projects. Theoretically, "core" programs should provide a framework within which donors can agree to concentrate their efforts. However, difficulties can and do arise when a donor's pet project, perhaps already underway, finds itself excluded from the "core" program. Despite much rhetoric to the contrary, there is incomplete recognition of Bank leadership and coordination of donor support for investment programs even when this is institutionalized through Bank-organized Consultative Group (CG) meetings. Examples of successful resistance to donor pressure for economically unjustified projects are not unknown (e.g. in Panama and Chile), though they are still exceeded by failures. Reluctance to accept a Bank leadership role stems from both donor and recipient governments for fairly obvious political reasons. It can only be gradually overcome through increases in the scope and depth of Bank CESW and policy-based dialogue with governments.

(e) Poor coordination between macro-analysis and expenditure planning can also lead to a lack of appreciation of the impact of the general policy framework on the success of a public investment program. In some countries, the opportunity provided by a Bank-supported structural adjustment program has been taken to increase government awareness of inappropriate policies which impose a heavy fiscal burden and devour resources that would otherwise be available for investment. Chief among these are: (i) pricing policies leading to large subsidies which are not only a direct strain on the budget but may also discourage production and hence reduce resources; (ii) substantial and unproductive overemployment in the public service; (iii) inadequate control over the expenditures of local authorities and autonomous agencies; (iv) public ownership of inefficient and loss-making enterprises, established with the intention of remedying market failures or achieving social objectives, but in practice doing neither; and (v) the general incentive and policy framework. If there is, in broad terms, a failure to encourage efficiency through economic incentives, then this will, of course, affect the quality of both public and private investment. Poor private investment decisions can in turn feed back on the public sector through not only fewer resources but also a sense that the public sector "must do everything."

(f) Poor implementation and operation of projects, often due to general underfunding, lack of prior analysis, including identification of interlinkages between projects, and failure to foresee current expenditure implications for operation and maintenance.

29. As a result of the factors listed above, the public investment portfolios of many borrowing countries are less than satisfactory, containing poor quality projects and rates of return well below expectations. Bank dialogue has responded to this by stressing the need to improve the productivity of existing investments, particularly in view of the scarcity of resources for new projects. In some countries, governments have thus been stimulated into placing greater emphasis on maintenance, rehabilitation and changing inappropriate pricing policies, an emphasis made easier by direct Bank support through project or sector lending.

30. Although important partial improvements have been attained in a minority of borrower countries, it is recognized within the Bank that a great deal remains to be done in achieving lasting improvements to public investment planning and programing. Much of this can be summed up under the heading: "the institutional dimension of reform." To begin to address this dimension, Bank staff need to go beyond the programs' size and composition and consider a number of key institutional questions, [9] the answers to which could at least initiate measures aimed at a solution.

31. First, is the planning function adequately coordinated or is it fragmented over a number of institutions? In Egypt, for example, it was found that the Ministry of Planning prepares five-year and annual plans and coordinates and channels foreign aid. The National Investment Bank finances approved projects and monitors physical progress. The Ministry of Finance mobilizes domestic resources for project finance. The Ministry of Economy is responsible for channelling foreign expertise and grants and transfers. Second, if there is fragmentation, why does it exist? Is it because of historical factors, the addition of new functions which overlap with existing ones, or the result of a deliberate decision to split judicial power so that the real authority rests elsewhere? Third, what would be necessary, in the context of each individual country, to achieve greater effective coordination? Could this be accomplished by simple merger or combination of the efforts of existing institutions, or, more typically, is the lack of coordination the result of deeper factors? Fourth, to what extent is each phase of the planning function related to different sets of interest groups with varying political priorities, and how far does this account for what may appear from the outside to be institutional fragmentation?

32. Fifth, it is important to plot the <u>process</u> by which the investment program is actually put together. The first step would be to examine existing laws and regulations; monitoring what occurs in practice is, however, more difficult. Perhaps the best way to do this, which would also answer some of the questions raised in the previous paragraph, would be to track typical investment decisions from their inception to their inclusion in the investment program. This is by no means an easy task and involves understanding and penetration of the governmental decision-making process.

9/ Some already address a number of these issues. However, as stated earlier, there is considerable variation in Bank treatment of them and a notable lack of a systematic approach.

Recommendations at a technical level (e.g. improving project evaluation techniques) would, however, be of little use outside the political context in which they will be applied. It is important to distinguish clearly between the political and technical phases in the decision-making process, so that it becomes as transparent as possible. This will enhance the chances of effective resistance to abuses.

33. Typically, though not exclusively, a project will originate in a sector ministry or autonomous executing agency (e.g. a public enterprise). Are these agencies capable of generating sensible capital expenditure proposals? Are coherent sector strategies developed or is there, rather, a "bottom up" approach to project selection influenced by the availability of donor finance and the political power and administrative skills of a particular minister in getting a project approved by Cabinet before it is properly vetted? What are the capabilities in a sector ministry or executing agency for developing a medium term strategy and for project evaluation, including the practical application of cost benefit techniques? In some cases, there may be no clearly delineated responsibility for such activities. In others there may be a proliferation of such agencies with duplication and overlapping functions impeding the development of a coherent sector strategy. For example, in Zaire's transport sector, planning units were established in each of the major public enterprises responsible for the bulk of the sector's public investments, and in the sectoral ministry. There is, moreover, a transport unit in the Ministry of Planning. The role of each is not clearly defined and differentiated. The resulting overlap in responsibilities results in poor communication, repetition, waste of resources, and an inability to clearly identify and resolve critical issues.

34. A related set of issues concerns the links and division of responsibilities between core and sector ministries. Often there is a tension between them which is far from creative. Some of this is inevitable: sector ministries are driven by technical considerations while core agencies are driven by financial ones. The core/line agency relationship is complex and varies greatly from country to country. Much depends on the financial links -- whether, for example, the line agencies funding comes from the central budget or from its own or independent sources. In many countries, a large proportion of public expenditure is administered by public enterprises, the efficiency of which depends on a greater autonomy and accountability than they are frequently granted. In Turkey, the Government has expanded the use of extra-budgetary funds over which the sector ministries have a greater degree of independent control. The issue, however, becomes problematic when overall expenditure control mechanisms are weak, technical capacity, at both central and sectoral levels, questionable, and political intervention pervasive. This situation often leads core ministries, themselves overstretched, to intervene at a level of detail inevitably incompatible with their knowledge of the sectors and institutions concerned. Factors such as these not only lead to poor management, but defies the principle of autonomy and accountability required at the level of those responsible for implementing and operating projects.

35. Sixth, to what extent do existing institutional mechanisms and incentives impede the translation of broad priorities into coherent expenditure programs? All too frequently government bureaucracies place a high premium on following established procedures even when these conflict with declared objectives, and encourage centralized decision-making while discouraging initiative. There may be a myriad of checks and regulations to prevent improper, wasteful or unauthorized expenditures, which at times can contradict the aim of investing in economically justified development projects. Accountability is often diffuse and there appears to be little concern, even at the highest levels, as to whether targets are met or not. Indeed, a greater premium is sometimes placed on failure to spend alloted sums. This is partly because spending targets are regarded as ends in themselves rather than the means to achieving an objective. This in turn reflects the difficulties involved in establishing measures of output and performance in much of the public sector, and getting all parties to agree to them. Ex post evaluation is sometimes carried out, rather perfunctorily to meet donor requirements, but usually little attempt is made to draw lessons from it to streamline procedures or improve agency performance.

36. In summary, efforts to improve institutional investment planning capabilities should concentrate on:

(a) the coordination of the planning effort among the core agencies;

(b) improvements to the process of investment planning and budgeting, including the ability of implementing agencies to generate and evaluate projects and of line ministries to review them within the context of coherent sector strategies;

(c) improving the link between investment planning and financial allocation through, for example, the establishment of rolling plans to decide on expenditure priorities and the sensible phasing of expenditures; and

(d) strengthening control and scrutiny by the central planning authority to which a project appraisal unit should be attached.

The Link Between Planning and Budgeting

37. One notable trend in most recent Bank reviews as well as in policy-based and technical assistance operations has been a widening of concern to encompass not only investment but public expenditure in general. This explicitly recognizes the importance of the institutional dimension and of an integrated approach and represents a marked departure from the traditional separation of Bank and Fund concerns, with the former focusing on "planning" issues and the latter on "budgeting." This blurring of demarcation lines was inevitable in the context of policy-based lending where it quickly became apparent that the Bank had little option but to become involved in issues pertaining to the whole of public financial management.

38. "Government budgets are the principal administrative instruments through which public investment (or expenditure) programs are transformed into tangible achievements." [10] Unfortunately, few countries, perhaps only one in ten, have a system of multi-year budgeting which would facilitate the integration of multi-year programs with annual budgets. It is also discouragingly true that after great effort has been devoted to formulating an investment plan, the budget, even for the first year following the plan's adoption may bear little or no relation to it. In Sierra Leone, for example, a 1985 review found that "there is no evidence that the overall goals of the plan, sectoral objectives or inter-industry relations are taken into account in preparing the yearly development expenditure budget and in selecting the projects for the sectoral investment programs. Sometimes, a project is included for political reasons in disregard of considerations such as total costs, availability of funds and long run development objectives. In other cases, the availability of funds becomes the determining factor, regardless of the project's repercussions on other sectors, on the balance of payments and on the Government budget." Similarly, in Kenya, it was found that the manner in which new projects have been planned, appraised, approved and included in the budget differs significantly from the pattern stipulated in Treasury circulars and the guidelines for the preparation, appraisal and approval of new public investment projects, despite the existence of a system of forward budgeting designed precisely to provide a link between the development plan and the annual budget.

39. Common reasons for the failure to provide an adequate link are:

(a) "Crosswalk" documents [11] and systems such as forward budgets do not, unlike the regular annual budget, have the force of law. Consequently, less attention is inevitably paid to them by both legislators and civil servants.

(b) Forward budgets are frequently overambitious and try to transfer to the planning and forecasting framework the full complexity of budgetary classification and line items.

10/ Chapter on Public Investment Programs in "Investing in Development: Lessons of World Bank Experience" by Warren C. Baum and Stokes M. Tolbert, O.U.P. 1985.

11/ A "crosswalk document" provides cross references between, for example, two budgets which use different systems of classification. The most common form consists of a matrix which helps the reader to determine where an item (or the portion of an item to be financed during the year in question) in the multi-year planning budget may be found in the annual budget presented to the legislature.

(c) On the other hand, the development plans which should form the strategic basis for budgetary formulation, though specifying general sectoral ceilings, frequently do not contain a consistent and comprehensive list of projects and programs.

(d) The institutional mechanism for interministerial discussions based on project submissions by the sector ministries, and involving both the planning and finance ministries, frequently break down in practice.

(e) For both legal and practical reasons, those responsible for preparing the development plan and (if it exists) the forward budget frequently have less prestige than those who prepare the annual budget which actually determines the allocation of financial resources. Less attention is therefore paid to their work by major actors at all stages of the process.

(f) Those responsible for preparing and executing the annual budget are often subject to overall budgetary ceilings which may have to be suddenly and arbitrarily lowered in response to a drop in resource availability. This inevitably affects the credibility of the planning exercise.

(g) The time available for completing the budget cycle is often barely sufficient and does not make allowance for the more complex requirements of negotiating and incorporating plan targets.

40. In an effort to improve the links between the planning and budgetary processes, the Bank has frequently become involved in recommending or supporting organizational changes with a view to integrating the functions of budgeting and investment planning. These efforts have had mixed success and may, in many cases, be a red herring. While organizational changes are important, they can sometimes be an unsatisfactory substitute for deeper procedural and policy reforms. It is essential not to confuse the two.

41. The approaches taken towards the changes are basically of three types: (i) the planning agency takes over the budget function (Brazil, Korea, Panama); (ii) the budgeting office of the ministry of finance takes over the planning function (Bahamas, Bahrain, Haiti, Mauritania, Kenya, Tanzania and Zambia); and (iii) establishment of budget offices, on the US model, which are organizationally independent of both the finance and planning ministries (Thailand, Philippines, Nigeria). Most of the organizational mergers under (i) and (ii) faced varying degrees of difficulty due mainly to the fact that each agency had developed its own separate identity which it did not lose when integrated with others. Several countries, consequently, reverted to separate budget and planning agencies, while others have gone through a cyclical process, with the separation of functions followed by integration and eventually by reversion to separate agencies again. It is important to recognize that there is a political as well as a technical dimension to this question. The addition or subtraction of ministries and departments from a government bureaucracy sometimes reflects shifts in the political wind and can make reform efforts more difficult rather than easier to sustain.

42. Even in the light of this mixed experience, it remains true that, ceteris paribus, combining planning and budgeting offices under one ministry is likely to improve coordination of expenditure programs. It is not, however, either a necessary nor a sufficient condition. At the political level, moreover, combining finance and planning functions into one ministry may create too powerful a core agency. Much more important than the issue of location are a proper decision-making authority, sufficient trained staff, and an adequate flow of information for the formulation of consolidated public sector budgets. Moreover, a separate planning authority can provide important checks and balances which could be absent if all key core functions were concentrated in one ministry. Chile, which is one of the leading examples of better budgetary administration among developing countries, shows how integration of plans and budgets can be tackled through procedural measures rather than organization mergers: any projects not appraised according to methods approved by the planning agency, and reviewed by that agency, cannot be included in the budget. India and Thailand have also developed successfully operating "crosswalk" procedures. These and other examples should be studied in more depth with a view to applying the lessons learnt to other countries.

43. In summary, both successes and failures seem to point to the following general recommendations. First, the prestige and importance of the planning process should be given full legal recognition. Whichever body is in charge of overall investment programing should have the effective power of veto over which projects are included in the annual budget. Second, if this body is separate from the finance ministry, then there must be very close coordination and cooperation between them. The planners must be sensitive to, and fully cognizant of, the resource constraints facing the government. It is not infrequent that lack of such coordination leads to the preparation of excessively large investment programs which subsequently undermine the credibility of the planning process. Third, the procedures linking the plan to the budget should be kept as administratively simple as possible to avoid overtaxing the institutional and technical capacities available to most governments. Fourth, the process should be organized to allow ample time for full discussion by all interested parties. It may well be that in the final analysis the finance minister or head of government will have to act as arbiter; but if the system is to succeed it is essential that all interested parties fully participate in the preparatory process. Fifth, the ministry or department responsible for the plan should be closely linked, and in close alliance, with that responsible for the annual budget. If this is not the case, then it is inevitable that the exigencies and time pressures of the annual budgeting exercise will take precedence and the exercise will be perceived as a Finance Ministry preserve.

Other Aspects of Budgetary Organization

44. As well as the link between planning and budgeting, and the ability of the planning agency and sectoral ministries to perform their tasks, it is important to focus on the organization of the finance ministry itself to determine whether it aids or impedes the use of the budget as an effective policy instrument. It is of little use recommending, for example, a greater emphasis on objectives to be achieved through budgetary allocations if there is no office in the ministry of finance which is

familiar with analyzing government operations along these lines. At times, the finance ministry may be unaware of the number of civil servants in each of the spending ministries, let alone the activities which they are supposed to be accomplishing (indeed, the spending ministries themselves are themselves unaware of this in a number of countries). Similar ignorance may exist on the price/ volume relationships between items of non-wage current expenditures. Until such basic data gaps are filled, the finance ministry will be unable to do more than crudely negotiate global expenditure ceilings with line ministries. The only information it will have at its disposal will be the previous years' expenditures (perhaps even that may be out-dated), and overall ceilings often based on optimistic estimates of future revenues.

45. A useful start can always be made by carrying out an organizational diagnostic of the finance ministry from the viewpoint of objectives-oriented budgeting. This will swiftly identify both the institutional and information gaps. Frequently, the latter can be partly filled through the installation of electronic data processing systems in both core and line ministries. Many countries have greatly improved public sector financial management through the automation of the wage bill and method of payment (though see paragraphs 64-66 for a discussion of the prerequisites for the successful introduction of automated systems). Institutional deficiencies are rather more difficult to tackle. Even here, however, they may be elements in the existing organizational structure that can be built upon relatively quickly. Most finance ministries include, for example, some sort of inspectorate of finances which is supposed to fulfill internal auditing functions and therefore focus on the operations of spending agencies. Such inspectorates could be strengthened into a new office that examines the desirability and efficiency of government activities in a more integrated fashion.

46. Another problem area which could be initially addressed through an organizational audit of the finance ministry would be that of superimposition of overlapping functions, particularly those of treasury, budget directorate and audit. As with investment decisions, it would be useful to track current expenditure allocations through the system from their initiation to their inclusion in the annual budget. This would likely highlight a considerable number of methodological, procedural and information difficulties.

47. Other institutional factors which affect the efficiency of budget preparation, and which need to be taken into account when proposing reforms are:

(a) The system's "heritage." Procedures and institutional relationships differ according to whether the country's budgetary system is influenced by the traditions of Britain (which tends to emphasize expenditures rather than revenues in the budgetary process as a result of which expenditures can sometimes be presented to the legislatures unaccompanied by revenue estimates); France (strong financial control and a central treasury which is not merely a cashier but also a banker); other European countries

(in the Netherlands and Germany greater reliance on commercial principles of budgeting including depreciation allowances and accrual accounting, in Portugal and Italy a more legal approach with annual specification of budgetary allotments by law); the US (a general budget and numerous trust funds that are not subject to legislative approach); and hybrid systems such as those in Latin America that reflect the Spanish tradition combined with later US influence and the results of individual country experiences. [12]

(b) The budget calendar. As noted above, one of the problems frequently encountered when introducing reforms is insufficient time for the necessary preparation and negotiations. Budgeting is an activity which tends to "bunch" as critical dates (e.g. the submission of estimates to Cabinet or the legislature) approach. [13] The extent to which this can be avoided by stretching the process out is limited, first, by the annual framework and, second, by the fact that data and estimates can swiftly become outdated. Moreover, flexibility is important since estimates are subject to change at each stage of the political hierarchy. Producing a rational policy instrument from this complex exercise presents many difficulties, often compounded by exogenous factors such as a high inflation rate and uncertain trade-based revenues.

(c) The appropriateness of the fiscal year which should take account of factors such as the crop cycle, the annual business cycle, etc.

(d) Adequacy of budgetary circulars and guidelines which are the main instruments available to the core agencies for ensuring that estimates are in accordance with, as a minimum, expected revenue constraints, and, at best, with policy guidelines. Despite their importance, budget circulars can all too easily become routine documents which become notorious for what they do not cover rather than for what they explain.

12/ For a fuller treatment of the implications of different budgetary traditions, see A. Premchand: "Government Budgeting and Expenditure Control," IMF publication, 1983.

13/ As a minimum, the preparation of a budget will involve nine separate processes, each involving substantial demands on institutional and human resources: (i) preparation of budget estimate forms and guidelines by core ministries; (ii) preparation of revenue and expenditure estimates by line ministries and agencies; (iii) review of consolidation of agency proposals by responsible ministries; (iv) transmission of ministry requests to core agencies; (v) negotiations between core agencies and line ministries; (vi) preparation of draft budget; (vii) Cabinet approval of draft budget; (viii) transmission of Cabinet revisions; and (ix) preparation of final budget and its presentation to the legislature (see Annex IV for a fuller discussion).

The Comprehensiveness of the Budget

48. Few developing countries currently prepare a consolidated public sector budget. This failure not only places severe limitations on investment programing and its full integration with the budget, it also reduces the possibility of using fiscal policies for stabilization purposes. A 1980 study of Costa Rica's economic administration noted that some 550 autonomous institutions enjoyed legal financial independence and operated outside the control of the central authorities. Moreover, even within the Central Government, about 10 percent of expenditures took place outside the budget. Some specialized ministries had their own independent budgets while about half of total tax collections were earmarked for specific purposes. In 1979, a major step forward was taken with the setting up of a National Budgetary Authority; prior to that the responsibility for what little central budget preparation and control existed was split between the Ministries of Finance and Planning. Drastic reduction of earmarking, and progress in centralizing and consolidating the budgetary process were major components in Costa Rica's structural adjustment program supported by a policy-based lending operation in 1984.

49. Other examples abound. In Ecuador, the national budget was found to cover only 62 percent of public revenues and 43 percent of expenditures, with the rest accounted for by special funds and autonomous agencies and public enterprises. In Brazil, the growth of autonomous federal agencies and powerful public enterprises progressively weakened the once strong hold which the Federal Treasury had on central government receipts and expenditures. In the Ivory Coast in the late 1970's, the budget was split between the Treasury and two other agencies, while a multitude of extra-budgetary accounts were maintained. In Egypt,[14] a 1980 budgetary reform brought a number of special funds and separate accounts into the central budget, and the current budget was thus unified.[15] However, responsibility for financing public investments was transferred to a newly established National Investment Bank so that there were in effect two central budgeting agencies.

50. Frequently, the budget coverage reflects definitional problems resolved more by custom than by economic considerations. Defining the concept of "public investment" is not, for example, without its difficulties. Should it cover only investment by central government agencies? Should it include only those projects financed wholly or partially through the budget? What about investment by public enterprises?

14/ "Public Finance in Egypt" by S. Ahmed, Staff Working Paper, 1984.

15/ This should not necessarily be regarded as salutory since it may limit the autonomy and accountability of enterprise management.

Or by joint ventures? Should it cover all capital expenditures (as defined by the IMF which excludes only defense[16] but includes office furniture and equipment, as well as police stations, courts and prisons) or only that which is expected to lead to "development"? Even in a narrow "development" context, should investment be defined to include only expenditure on the creation of physical assets, or also other "development" expenditure, e.g. on raising the level of health services or expanding education? Development or investment expenditure often includes some recurrent and operating costs during construction which can easily lead to some current costs continually being hidden under the investment umbrella. Current Bank practice favors defining a public investment program which includes the investments of wholly owned state enterprises but excludes joint ventures except in individual cases where the government share is so dominant that the company is treated de facto as a 100 percent public enterprise. All projects funded by external aid or borrowing tend to be included (except defense), whether or not the resources are channelled through the government budget. In addition, the program usually covers the government's entire capital budget irrespective of any evaluation of its developmental impact. This at least has the operational advantage of consistency with IMF definitions. Current expenditures on "developmental" items such as health and education, or on the supply of agricultural inputs, are usually excluded from the investment program except where the country has a medium-term development plan; in such cases, all expenditure included in the plan as developmental is admitted into the investment program. This latter point is yet another reason why the Bank's interest has evolved beyond the purely investment concept to a wider concern with public expenditure as a whole.[17]

51. On the institutional level, the achievement of full budget coverage is far from easy. In the case of state enterprises, government marketing boards, or officially sponsored but financially autonomous development agencies, it is first necessary to define, as precisely as possible, the financial relationship between these entities and the State. This definition must include not only direct flows of funds but implicit subsidies or charges brought about by government policy as well as an updated and economically accurate picture of the entity's balance sheet and current financial operations. This is frequently a difficult technical exercise which taxes the quality of available data to the hilt. In many lesser-developed countries this data is largely unavailable to government despite the existence of elaborate rules and regulations "obliging" entities to provide the information on a systematic basis. In Zaire, for example, the government is only provided with the accounts, frequently unaudited and inaccurate, of the largest and most important public enterprises some 18

16/ Defense "capital" spending is essentially consumption and should therefore be placed above the line.

17/ One useful distinction is that between discretionary and non-discretionary expenditures. The former would include not only capital spending per se, but also recurrent items other than, say, debt servicing obligations and (at least in the short run) the civil service wage bill.

months after the event; for the lesser enterprises there are often no accounts at all. The usual result is that the full implications of the government-public enterprise relationship are not appreciated by the core ministries until a financial crisis occurs. Then governments find their ability to restrain the budget deficit hampered not only by commitments to subsidies and public enterprise pricing policies, but also by non-payment of debts between public entities, declining working capital (which must be supplemented by the Treasury), cumulative losses, non-payment of interest, and finally effective default on loans necessitating central government intervention to assume the debt service burden.[18]

52. Nevertheless, extending budgetary coverage to autonomous agencies, and especially to public enterprises, should be undertaken with great care. The full unification of public enterprise budgets with that of the central government is both unnecessary and undesirable since it violates the principle of operational autonomy without which greater efficiency is difficult if not impossible to achieve. Coordination consistent with the proper degree of autonomy could be improved through the following measures:[19]

(a) ensuring the adoption of a uniform budget year (with the possible exception of those entities whose revenues rely heavily on crop cycles, e.g. marketing boards);

(b) preparation of entity budgets in advance of the central budget, and in consultation with the Treasury;

(c) effective central government control over external and domestic borrowing by autonomous entities, except for those competitive enough to obtain funds without a government guarantee;

(d) inclusion of major autonomous agency investments in the public investment program;

(e) explicit provision in both central and entity budgets for all receipts and payments anticipated between the government and public entities; and

(f) a system of cash flow monitoring and forecasting permitting the revision of budgetary estimates of transfers at least on a six monthly basis.

18/ See A. Premchand: op.cit. for a fuller treatment of these issues.

19/ Most of these elements have been suggested by the Bank in its dialogue with governments concerning reforms to the institutional mechanisms for monitoring and evaluating state enterprise performance. See especially M. Shirley: "Managing State-Owned Enterprises," Staff Working Paper No. 577, 1983.

53. Clearly most countries have as yet been unable to institute most of these measures, though important partial successes have been achieved. In Zaire, for example, Bank technical assistance has been instrumental in establishing a debt control agency which has vastly improved central government's ability to control and monitor public enterprise external borrowing. Similarly, in Thailand, Bank advice was an important element in establishing better monitoring of public entity borrowing. In some Latin American countries, most notably Chile and (until recently) Panama, core ministries are able to exercise effective budgetary and administrative control over all public sector expenditure.[20] In these countries, fully integrated and consolidated public sector accounts are produced annually, cash flow information is generated, and the state of public finances may be easily monitored on a quarterly if not a monthly basis. In Sub-Saharan Africa, Botswana was found to have "a well ordered and effective system for the formulation, preparation and execution of its annual budget .... The crucial relationship between (the recurrent and development) sectors of the budget are appreciated in Botswana and this was a major factor in the remerging of the planning function with finance in 1970."[21] Moreover, the government exercises effective control "over a small, manageable number of parastatals." In each of these "success stories" Bank and Fund technical assistance and/or financial support were important contributory elements.

Classification of Budget Items

54. Irrespective of organizational structure and the role of the different tiers in the planning and budgeting process, Bank experience shows that reclassification of traditional budget categories is necessary if the budget is to become an effective tool of development policy. These traditional categories, which still have a surprisingly tenacious hold in a wide range of developing and industrialized countries, were established primarily as a basis for legislative oversight and a source of information about the end uses of each unit's expenditure. The classification is usually into items like salaries, equipment, supplies and services, etc., and shows what each organization is authorized to spend under each heading. They yield almost no informaton on the objectives of spending such as, for example, raising the level of literacy in a certain area or providing another with irrigation.

55. One of the most common devices used to address this issue has been to divide the budget into a recurrent and a capital or development budget. The former would include all "consumption" items while the other would ideally include not merely investments in infrastructure but all expenditures which might contribute to development. As noted earlier in

---

20/ Though whether this power is appropriately utilized is another question.

21/ Nimrod Raphaeli, Jacques Roumani and A.C. MacKellar: "Public Sector Management in Botswana: Lessons in Pragmatism," Staff Working Paper No. 709, 1984.

connection with the question of budget coverage, conceptual and definitional difficulties have sparked a good deal of controversy concerning such a separation of the budget. Supporters of the dual budget claim that it enables a clearer identification of the uses of borrowed funds and also a stronger focus on the importance of generating current account savings as a policy goal. Opponents argue that it places too much emphasis on infrastructure investments as the basis for development. There is, moreover, increasing concern within the Bank about frequent government failure to provide sufficient domestic resources to projects and other purposes deemed essential for development. This refers not only to matching capital funds but also to recurrent funds for the successful operation and maintenance of completed projects.[22] However, this failure would seem to argue in favor of rather than against the separate accounting and budgeting of capital and current expenditures. Although controversies abound on the merits of different classifications and measures of capital outlays, a separation would certainly facilitate a systematic approach to both the "local currency" problem of matching capital allocation and the "recurrent cost" problem. It also makes it easier to avoid the "camel's nose" syndrome: the allocation of a certain manageable sum to a project in the first year, the phasing of which involves far larger expenditures in years 2, 3, etc. when the girth of the camel makes itself felt. This can only be avoided through a system of multi-year budgeting and the use of a common system of classification for the investment program and the capital and budgets. Bank efforts should focus more on assisting governments to classify their budgets in such a way that the public investment program and other development spending can be tracked through line items of appropriation and expenditures.[23]

56. In practice, the choice of whether or not to consolidate capital and current budgets has important institutional as well as accounting implications. These concern, above all, the respective roles of the finance and planning ministries as discussed in paragraphs 40-42 above. In Zambia, for example, control of not only the investment program, but also of the capital budget, was vested in the Planning Commission, while the Ministry of Finance controlled the recurrent budget only. This provided the Planning Commission with the authority to promote its own vision of capital-led development, while relegating the Ministry of Finance to a less important

---

22/ This "recurrent cost" problem has been examined in depth by Peter Heller in "The Problem of Recurring Costs in the Budgetary and Planning Process" (1982). He proposes a proforma for project summaries which would be used to extrapolate associated current cost requirements or, alternatively, the calculation of sectoral ratios based on historical data. There have been several cursory, and a few detailed, checks of such ratios by Bank missions which have found them on balance unstable. However, the Bank could usefully carry out much more detailed research in this area.

23/ This is seldom achieved in practice though some countries such as India, and more recently Thailand, have devised "crosswalk" documents between program and budget items.

accounting function. Under the guise of moving towards budgetary consolidation, de facto control of capital expenditures was transferred to the Ministry of Finance, while the Planning Commission was given the largely theoretical authority to plan the allocation of the complete budget. This was an essential first step towards the eventual goal (still to be achieved) of unifying the closely linked functions of planning, budgeting expenditure control and evaluation.

57. As with so much else connected with budgetary reform, reclassification is clear and simple on the conceptual plane, but complex when it comes to implementation. Within each ministry, when the classifications that civil servants have become accustomed to change, disruption and some resentment are inevitable. Also, politicians and senior functionaries may feel threatened by the greater transparency and "orientation towards objectives" implied by a reclassification exercise. This will occur even when current classification is properly coded in a manner which permits automation. In many countries, however, this is not the case. Not only is the classification and coding system inadequate from a functional standpoint, it is sometimes so haphazard that it cannot be automated. In Morocco, for example, the codes attached to ministries and line items change each year. Any modification in a ministry's or department's political status involves a change in its coding. There, as in many other countries, reclassification along development-oriented lines will be a major exercise which will have to be preceded by detailed work at individual ministry level to bring the current system into order. Once this is done, electronic data processing can be introduced. This is essential to allow flexibility in adjusting and updating budgetary classifications to reflect changing policies and circumstances.

Budget Implementation and Control of Expenditures

58. So far the discussion has focussed on the concepts, procedures and structures for the formulation of investment programs and budgets. Of equal or greater importance, however, are the problems of budget execution and program implementation. Bank approaches to this have been from the standpoint of two objectives: first, the timeliness and adequacy of the flow of budgeted funds to executing agencies and, second, the effectiveness of treasury control over public expenditures and enforcement of spending limits. There is, of course, a tension between these two objectives which manifests itself particularly strongly during periods of financial crisis.

59. The first approach is exemplified by experiences in the agricultural sectors of Zaire, Kenya and Madagascar which illustrate in useful detail the process of authorization, disbursement and monitoring of public expenditure. In all three countries, delays in the release of funds were found to be a major factor affecting project implementation, resulting in under-spending of budgeted amounts. Systematic monitoring of expenditure was rare and budgets were seldom revised during the course of the year.

This is not always due to the treasury's delayed release of budgeted funds as an instrument in dealing with financial crises. Sometimes, budgets themselves are unrealistically formulated in terms of real resource availability. In Morocco, a recent review of public expenditure found that of the investment expenditures voted by the legislative authority, just over half were incorporated into the spending plans of executing agencies authorized by the Treasury, and that of these latter amounts slightly less than half (i.e. about a quarter of the original appropriations) were actually spent.

60. In the absence of carefully implemented institutional and procedural reforms, severe financial constraints will always militate against orderly project implementation. Tightly controlled release of budget funds becomes inescapable when IMF conditionality imposes quarterly (or even in some cases monthly) spending ceilings. Of course, in principle, once budget allocations are properly approved and made, the responsibility for implementing the budget, along with the requisite freedom to do so, should rest with the spending agency. However, for this to be compatible with stringent and strictly applied spending limits, it would be necessary for these agencies to be equipped with adequate financial management capability. This is an issue on which substantially greater Bank attention should be focussed. Few would dispute that, except in the short term, tight central control is counterproductive because it is impossible for central agencies to comprehend the full spectrum and detail of government operations. However, greater freedom for spending agencies would have to be matched by a degree of accountability, not merely for executing and monitoring of spending but for the achievement of results, which few at present would be capable of assuming. Bank assistance needs to be directed towards building up sectoral financial management capability to estimate and monitor costs, to fulfill program tasks within specific cost ceilings, and to help governments devise measures to ensure accountability.

61. Ensuring a timely flow of funds for specific program and project implementation is, however, only one of the aspects of expenditure control. An equally important requirement is the reinforcement of the core ministries' ability to exercise control over public expenditures as a whole; indeed, in the short run, given the severe financial constraints under which most borrowers operate, the greater attention must be focussed on the core agencies. In order to minimize the damage to development objectives caused by revenue shortfalls and general financial austerity, it is important that the capacity for control of expenditures be extended beyond the ability to enforce global spending limits to that of influencing the <u>composition</u> of expenditures in accordance with development priorities.

62. In many countries it is nonetheless necessary to recognize that even the first of these abilities is sorely absent. It would be no exaggeration to say that the issue of expenditure control is usually the

most important and difficult problem area in the budget cycle. Whereas budgeting procedures per se can be at least marginally improved without encountering formidable political obstacles, it nearly always requires considerable political determination, administrative skill and time to institute solid control procedures for all major outlays. To assist governments in this difficult task, it is necessary to become familiar with current procedures and the "rules of the game," both theoretical and practical, which regulate them. Key questions which should be addressed include:

(a) How many categories of expenditure are there which require separate procedures for making commitments and issuing payment orders, and how many different agencies are involved? In Zaire, for instance, there are at least eight different expenditure tranches (four of them involving different categories of remuneration), the control of which (commitments and payments) is the responsibility of 12 different institutions.

(b) What percentage of total commitments does the finance ministry control? Again, in Zaire, the ministry controlled only about 30 percent, essentially those for the operating expenditures of the line ministries and the small proportion of total capital expenditures financed out of the central government budget. Wage and salary commitments of the Presidency, the military and government-financed political institutions escape the ministry's remit entirely.

(c) How many separate budgets are there? In several countries, commitments are made by semi-autonomous institutions without any participation on the part of the Finance Ministry. Nevertheless, the operating expenses of these institutions are frequently financed by government, often through an annex to the main budget or in a separate budget document altogether. Sometimes, indeed, there is no prior documentation at all and the treasury finds itself with payment obligations for which no allowance has been made.

(d) What is the system for ordering and controlling actual payments? In some countries, sector ministries have complete autonomy in the receipt and spending of earmarked funds and even of donor finance. This often takes place in the absence of guidelines or of a system of ex post accountability.

(e) Even when all, or most, payments are issued through the finance ministry this may not imply control over, or even awareness of, the amount or composition of outlays. Sometimes the payment orders may simply serve to transfer alloted sums (perhaps a fixed proportion of annual commitments) to the spending agency which determines both how much is spent and on what. This may be partially modified by the requirement of a finance ministry

endorsement on all departmental checks issued. However, this does not solve the basic problem: control over payment orders, while important, is usually too late because a liability has already been incurred on which the government cannot renege.

(f) To what extent are existing rules and procedures, even if adequate in theory, bypassed in practice? It is inevitable that, from time to time, political pressures will be put on a finance minister to circumvent normal procedures to speed up a payment or to authorize a payment not included in either the normal or supplementary budget. The important question, however, is whether this occurs frequently and with regularity.

(g) It is also important to guard against the opposite tendency: because the institutional framework is often so weak, and in particular because the finance ministry's ex ante control over commitments is so partial, the only way in which the ministry can control the total level of spending is through delaying tactics. Requests for payment orders or endorsements are bogged down within the ministry's bureaucratic system, checks are issued but not sent, etc., etc. While an understandable last resort, this is an extremely inefficient way of controlling public expenditures which has very damaging consequences for the country's development effort. It involves delays in the execution of development projects and programs which can dramatically reduce their rate of return; it distorts the structure of spending in favor of wages and salaries since these cannot be delayed (except in extremis); it undermines the real accountability of the implementing agency; and it is highly vulnerable to political pressure (a powerful minister can appeal over the finance minister's head to finance favorite activities to the further detriment of development projects).

63. To address these problems over the medium term, it is necessary to recognize the political dimension of the issue. First, studies and Bank staff reports should make it clear to the authorities that budgetary control is weak either because of the inadequacy of existing rules and regulations or because, though adequate, they are regularly and frequently circumvented. In the latter case, it should be clearly pointed out that this is an ominous precedent which may evolve into a tendency throughout the administration to ignore or to interpret loosely the laws, rules and regulations. Although budget formulation is as much, or perhaps more, a political process of negotiation than a technical one, governments should be encouraged to recognize that once the budget has been decided upon and formally approved, its aim is defeated if at any time the agreed allocation of resources can be altered or spending limits ignored. Clearly, there must be flexibility and sensitivity to changing needs, but the mechanisms and procedures for review and response to changing circumstances should be clearly spelled out and adhered to.

More Effective Financial Management Information Systems

64. Once governments accept the above principles as a starting point, then the next step would be to install procedures to improve central expenditure control. At the heart of such procedures, and the prerequisite to more deep-seated reform, is a public accounting system which provides the timely, regular, detailed and accurate information necessary for expenditure monitoring and evaluation. This would nearly always require the installation of electronic data processing methods, since a manual operation would be unlikely to cope with the size and complexity of a modern government accounting system. The installation of electronic data processing should not, however, be regarded as a substitute for the institutional and procedural reforms which are necessary to permit any accounting system, whatever its technical sophistication, to work as intended. Among the preconditions for success are: (a) the existence of detailed budgets for all government departments, institutions and agencies (including the military and the presidency); (b) the existence of up-to-date files on existing personnel and detailed organigrams for each agency;[24] (c) an adequate system of reporting and review for monitoring the expenditures of all government agencies which depend upon the central budget; (d) proper procedures for ensuring adequate scrutiny of payments; (e) clearly delineated responsibilities among departments and their personnel; (f) a classification of the major items of revenue and expenditure consistent with a streamlined accounting structure; and (g) an adequately trained staff with sufficient incentives to remain in government service.[25]

65. A few other simple rules which will enhance the chances of successful installation of improved management information systems are:[26] (a) keep the system as simple as possible; (b) all the key players, in both core and line agencies, must understand the system and have an effective input in designing and improving it; (c) identify at an early stage what can be done given the short term staffing constraints and order the equipment accordingly; (d) apply the system as flexibly as possible since it is difficult, if not impossible, to be precise in advance concerning where new systems are likely to be most useful (elaborate feasibility studies are thus

---

24/ See B. Nunberg: "Public Sector Pay and Employment Policy Issues in Bank Lending: An Interim Review of Experience." PPR Working Paper (forthcoming) for an analysis of the difficulties involved in public sector manpower planning

25/ In Kenya it was found recently that nearly all statistical surveys processed by the Government's Computing Center could have been done faster manually. The root cause of this was unfilled vacancies for programmers and systems analysts because of better job prospects in the private sector. (See Clay G. Wescott: "Building Information Management Systems for Developing Countries," paper presented at a conference on Policy Aspects of Microcomputers in Developing Countries, National Research Council, Washington DC, January, 1988.

26/ Wescott: op. cit.

likely to be a waste of time and money, at least until several pilot projects have been completed); (e) train and retrain more people than seem to be needed to cope with the likely losses to the private sector; (f) focus training on substance, not on technology; (g) share the benefits of the new system, particularly the increased volume of (hopefully) relevant information, as widely as possible, and certainly with all key actors whose work performance could be improved by possessing it; and (h) start with the core ministries (especially finance): sector ministries often have their own sources of donor financing which can complicate later attempts at achieving consistency between sub-systems.

66. It is really only when a reasonably well functioning system of central control has been established that it becomes meaningful to consider wider planning and budgeting principles such as objective-oriented spending or greater autonomy and accountability of line agencies. A well-functioning expenditure control system should permit: (a) greater flexibility on the part of spending ministries in reallocating resources to sustain core activities and support key objectives;[27] (b) concentration of scarce resources on delivering key services which are essential for economic recovery and the development of human resources.

Coping With Uncertainty

67. Perhaps the greatest challenge facing governments who wish to improve their public expenditure management is dealing with the uncertainties inherent in all budgeting and planning exercises. Budgeting techniques have not been well designed to cope with uncertainty; indeed, they may be said to thrive on stability. As Naomi Caiden so aptly puts it,[28] "budgeting works best where year-to-year adjustments are marginal, where it is possible to make firm commitments in advance of expenditures, where the recent past is a good guide to the immediate future, and where results may be easily and promptly evaluated." This is a far cry from the reality facing policy makers in most developing countries, particularly those where fiscal revenues rely to a significant extent on commodity export taxes, and where the public investment program depends on uncertain external financing. Even in less externally-dependent economies, the vicissitudes of an increasingly unstable environment render forecasting hazardous. Resource availability estimates and budget allocations may require frequent readjustment during the course of the fiscal year. To maintain a rational resource allocation under such circumstances is an immensely difficult task, which is demanding not only upon the individuals concerned with policy making at a high level, but also in terms of the flexibility of the institutions and procedures involved.

27/ One of the consequences and features of inadequate control systems is that expenditure realignments, especially in or out of personnel costs, can only be carried out by the core agencies; this reduces flexibility and impedes implementation.

28/ Naomi Caiden: "Public Budgeting amidst Uncertainty and Instability," in "Public Budgeting and Finance," Washington DC, Spring, 1980.

68. Uncertain revenues are, however, only one of the causes of unpredictablility in budgeting. The growth of the public sector, both in size and complexity, has made it much more difficult to predict levels and allocations of expenditure. Institutional and managerial capacities have not kept pace with this growth. Even within the short range perspective of the fiscal year, the cost of programs are underestimated, they run out of money and require supplementary appropriations.[29] Since resources are finite, this means less is available for other programmed activities. Such difficulties are even more acute for the growing proportion of activities which require to be programmed on a multi-year rather than on an annual basis. Such programs often do not get the stable long term commitments of funds which they require. In an atmosphere of semi-permanent fiscal crisis, core ministries tighten and centralise control procedures, and are reluctant to commit funds for more than the shortest legally permitted time. The authorities managing longer-term programs cannot, therefore, plan ahead in the knowledge that the end of each budget year will not bring about harmful reductions or even a cut- off in funding. Alternatively, administrations faced with uncertainty attempt to do too much too quickly. Appropriations are not spent and large balances accumulate towards the end of the fiscal year. This can lead to "panic spending" as agencies fear that the balances will lead to reduced allocations in the next budget round.

69. The state of the art on budgeting and expenditure planning offers little to governments trying to cope with uncertainty. Refuge is often taken behind sweeping global reform proposals (see the next section) whereas a more modest, partial approach may be of greater practical relevance. Even here, however, there are few short term palliatives. Over the longer run, governments can be better equipped to deal with budgetary uncertainty through:

(a) judicious use of sensitivity analysis and alternative revenue and expenditure scenarios;

(b) drawing on comparative analysis and experiences of other governments and the private sector;

(c) the adoption of differential time spans reflecting the varying nature of programs;

29/ Supplementary budgets are themselves a common source of abuse of the system. In Zambia, for instance, this combines with diffuse expenditure authority in a highly detrimental manner. The Central Bank maintains a "revaluation account" under which payments are automatically made, irrespective of whether authorization was given in the budget. In effect, this allows spending ministries to overdraw their accounts and initiate new projects without approval from the Ministry of Finance, with retroactive authority provided through the suplementary budget. The results are as might be predicted: in 1986, the supplementary budget was almost as large as the original operating budget, yielding a very large overall deficit.

(d) placing much more emphasis on the implementation stage of the budgetary process (most analysis and reform proposals concentrate on the preparation stage) in terms of planning budget implementation processes, reviewing how officials work with budgets during the year, making adequate arrangements to ensure cash flow at critical periods, establishing self-pacing disbursement schedules, and initiating an incentive system for compliance with budgetary mandates;

(e) making fuller use of new accounting and electronic data processing techniques to compare, track, and assess expenditures with a view to achieving greater decentralization and more effective accountability at line agency level; and

(f) greater reliance on medium term financial programming with appropriate contingencies for shortfalls in anticipated resources and a closer link between revenues and expenditure planning.

70. Botswana presents an interesting example of how to cope with revenue uncertainties. The Government is highly dependent on trade and commodity-related income with customs duties and mineral royalties accounting for almost three-quarters of total revenues (excluding development grants). Accordingly, the country's sixth National Development Plan (NDP) contains four budget scenarios. The base case is the most optimistic both in terms of expenditure (it assumes an end to the then current drought) and revenues (increased mineral exports and drawing of foreign borrowing above historical levels). [30] The other three scenarios were designed to test whether policy actions (either new revenue measures, or reductions and reallocations of expenditures) would be needed under less favorable conditions. They assumed, respectively, higher drought relief expenditure, lower diamond export receipts, and less external aid funding. The model used could also predict the effects of all three phenomena occurring at once, though this "disaster" scenario was not published in the NDP. The approach adopted by the Government was highly useful, not only in terms of predicting the macroeconomic impact of deteriorating revenues, but also in preparing the authorities for the eventualities and having well-thought-out policy responses ready for them.

71. Before, however, attempting to apply this methodology elsewhere, it is important to note that in Botswana it forms part of a well-functioning planning and budgeting system with institutions and procedures that should be the envy of some developed, let alone developing, economies. Among its principal attributes are: (a) well-prepared macroeconomic projections to underpin the Plan, using a model adopted to the country's needs and characteristics; (b) a thorough preparation process for both the NDP and the annual budget, involving each ministry and spending agency at each stage of

---

30/ Though it is interesting to note, en passant, that the Bank report considered the revenue projections even in the base case to be somewhat conservative, due mainly to different exchange rate suppositions.

the process; (c) a manpower planning system and population growth projections designed to guide expenditures in the social sectors as well as civil service size and salaries; (d) a carefully designed public investment program, using (where appropriate) project evaluation techniques, and choosing projects on the basis of national development priorities; and (e) recurrent cost implications for capital expenditures that are explicitly calculated and taken into account. In brief, the system possesses many of the attributes of the medium term financial planning "model" discussed in paragraph 18 of this paper. The so-called weaknesses described in the Bank report, and the recommendations for addressing them, could almost be described as fine-tuning. Unless these fundamental characteristics are in place, at least to a significant degree, the application of modelling techniques to deal with fiscal uncertainty will be of little use.

Comprehensive Budgetary Reform

72. The pervasive nature of the deficiencies throughout the budgetary system have persuaded some governments and observers that traditional procedures show little promise of enabling budgets to fulfill their role as instruments of economic policy in the wider sense. This has led to attempts in both industrialized and developing countries to introduce wholesale reforms to the budgetary process which seek a clearer definition of the objectives and outputs expected from budgetary allocations, a multi-year framework showing costs and expected results and a system of evaluation for feedback into subsequent budgeting. These objectives are common to a number of new methods which have been introduced in recent decades including Planning, Programing Budgeting System (PPBS), Rationalization of Budgetary Choice (RBC), and Zero Based Budgeting (ZBB).

73. PPBS is a refinement of the concept of performance budgeting which was partially introduced in the United States as early as 1912. Performance budgeting, as well as introducing the concept of objectives, embodied classification of expenditures by program and activity. The proponents of PPBS want to carry this further by adding the notions of need and efficiency with the aim of quantifying as far as possible the extent to which the chosen objectives have been met with the means used. In addition, PPBS has a multi-annual dimension which should facilitate the linkage between the planning and budgetary process.

74. The schemata of a typical PPBS process is summarized in Chart 1.[31] There are three basic phases following the name of the method: planning, programing and budgeting. The planning phase seeks through study to identify present and future requirements (objectives) and to evaluate

---

31/ For a fuller treatment, see A. Premchand: "Restructuring Budgeting Systems in Developing Countries: Relevance of the PPBS System" (1977) and L. Garamfalvi: "La Reforme Budgetaire: Quelques Experiences Recentes" paper presented at an IMF Budget and Expenditure Control seminar in 1984.

different possible solutions with a view to selecting the optimum one. It is in this phase that system analysis techniques come into their own. The programing phase takes the proposals of the planning phase and integrates them into programs. These should not only be internally coherent and consistent among themselves but should form a hierarchy of priorities. This would be pyramid-shaped with the top priority category of programs and sub-programs at the summit. Decisions concerning categories, programs and actions would be taken at different levels of the political hierarchy. The setting of broad priorities (program categories) concerning health policy, agricultural policy, etc., would be a cabinet level responsibility, while the optimization of individual programs would be the task of sector ministries. Each would be multi-year and would indicate the total cost and timetable. Every year, each program would be revised and updated in the light of experience and reprojected forward. The third phase, that of budgeting, is the translation of each multi-year program into a set of specific annual actions, and determines who does what and with what resources. Inevitably, this is the most difficult stage of the process. The organic structure of the budget administration is different from that implied by a programing approach and cannot be easily altered. Moreover, problems such as the apportionment between programs of expenditures which are not directly imputable (like wages, for example) must be solved at this stage. Finally, the system provides the means for control and post hoc evaluation of results which should then be fed back into the planning and programing phases.

75. RCB, introduced in France, is very similar to PPBS, to which it owes its inspiration. Differences between the French and US experiences, although important, reflect implementation rather than substance. Both experiments were initially attempted in a context of expanding resources and rapid economic growth. The third variant, ZBB, uses essentially the same techniques but adapts them to a more austere environment of unstable and even diminishing real revenues. As its title indicates, this method starts from the basic assumption that the fact that a given activity has had resources devoted to it previously does not automatically entitle it to a continued renewal of those resources. All activities, except in some cases of those forming part of a continuing, already-approved program, should start from the assumption that they have to be fully planned and justified from scratch.

76. System-wide budgetary reforms have generated a great deal of controversy. In particular, installation and operation of a complete PPBS has not fully succeeded even in the sophisticated administrations of some industrialized countries. They have proved to be lengthy and administratively complex undertakings requiring extensive revisions of traditional accounting systems and institutional habits. In some cases, for example in the United States, insufficient attention was paid to making them compatible with the political process and too much emphasis was placed on technical considerations. Nevertheless, they are far from being wasted efforts, and the experiments of both industrialized and developing countries are rich in lessons for those developing countries considering embarking upon a similar exercise. Annex III contains a more detailed discussion of

the pitfalls encountered in the United States and Belgium with the introduction of PPBS; of the slow but not wholly discouraging installation of RBC in France; and of the Dutch experience which has relied on a more gradualistic, decentralized approach. To complement the discussion, two recent examples of budgetary reform in developing countries are described: the forward budget in Kenya, refined by the introduction in 1985 of the Budget Rationalization Program; and the National Public Expenditure Plan of Papua New Guinea introduced in 1979.

77. In general terms, there would appear to be two groups of reasons for the failure of reform efforts, even in the most successful countries, to live up to their initial expectations. First, the inherent complexity involved in the new methods was not made fully explicit at the outset. This prevented adequate preparation of the planning mechanism and procedures, the accounting system and the requirements for electronic data processing. The muddling through and improvisation that followed both slowed down the new system's installation and reduced its credibility in the bureaucracy. Second, as indicated above, the technical aspects were overemphasised at the expense of the political dimension.

78. Since the budgetary process is, in essence, one of political bargaining, then it should be obvious that the political implications of a major reform should be fully and explicitly taken into account. Yet this is seldom, if ever, the case. The very nature of the political debate surrounding the budget changes profoundly as a result of the introduction of programing methods. The approval of a traditional budget presented under the usual form of votes and line items is very different from that of a program budget with quantified objectives. In order for politicians to feel secure in the rejection or approval of a budgetary item, it is important for them to have access to the same information as those who have prepared the program. This is difficult to achieve in the case of sophisticated and complex programs. For example, few ministers or legislators in France have the time or inclination to read and absorb the extensive and detailed material made available to them in the program budget annexes. Moreover, politicians are aware that the probable consequences of their decisions to approve or refuse an expenditure application will be much more transparent if costs and objectives are clearly identified and quantified than otherwise. This is by no means necessarily desirable for them.[32]

79. In nearly all countries, the budget is strictly regulated by a complex set of laws which govern not only its structure but the means of presentation, approval and execution. The introduction of new methods ignores this at its peril. The kind of reforms discussed here require

---

32/ At one extreme, "traditional" budgetary allocation can be viewed wholly as a political process, resulting from negotiations between interested parties, the results of which reflect the relative power of each. At this extreme, not only is there no market mechanism in the economic sense, and hence no "prices" attached to inputs and outputs, but the introduction of such "prices" might be viewed by politicians as, at best, unnecessary and, at worst, threatening.

fundamental changes in budgetary legislation. For example, in most cases the law enshrines the principle of annual budgeting; program budgets, by contrast, imply a multi-annual framework. The outcome of this dichotomy is that in none of the cases examined does the program budget have the force of law. This inevitably reinforces the tendency to regard it as a supplementary exercise somewhat removed from where the "real" decisions are made.

80. Institutionally, it is almost certain that a reformed budgetary system will collide with an administrative structure and mores largely incompatible with it. Either the institutions must adapt to the new method or the new method will be forceably adapted to the institutional structure to become eventually "neutralized" or even rejected. The experiences described in Annex I suggests that the latter is far more common than the former. To prevent or at least mitigate this requires considerable effort, forethought and expenditure which should be explicitly recognized at the outset. First, there is a need to build up support for the change at a "grass roots" level within the administration. The imposition of change from the top by executive order is nearly always fatal. The new methods should be introduced gradually on a pilot basis in carefully selected ministries which are willing to be used as guinea pigs. The fullest possible amount of information on the new system and its broad objectives should be widely disseminated among those potentially affected. In particular, the role of "outsiders" (experts and analysts) should be explained to reduce sensations of insecurity and irritation. Second, it should be recognized that this will be an expensive, though productive, process. At least three new cost categories will have to be met: information, training and equipment. The depth and scope of data required for program budgeting is greatly in excess of that for a normal budgetary exercise. Allowance should be made for the human and financial resources that this implies. Similarly, training should not be regarded as simply a "classroom" exercise of instructing the operatives of the new method. Rather, the government should tap all sources of expertise, both national and international, organize seminars, publish articles, and conduct experimental workshops in which participants should be made to feel pioneers in a new process. Training should be regarded as a continuous process of "learning by doing." It should also be recognized that program budgeting is impossible without full access by both core and sector ministries to electronic data processing. The full costs of equiping and training the administration should again be gauged on a pilot basis.

81. Third, while avoiding the pitfalls of dictation from the core ministries, it is important to establish a thoroughly professional unit, probably located in the ministry of finance, which is responsible for coordinating and guiding the reform effort. This unit should have the full backing of the higher political authorities, should be responsible for the dissemination of information, manuals, etc., and should advise ministries on the acquisition of appropriate external support. However, the decision of whether or not to hire outside expertise and to allocate resources to the reform effort should remain the responsibility of the executing ministry.

82. Fourth, it should be recognized that the process of reform, to be successful, must be gradual. It should be extended beyond the pilot ministries only as others become thoroughly prepared. Partial reforms, such as the use of cost benefit techniques and the preparation of sector strategies, could precede the full reform effort. It is noteworthy in this connection that Holland, which has perhaps the most encouraging experiences in wholesale budgetary reform, has been discussing and debating new methods since 1950; by 1986 program budgeting had been extended to about 40 percent of expenditures.

83. Fifth, procedures should be kept as simple as possible and should be consistent with the availability of qualified human resources. For example, an attempt to subject all detailed line items to a forward budgeting procedure or the full range of official activities to a programing approach will be impractical in most countries whether industrialized or developing. As the experience of Kenya shows, failure to be selective can swiftly damage the reform effort. On the other hand, while being selective, developing countries should avoid the error of Papua New Guinea where the new method was confined only to activities which could be regarded as marginal. A good start might be to introduce cost-benefit techniques, forward budgeting and performance budgeting to those ministries which account for the lion's share of the core investment program, concentrating initially on those expenditures, both capital and current, which are linked to the core program.

84. Finally, overambition is highly counterproductive in this field, and it is important to avoid trying to swiftly replace the traditional system in its entirety by a totally new approach. This will inevitably cause resistance at all levels of public institutions, and will eventually result in disillusion. Rather, developing countries should remember that there are many features of a programing budgeting approach which are useful, indeed vital, if a proper link between planning and budgeting is to be achieved and if the budget is to become an effective policy instrument. There is, for example, the basic principle that government objectives should be clearly specified, in as quantifiable a manner as possible, and that budgetary categories are reclassified so as to be able to track more easily the attainment of these objectives. There is also the tenet that major investment decisions, together with their current expenditure implications, should be objectively scrutinized and subject to cost benefit analysis. While recognizing, therefore, that the experiences described in Annex III illustrate the limits of, and constraints to, budgetary reform, and that few would argue for the wholesale import and installation of new sytems in developing countries, it is nonetheless important to avoid an unthinking rejection of the program budget approach. Carefully and selectively applied, it has much to offer developing country governments anxious to improve the allocation of public resources.

MANAGEMENT OF PUBLIC EXPENDITURES: CHECKLIST OF INSTITUTIONAL QUESTIONS TO BE ADDRESSED?/[1]

1. Macroeconomic Framework

1.1 Are analysis and projection of macroeconomic variables which have an impact on public expenditure planning carried out systematically and if so, do they appear to be taken seriously at a high political level?

1.2 Which institutions are responsible for producing assessments and forecasts? What are their staffing and data problems?

1.3 How frequently is the assessment carried out? What is the procedure for updating it?

1.4 In what format are the assessments produced (e.g. in a medium-term plan, through a forecasting model, through an annual economic report)?

1.5 What is the link, formally and in practice, between these assessments and the preparation of investment programs and budgets?

1.6 What is the extent and quality of background material provided to those responsible for planning and managing expenditures (growth rates by sector, investment and savings requirements, expected rate of inflation, exchange rate movements, etc.)?

1.7 Does each agency produce its own macroeconomic assumptions with consequent inconsistencies?

1.8 What is the degree of feedback between expenditure planning and economic assessments? Are there regular review meetings? Are these attended by forecasters? How reliable has their advice been in the past? Are governments provided with the necessary information to react rationally to shocks?

2. Investment Programing and Project Preparation

2.1 To what extent can the problems associated with the investment program be traced to institutional deficiencies?

1/ This Annex draws heavily not only on reports and conversations within the Bank, but also on the work of the staff of the IMF Fiscal Affairs Department. Messrs. A. Premchand, P. Heller, L. Garamfalvi, A. Tazi and H.R. de Zoysa have been especially generous with their time and advice. Like that of the Bank, the Fund's work in this area is constantly evolving as can be seen from the Fiscal Affairs Department's periodic country studies as well as their methodological papers.

2.2 Is there a planning function? Is it adequately coordinated or fragmented over a number of institutions?

2.3 Why does fragmentation exist (historical factors, the grafting of "modern" institutions onto traditional structures, deliberate decisions to divide power, etc.)?

2.4 What would be required to achieve greater coordination? Would a simple merger be enough or are deeper seated difficulties more significant?

2.5 What is the process by which the investment program is actually put together?

2.6 What is the capacity of line ministries and spending agencies for generating and evaluating investment projects?

2.7 Are coherent sector strategies developed in the line ministries?

2.8 Are there clearly delineated responsibilities for each stage of the project cycle or, rather, overlapping functions causing confusion and a breakdown of coordination?

2.9 What is the relationship between line and core ministries? Are the latter forced to intervene at too detailed a level because of lack of capacity in the former?

2.10 Does an adequate mechanism exist to enable core agencies to make strategic choices between investment alternatives, or are the line ministry submissions more like shopping lists?

2.11 What is the influence of current rules and regulations governing the formulation of the investment program? Does the system of checks and balances and incentives contradict the aim of investing in economically justified development projects?

2.12 What is the degree of accountability for the success/failure of development projects? Is there concern whether targets are met or not? Are there adequate formal arrangements for *ex post* reviews and a feedback into investment programing?

2.13 Has there been a tendency to solve institutional weakness and address lack of technical capacity by the grafting of new institutions onto a traditional administrative structure? Has this blurred responsibilities still further? What have been the consequences in terms of "widening the technical gap" between core and line ministries?

3. The Link Between Planning and Annual Budgeting

3.1 Is there a rolling annual investment budget linked to a multi-year program?

3.2 Are there forward budgets and/or "crosswalk" documents linking investment programs with annual expenditure allocations?

3.3 What is the coverage and degree of complexity of forward budgets? Can the administration cope with them?

3.4 What is the degree of participation of planning agencies (both core and line) in the annual budget preparation process?

3.5 Are development plans and investment specified in the right amount of detail and consistency for use in the budget process?

3.6 What are the institutional mechanisms for interministerial discussion of line ministry submissions?

3.7 Does the forward budget/investment program have the force of law? If not, what impact does lack of legal force have?

3.8 What are the factors which may have damaged the credibility of the programing exericse?

3.9 Is the time available for completing the budget cycle sufficient for the complex requirements of negotiating and incorporating plan targets?

3.10 What is the attitude of those responsible for budget preparation towards those who prepare the investment program/development plan?

3.11 What is the institutional division of responsibilities? Would coordination benefit significantly from having planning and budgeting in the same ministry? If not, then what can be done to improve matters?

3.12 Does the central planning authority have legal power of veto over which projects/programs are included in the annual budget? If so, does it have the institutional and technical capacity to make this effective?

4. Budget Preparation

4.1 What is the organization of the ministry of finance? Who within it is responsible for budget preparation? Is there an office concerned with analyzing government operations in terms of their objectives?

4.2 How are expenditure estimates prepared? Is the process essentially incremental?

4.3 What information is available to the finance ministry on the number of civil servants in each establishment, on their activities, and on the price/volume relationship for wage expenditures?

4.4 Are there overlapping functions in the finance ministry or functions that should be fulfilled but are not? Does the ministry have its own project evaluation capability? If so, how does it relate with that in planning?

4.5 What sort of budgetary system is in operation (e.g. French tradition, US tradition)? How amenable would it be to new procedures from a different tradition?

4.6 What is the budgetary cycle? Are there problems of "bunching" of budgetary decisions which affect the quality of the outcome?

4.7 How flexible is the system in terms of accommodating changes at each stage of the cycle?

4.8 How appropriate is the fiscal year?

4.9 Does the ministry of finance issue circulars and guidelines to the line ministries? If so, are these routine documents or are they used to disseminate substantive policy guidelines?

5. Budget Coverage

5.1 How much of total revenue and expenditure does the budget cover? Which institutions are excluded and why? What are the arrangements for the channeling of donor finance?

5.2 What is the extent of earmarking? What would be the institutional and economic implications of curbing it? Is earmarking authorized in the constitution or in laws and decrees that may be difficult to change?

5.3 How many special funds and separate or supplementary budgets are there and who benefits from them?

5.4 Are state enterprise investments included in the capital budget?

5.5 What measures could be taken to improve the coordination of autonomous agency investment without full incorporation into the central government budget?

6. Classification of Budget Items

6.1 How useful is the current classification for development policy purposes?

6.2 What is the definition of capital expenditures? How are recurrent costs during construction treated?

6.3 Are "development" expenditures separately dealt with? Do they include recurrent as well as capital costs? If not, is there an attempt to calculate and forecast recurrent cost implications? Are the results incorporated in the annual and forward budgets?

6.4 What would be the institutional and manpower implications of reforming classification? Is the coding system capable of data automation?

7. Budget Implementation and Control of Expenditure

7.1 What is the institutional capacity of the spending agencies and line ministries to exercise greater responsibility for budget execution and the control of expenditures?

7.2 At core ministry level, what are the arrangements for expenditure control? How many expenditure categories are there? How many institutions are involved?

7.3 What degree of control does the finance ministry exercise over commitments? Who is exempt from this control and why?

7.4 What are the procedures for ordering and controlling actual payments? What degree of autonomy do line ministries and spending agencies have in the expenditure of earmarked funds?

7.5 To what extent are existing rules and procedures, even if adequate in theory, frequently and significantly by-passed in practice? Why is this done?

7.6 To what extent does the finance ministry have to resort to delaying tactics to control global spending limits?

7.7 Does the finance ministry have the necessary information to control the composition as well as the total level of spending? What institutional, procedural and manpower changes are required to make such control effective? Is it politically feasible?

7.8 If control mechanisms are adequate, what is the scope for allowing greater flexibility on the part of spending ministries to reallocate resources to sustain core activities and deliver key services?

7.9 What instruments are available to achieve flexibility in expenditures? How are supplementary estimates processed? Are guidelines? Are they applied? Why are supplementary estimates necessary--initial underestimation, unforeseen factors, lack of flexibility in the reallocation of resources, etc.?

BUDGETARY REFORM: SOME COUNTRY EXPERIENCES

A. Introduction

This Annex describes the experience of four industrialized and three developing countries in the implementation of improved budgetary procedures and systems. All six experiments have in common the objectives of making the budget a more effective instrument of economic policy, and of improving links between planning and budgeting and between policy inputs and outputs. Accordingly, they aim to improve the allocation of increasingly scarce resources and to facilitate the preparation of expenditure programs consistent with economic policy. The experiments with reform provide a number of important lessons for developing countries which are discussed in the main text. None of them has been fully successful; they range from almost total failure (the introduction of PPBS in the United States) to gradual improvement with some hope for future practical improvements. All of them, however, amply illustrate the political, institutional and technical difficulties associated with reform in this complex area.

B. United States

The pioneer experiments in program budgeting took place in the United States. Their early history stemmed from the need to coordinate, in wartime, the availability of strategic metals with the requirements of the military for finished equipment. This resulted in the preparation of Production Requirements or Controlled Materials Plans which linked together the production of armaments with the necessary means (metals, labor, etc.). This Plan was thus the first program budget prepared under official auspices. After the Second World War, the methodology was developed and extended, principally by the Rand Corporation working with the Department of Defense. Techniques of cost benefit analysis, systems analysis and multi-criteria analysis were refined and adapted to the needs of military production and strategy. In 1953, the preparation of the Air Force budget under PPBS techniques was proposed. Although this was not elevated beyond the academic stage, the Rand Corporation continued to develop PPBS and the method was introduced into the Defense Department in 1961 by Secretary McNamara.[1] In 1965, President Johnson ordered the extension of the system to the entire Federal Administration.

After six years of effort and very discouraging results, the experiment was terminated. Without expressly mentioning PPBS, a June 1971 circular from the Budget Office informed Departments that applications for budgetary allocations from Federal agencies should no longer be accompanied by multi-year programs or by analytical studies. A number of reasons can be cited for this unhappy experience. First, a method which was developed exclusively in one Department (Defense) was imposed by Executive Order on all others without considering whether they had the means with which to comply. The Budget Office issued circulars based entirely on the Defense

---

1/ L. Garamfalvi: "La Reforme Budgetaire: Quelque Experiences Recentes," IMF mimeograph, 1986.

Department's experiences without any attempt to adapt them to the requirements of other Departments. Nor were these latter given any assistance from the Budget Office in terms of either methodology or coordination. Some Departments tried to install the system using only their own manpower resources; others asked for assistance from the Defense Department; yet others hired consultants from the universities or even from abroad. Whatever the quality of their academic achievements, these individuals were usually less than familiar with the complexities of the U.S. Federal Government system.

Second, the introduction of program budgeting was not preceded by any serious analysis of the suitability of the Federal structure for it, nor of the administrative, political and technical aspects of it. The imposition of the system from above without any preparation or taking account of the manpower and other requirements condemned the experiment to failure before it began.

Third, the encouraging experiences in the Defense Department proved elusive elsewhere. Quantifiable objectives, the vital raw material of PPBS, were considerably more difficult to identify. There was, moreover, an inevitable clash between the concept of quantifiable objectives in the program budgeting sense and the implicit objective function of the Federal Administration as expressed in its mores and administrative structure. This always occurs to some extent, and it is unrealistic to hope to adapt a complex political structure to programing ideas except very gradually and, even then, incompletely. However, it is necessary to try to insure a minimum of conformity to the ideals of the new system by having, within the Administration, at least one body dedicated to its management and dissemination. This was missing in the United States.

Fourth, the introduction of PPBS encountered a subtle but nonetheless formidable opposition from administration functionaries. As it was not instead of, but rather in addition to, the traditional budgetary procedures, it increased the volume of work substantially. Officials were charged with the preparation of the "normal" budget, plus the programs budget and a crosswalk document (matrix) linking the two. Officials also resented what they saw as the intrusion of analysts and other technicians, charged with the planning functions, into their domain. Frequently the analysts displayed lack of knowledge or appreciation of the difficulties involved in the practical application of their theories. Resentment of overworked officials was also reinforced by the knowledge that the complex and controversial programs could be seen to have little or no influence over the actual allocation of resources.

C. Belgium

The approach adopted in Belgium from the late 1960s onwards, differs in several important respects from that of the United States.[2] Instead of starting from a global or centralized planning concept, the Belgians attempted to identify and systematize the actions followed and the

---

2/ Garamfalvi op cit.

objectives pursued by individual ministries. This approach had the advantage of identifying, at an early stage, the contradictions between declared objectives and objectives actually pursued in accordance with actions taken. The exercise was developed into the elaboration of programs at a ministry-by-ministry level, and then converted into program budgets with financial values attached to the expected inputs and outputs. Two ministries, Agriculture and Health, were chosen for the pilot experiments, and between 1969 and 1971 the operation was extended to five more entities (the Ministries of Labor and Employment, and of Social Security, the Post Office, Scientific Establishments, and, at its own request, the National Savings Bank). After 1971, the budgetary requests at ministerial level could be made in wholly program form for the two most advanced ministries (Agriculture and Labor and Employment). Unfortunately, this was the high point of the Belgian experiment. The extension to other ministries, and the integration of the programing approach into traditional budgetary procedures and allocations never took place. The decision to "formalize" the system was not taken and it accordingly fell into disuse. After 1973, the method was progressively abandoned by those ministries which had adopted it and the central team established to coordinate and assist program budgeting was dismantled.

Four main reasons may be identified for the failure of the Belgian experiment. First, not only the parallel continuance of traditional budgetary procedures, but also the failure of the political authorities to give any weight to program budgeting meant that the latter never lost its aura of being no more than a rather academic experiment. Second, close involvement and understanding of the new method was confined to relatively few senior officials and little attempt was made to train or encourage a sympathetic attitude among the civil servants responsible for preparing ministerial budgets. Third, the core institutions in the budgetary process (for example, the Finance Inspectorate and Budget Directorate of the Finance Ministry, the Parliament and the Office of the Accountant General) were not involved in the pioneering of the system[3] and never displayed more than a qualified enthusiasm for it. Fourth, those who tried to apply the system swiftly found that it was impractical in the absence of a fully computerized management information system. At the time few, if any, Belgian ministries possessed such systems.

D. France

France is, perhaps, the country which has gone the furthest in the practical application of program budgeting. More than in most industrialized, non-Socialist societies, economic planning enjoyed considerable prestige in France, at least until the 1970s, both as an authoritative forecast of the French economy and as a statement of proposed government policies.[4] Nevertheless, even in France the economic

---

3/ The pioneer work was done by scholars and civil servants from the chosen ministries and was located in the Institut Administration-Universite, an independent body which carries out research work in public administration in Belgium in collaboration with the Civil Service Ministry.

4/ See "French Planning Reforms 1981-84" by Martin Cave, Brunel University, 1986.

vicissitudes of the 1970s, combined with an increasingly "free market" orientation of economic policy to push planning into disrepute. Top be sure, plans continued to be produced; but the sixth plan (1971-75) was disrupted by the recession following the first oil shock, while the expansionary seventh plan collided with the austerity program of Prime Minister Raymond Barre in the late 1970s. It was only after the election of a Socialist Administration in May 1981, that planning began to be taken seriously again at a high political level.

It is important to bear this background in mind when considering the French experience with program budgeting: this was, in essence, the application of planning principles to the annual budgeting exercise and a means of linking the latter to the planning process. As program budgeting was effectively launched in France only in 1970, its early years were inevitably tainted by what was seen as the increasing irrelevance of planning.

Moreover, several other industrial countries attempted to introduce program budgeting broadly along the lines first developed in the United States. Their mixed experiences have also had an impact on the French experiment. The French, however, persisted and it would appear that the concept is gaining ground, albeit slowly. Even in France there is a long way to go before program budgeting is fully accepted or integrated into regular procedures but the French avoided some of the mistakes of the U.S. and Belgian experiments, and their experience provides a number of important lessons.

Program budgeting in France attempts to capture the concept of performance evaluation by results introduced in the original American PPBS idea.[5] However, in France it was launched in a more flexible form; no directive or general instructions were issued by the core ministries and coordination was entrusted to an Interministerial Commission established in September 1970. This Commission is expected to "monitor and coordinate the development of the (program budgeting) tasks undertaken in each ministry and to propose to the Government the setting up of procedures to assure a periodic control of the results attained from this work."

Perhaps because of this relatively flexible approach, program budgeting increased its coverage of public expenditure activities in France, often at the initiative of individual ministries and agencies. By 1974, fifty analytical studies had been completed or were underway and five ministries had prepared program budgets which were annexed to the finance (budget) law of 1975. By the mid 1980s, program budgets present a rich and systematic source of information about the great bulk of public sector activities. The 1984 budget, prepared in 1983, contained annexed programs in 91 general areas and 395 separate sub-groupings representing a total expenditure of 850 billion francs (over 90 percent of all state

---

5/ The following paragraphs draw upon an excellent evaluation of the French program budgeting experience in Robert Poinsard: "Les Budgets de Programmes, Quinze Ans Apres" in "Economie et Prevision" published by the Finance Ministry, Year 1985/5, Number 71.

expenditures foreseen under the budget apart from debt servicing and some special account). As a result of this expansion, certain "good habits" have become inculcated and in some cases have become legal requirements. The carrying out of cost benefit analysis, for example, is obligatory and the absence of such analysis or of a positive rate of return has led to administrative decisions being reversed at ministerial or cabinet level.

Despite these important advances, program budgeting, even in France, has not become fully integrated into the budgetary decision-making process. During the 1970s, the budgetary annexes prepared under program form, while expanding in number, did not provide the basis for actual expenditures voted into the budgetary law. As noted above, this coincided with the increasing disrepute of the planning process per se. Gradually, the initial ambition of full integration into the budgetary system has been de facto abandoned. Even the revival of planning under the Socialist Administration has not reversed this trend. Instead, new and potentially productive uses are being found for program budgeting. Its beginnings in France coincided with a period of growth and increasing resources. It was intended both to complement and to draw upon a centralized system of indicative planning aimed at maximizing the rational use of these growing resources. As the external environment worsened, these ambitions seemingly dimmed into irrelevance. However, the persistence of the French civil service apparatus with program budgeting, despite its alienation from the final decision-making process, meant that not only the administrative machinery, but also the necessary technical and intellectual capabilities, were still available to put the instrument to other uses. These latter were more compatible with an environment of scarcity and future uncertainty than of abundance. Thus, after 1980, program budgeting has been marked by greater emphasis on increasing the productivity of the administration and on reinforcing the coordination and compatibility of cost benefit and other studies aimed at enlightening the choice between alternative expenditures.

The failure to realize the original ambition of full integration of the program approach into the budgetary decision-making is not entirely due to external factors. Internal elements are also at work from which important lessons can be drawn for developing countries. First, conceptually, the programs frequently fail to specify their final objective and its time frame with the same degree of precision as the administrative, financial and physical means that are to be used. Consequently, impact indicators tend to be relegated to a more modest role and are sometimes absent altogether. The program budgets thus falls far short of the "production function" ideal which aims to show the effect on "output" of certain combinations of "input".

Second, the efforts suffer from lack of basic data, and from disputes about interpretation of the information that was available. For example, for some civil servants the cost of an activity means only those juridically and financially linked to it; for others, it has a wider, more economic connotation with externalities fully taken into account. Often the former won the day if only because those elaborating the program are forced to resort to inadequate global data available from the national accounts.

Third, considerable difficulty is encountered in establishing and maintaining the forward character of the program budgets. The overwhelming institutional, political and legal concentration remains on the annual budget. The program budgets are forward budgets of three years. The crosswalk between the rolling three-year budget and the annual exercise leading to the finance law was never properly constructed.[6] The program budgets have no legal force whatsoever. Inevitable forecasting problems and consequent weakened credibility compound this problem.

Fourth, the linkage between broad planning objectives and those of the forward budget is also weak, on both the institutional and technical planes. The plans consist of vague and general goals which are far from easy to narrow down to quantifiable objectives, the impact of which can be measured. These difficulties can only be compounded when the quantification is done by sector ministries and executing agencies without adequate participation by those who prepare the plan.

Fifth, the relative lack of importance accorded to program budgeting by decision-makers has inevitably had its toll on the morale and quality of work of those responsible for it. In some cases, the program budgeting office in a ministry has been closed and its work taken over by the general budgeting office which is also responsible for a large number of other tasks. Technical and executing agencies have become reluctant to elaborate complicated sets of information for an activity which they see as supplementary. The skills and techniques used to prepare the programs have become somewhat stunted in their development due to lack of adequate training and professional stimulus. The administrative mechanics and procedures for producing the documents are consequently showing signs of wear and tear and an increasing tendency to jam up. This, of course, contributes to the aforementioned delays, thereby creating something of a vicious circle. The continued devotion of enthusiastic disciples of the approach is insufficient to arrest this gradual decay. Similarly, on the demand side, a certain loss of vigor could be noted by the end of the 1970s. Many legislators encountered difficulty in absorbing the lengthy and dense material associated with the program budgets and their desire to try waned as they observed the alienation of the technique from decision making. In 1979, seven ministries[7] which regularly prepare program budgets were asked if these played a significant role in their negotiations with other parts of the administration for the obtaining of funds. All replied in the negative. Rather, they were held in reserve to be used only if the course of the budgetary dialogue so dictated and only if the necessary documents and information could be made available in a timely manner.

6/ This problem is worsened by the poorly coordinated timing of the preparation of program budgets and that of the annual finance law. Each program document, although extremely lengthy and detailed, is only available to legislators a few days, at best, before the definitive voting on the allocations under the annual finance law.

7/ Agriculture, Economy and Budget, Education, Industry, Environment, Health, Labor and Transport.

It would nevertheless be a mistake to conclude from the above that program budgeting in France is a dead letter. The revival of planning and the adoption of Rational Budgetary Choice to a more austere environment have given it a new lease of life. Techniques learned and developed since 1970 are being applied in the preparation of Priority Action Plans--"core" expenditures in times of fiscal shortage.[8] As noted earlier, the programs approach is being used to study ways of increasing the administration's productivity. Equally important, at a technical level, have been the efforts made to reconcile the nomenclatures of the programs and the regular budgets. This has worked in favor of the programs approach through, first, the annexation of program tables to legal budget documents and, second, through the increasing adaptation of traditional nomenclature to a programing structure. These developments encourage the belief that at least key elements in the program approach will not only become more integrated into the budgetary process and but also extended to assess past performance and improve budgetary control mechanisms.

E. Holland

As in France, program budgeting in Holland developed in the 1970s in response to experiments conducted elsewhere. In 1971, the Minister of Finance established an Interdepartmental Commission, chaired by the Director General of the Budget, to develop methodologies and techniques for ex ante evaluation. The efforts of the Commission were extended to perform a comprehensive analysis of the objectives of all the ministries in a manner characteristic of the centralized approach of the time. Politicians and civil servants, however, felt the exercise to be not only cumbersome but threatening. Few studies were completed and the commission had to admit failure in its evaluation report.

In 1982, the Dutch authorities decided on a new approach. The Commission was abolished, and ministries themselves were made responsible for their own policy analysis studies. A new department for policy analysis was created in the Ministry of Finance to provide guidance. Training facilities were expanded, the development of techniques became more focussed on the operational problems faced by sector ministries, and agencies were given enlarged possibilities for engaging outside consultants. In 1984, a permanent mechanism was established to permit the formal exchange of views and experiences of the new approach on a national and regional level. Workshops and seminars followed, by no means confined to civil servants or even to Dutch nationals.

What has emerged from this process is an interesting hybrid of the rational or program approach to policy-making and expenditure management, and the traditional method of "muddling through."[9] Politically,

---

8/ Although, again, the relationship between Priority Action Plans and program budgets prepared by the same agency is not always clear.

9/ See "Some Important Experiences with Policy Analysis and Performance Budgeting in the Dutch Central Government" by A. Sorber and J. Schild, in "International Review of Administrative Sciences", September 1986.

the latter has much to be said for it: it takes full account of the need to negotiate and to recognize that the end is often a function of the means chosen to attain it. The introduction of program techniques has been gradual and by and large voluntary. The only legal requirement is that of the Government Accounts Act of 1976 which stipulates that "to each relevant chapter of the expenditure estimates there shall be attached an annex giving information, in relation to those expenditures for which this is possible and appropriate (my italics), on the results attained in consequence of the activities for which the expenditures are incurred and on the resources associated with those results." The decision on what is "possible" or "appropriate" is taken by each ministry.

Although program budgeting is still far from fully integrated into the Dutch budgetary process, considerable advances have been made which bear witness to the success of a gradual, decentralized approach. Cost benefit analysis is nearly always used to evaluate infrastructure projects. Not only this, but policy analysis techniques (development of sectoral strategies with quantifiable goals and cost inputs and the application of cost benefit techniques to guide expenditure choices) have been expanded into areas such as health, the labor market and crime prevention. Between late 1984 and mid 1986, methodological advice on techniques of project and program evaluation was provided by Finance Ministry and private consultancies to ministries as diverse as Home Affairs, Foreign Affairs, Economic Affairs, Social Affairs and Employment, Education and Science, Housing, Physical Planning and Environment, and Health. The training "infrastructure" and the supply of expertise has been kept flexible and methodologies are constantly being revised and updated in accordance with the lessons of experience.

Another interesting feature of the Dutch experience is the length of time taken for decisions to evolve and for systems to change correspondingly. The formal introduction of program budgeting in 1976 had been preceded by decades of discussion and experimentation: the idea had first been put forward by two Finance Ministry officials following a visit to the United States in 1950. In keeping with the tradition of consultation and decentralized decision-making, the core ministries gradually allowed a consensus to build up rather than imposing systems from the center. As noted earlier, even the rather toothless interministerial commission was dissolved in 1982.

Similarly, there has been no attempt to replace traditional methods of budgetary allocation even in those areas where program techniques are fully applied. Rather, the emphasis has been on improving and complementing traditional methods. At one extreme, traditional budgetary allocation can be viewed as a wholly political process resulting from negotiations between interested parties. At this extreme, not only is there no market mechanism and hence no "prices" attached to the inputs and outputs of government services, there is no need for such a mechanism. Agreements are reached on expenditure allocations by "input" (e.g. staffing, equipment), without regard to output. This process is frequently dominated at a technical level by incrementalism, while at a political

level both the physical magnitudes and the policy objectives behind the sums of money are all too often lost. In practice this is, at least in most industrialized countries as well as the more sophisticated developing countries, tempered by the application of some objective evaluation techniques. In Holland, the introduction of program budgeting is aimed to increase this tempering by gradual steps. The integration or annexation of information on costs and outputs is, moreover, being done in the least threatening and "system friendly" way possible. This means use of existing information and institutional structures wherever suitable and ensuring that any changes are fully compatible with the existing budget mechanism and political process of negotiation. By 1986, about 40 percent of Dutch central government expenditures were covered by program budgets as against 90 percent in France. It appears, however, that the new techniques are better entrenched and more widely accepted.

F. Forward Budgeting in Kenya[10]

The Kenyan budget system consists of three instruments: the forward budget, the annual draft estimates, and the supplementary revised estimates. The forward budget is a planning tool which should determine annual government expenditures for the next three years. It was first introduced in 1973 as part of an effort to relate the five year development plans with the annual development and recurrent budgets. Use of the forward budget as a planning tool was somewhat haphazard until the mid 1980s when severe fiscal constraints forced the Authorities to plan the use of resources more carefully. In theory, the forward budget is meant to : (i) review the implementation of ongoing programs in the development plan to ensure that their execution remains consistent with national priorities; (ii) provide revised financial ceilings for the current fiscal year and tentative budget ceilings for the next two years; and (iii) integrate planning and budgeting on a continuous basis.

A pilot experiment in the Ministry of Agriculture has been successful in implementing many of the features of a forward budget including: (i) a better link between planning and budgeting (ii) establishing more specific criteria for determination of priorities; (iii) strengthening project evaluation and monitoring; (iv) better intergration of parastatals in the planning and budgetary processess; (v) paying more attention to planning of current expenditures and identifying the current expenditure implications of capital projects; and (vi) changing the internal structure of the ministry to conform to the requirements of the new budgetary system. Inevitably, extending the reform to the rest of the Central Government has been more problematic. The institutional difficulties inherent in major

---

10/ This section draws on a number of Bank and other documents, the following of which are publicly available: Emery M. Roe: "The Ceiling as Base: National Budgeting in Kenya," in "Public Budgeting and Finance," Summer, 1986; and Glenn Lehmann: "Kenya's Experience With a Forward Budget," EDI Training Materials, July 1986.

changes of this nature continue to manifest themselves. However, the Government has in recent years made a determined effort to tackle them. In February 1985, it announced its intention to implement a government-wide budget rationalization program (BRP) of which the forward budget would be the principal instrument. The BRP has four broad aims:

(a) to ensure a more productive use of scarce resources;

(b) to facilitate the seeking of donor support in a manner consistent with (a) above;

(c) to increase domestic resource mobilization mainly through higher user changes and other non-tax revenues; and

(d) to improve the planning and budgeting processes in both core and sectoral agencies.

Considerable progress has been made in recent years in achieving these aims, although much remains to be done. Kenya is helped by having a reasonably well-working basic accounting system and an ability to exercise overall control of expenditures in the central government agencies. It has also successfully installed a computerized financial information and management sytem in the Ministry of Finance as well as in the Ministry of Agriculture as part of the pilot experiment mentioned above. Improvements are gradually being made in the process by which the forward budget is prepared and in the seriousness with which it is taken by core and line agencies. Nevertheless, the BRP is still a long way from achieving its objectives. Expenditure cuts continue to be made in response to resource shortages without clear priorities or concern for the quality of the remaining project portfolio. The wage component of current expenditure is still increasing disproportionately; as a consequence, not only capital spending but maintenance and operating expenses suffer. Many projects are not been fully funded. The link between the plan and the budget sometimes remains unclear. This is a familiar litany of problems which forward budgeting was intended to solve.

Its difficulty in doing so to date may be attributed to a number of factors which have important implications for other countries attempting similar reforms. First, a series of major expenditure retrenchments have made it difficult to achieve lasting improvements in the composition of expenditure. As the experience of industrialized countries has shown, it is somewhat easier to introduce budgetary system reforms against the background of abundance than in times of austerity. Second, Kenya, although less, perhaps, than most African countries, faces acute shortages of the human skill resources required to make improved budgetary systems work. Particularly at sector ministry level, there are few qualified staff to fill planning officer posts. As a consequence, these officers have not been fully involved in the preparation of forward budgets which have hence come to be regarded as a Treasury preserve. Although the rules stipulate that Sector Planning Groups, chaired by Planning Ministry officers, should provide a forum for the discussion of line ministry submissions to ensure

their consistency with overall planning objectives, these groups in practice rarely meet. Moreover, the time available for discussions and negotiations is often too short to permit binding agreements to be reached. Even within the Ministry of Finance itself, there is a difference in status between planning officers and Treasury supply officers with the latter playing by far the most important role in forward budget and annual estimate preparations.

Third, little attempt is made to simplify classifications or concentrate on priority expenditures when formulating the forward budgets. Consequently, they become three-year projections of the annual budget items, with a huge number of votes, sub-votes, heads and sub-heads with several line items under each one. The turgid and unwieldy process would tax the patience and resources of a highly sophisticated and fully automated adminsitration.

Fourth, there is little or no flexibility allowed to ministries in shifting resources between budget items, particularly between the capital and current budgets. Moreover, although the Government is aware of the need to rectify the imbalance in favor of wage expenditures, the forard budget mechanism is not used to serve this end. This is because personnel expenditure is a "protected" category which ministries do not have the discretion to increase or decrease. Moreover, large salary increases have recently been granted, the number of civil servants is projected to rise (especially in health, education and agriculture), and public agencies are obliged to hire certain school leavers unable to find work in the private sector. In these circumstances it would be meaningless to attempt to use the forward budget to set targets for relative personnel expenditures.

Fifth, the forward budgeting exercise has, until recently, been mostly confined to the Central Government administration: the activities of parastatals and other "autonomous" agencies hardly featured in the planning or budgeting process, though they inevitably had a major impact on budget execution through, for example, their subsidy and capital transfer requirements. The Government has expressed its intention to correct this situation and to involve both parastatals and local authorities in the preparation of the forward budget: the Treasury has been instructed to issue appropriate guidelines.

Sixth, the major preoccupation of the Treasury has been to keep global expenditure below ceilings which are calculated on the basis of revenue projections, deficit/GDP ratio assumptions and historical expenditure patterns. By contrast, relatively little attention is paid to the analytical work (project evaluation, economic categorization, etc.) which is supposed to be carried out by the Special Planning Groups. As noted earlier, these groups, which are chaired by planning officers from the Planning Ministry, rarely meet and are not equipped to carry out this analytical work.

Seventh, the Development Phase itself, which is supposed to provide the basis for forward budget projections, does not contain a systematically formulated list of sector projects. Rather, overall ceilings are set for sector ministry development expenditures with little attention paid to content. Links betwen the Finance and Planning Ministries are, moreover, weak with the latter participating to only a limited degree in budget execution.

Finally, the forward budget has no legal status, unlike the annual budget which forms the basis for the finance law. Even though, as part of the new BRP, the Authorities have issued greatly improved and more comprehensive guidelines on how to prepare the forward budget and review investment programs, sector ministries will inevitably continue to pay more attention to the annual budget which has a much more direct impact on the resources actually made available to them. Moreover, these comprehensive circulars need to be complemented by a widespread training program, at both core and sector ministry level, or both the aims and techniques of forward budgeting.

The difficulties associated with Kenya's forward budgeting experiments should not be construed as a condemnation of the system itself, any more than those encountered by industrialized countries imply the wholesale rejection of program budget techniques. Indeed, there is no question that the forward budget has been a useful instrument in helping the Government to think more systematically in terms of expenditure priorities. Recent progress in overcoming come of the difficulties discussed above is, moreover, encouraging. Nevertheless, the Kenya example provides at least four valuable institutional lessons which can be of great use to countries trying to improve budgetary processes. First, the regulation of the system should be kept as simple as possible so as not to overtax the limited administrative and technical capacity available to most governments. Second, the process should be organized to allow ample time for full discussion by all interested parties. It may well be that in the final analysis the Finance Minister or Head of Government will have to act as arbiter; but if the system is to succeed it is essential that all interested parties fully participate in the preparatory process. Third, the ministry or department responsible for the plan should be closely linked, and in close alliance, with that responsible for the annual budget. If this is not the case, then it is inevitable that the exigencies and time pressures of the annual budgeting exercise will take precedent (it is, after all, the Treasury which signs the checks!) and the exercise will be perceived as a Finance Ministry preserve. Fourth, it is essential that the budgeting process be as integrated as possible, covering all public sector entities which have a significant impact on public finances. These considerations lead on to two vitally important aspects of the budget as a developmental instrument: its coverage and its organization.

G. National Public Expenditure Planning in Papua New Guinea (PNG)

The National Public Expenditure Plan (NPEP) in Papua New Guinea, which was applied during the late 1970s and early 1980s, was conceived as a

method of resource allocation distinct from both conventional and theoretical program budgeting, though sharing some of their characteristics. While there was considerable dissatisfaction with traditional methods of resource allocation, experience had shown that most developing countries had neither the data nor the trained manpower needed for the kind of detailed planning involved in the program approaches and that this was particularly true of PNG. The country was especially poorly equipped to select projects on the basis of social returns. Since program budgeting involved the prior reclassification of all expenditure as well as a cost-benefit approach to allocations; it was likely to prove complex and difficult to implement.

The NPEP aimed therefore to allocate public expenditure through the budget on the basis of policy-determined priorities. An overall ceiling on public spending would be derived from macroeconomic considerations, including growth of revenues, expected capital inflows, etc. Aggregate public expenditure would then be divided into a number of sub-budgets, each directed towards a specific goal such as food production and nutrition, other economic production, social welfare, development of relatively backward regions, urban management, environmental protection and so on. Priorities would be laid down by the Government between these "strategic objectives" and translated by the planners into allocations of funds. The intention was that all public spending should be covered, bringing general administration and security into the strategic allocation framework. No distinction was to be made between current and capital expenditures, to avoid the danger of associating development only with the rolling exercise. In essence NPEP was an adaptation of the UK Public Expenditure Survey Process, simplified to suit conditions in PNG.

NPEP has been an effective instrument of macroeconomic policy, curbing the growth of government expenditure in a period of severe resource constraint. It has enforced a system of priorities and strengthened internal controls on new items of public spending. The concept of forward budgeting has also taken root. Despite these important advances, the system as applied has a number of shortcomings:

(a) At the start of NPEP the idea of comprehensive expenditure planning was given up as an immediate aim, largely for political reasons, and the methodology was applied only to new activities, leaving prior expenditures to be budgeted as before. The anticipation that the non-NPEP part of public expenditure would decline in relative size and importance was not realized, and the "NPEP wedge" accounts for less than a quarter of all expenditure.

(b) Whereas NPEP became the exclusive concern of the newly created National Planning Office (NPO), the non-NPEP budget remained with the Finance Department, creating inevitable institutional conflict.

(c) Since NPEP covers both capital and current costs associated with new activity levels, recurrent expenditure in such fields as education, health and rural development are divided in the PNG budget into NPEP and non-NPEP components, leading to confusion and overlapping.

(d) The "strategic objectives" defined to serve as the basis for PNG's national development strategy have not proved to be particularly helpful for budgetary decision-making. They cut across both departmental responsibilities and the functional classification of expenditure. Ex ante the development agencies do not have ceilings to work against, or expenditure targets by objectives, though ex post the expenditure is cross-classified by agency and project.

(e) The "strategic objective" approach, coupled with the "project" basis for the allocation of NPEP funds, makes sectoral planning difficult.

(f) Although NPEP is a four-year rolling plan in concept, in practice it has tended to be largely a year-to-year budgetary exercise. The forward budget format has little operational content; very few projects are initiated in the later years.

(g) Altogether NPEP procedures for approval, funding and modification of new activities are too elaborate and rigid. They are uniform for both large and complex projects and for minor schemes, even for small staffing additions in existing organizations. As a result, the NPO is involved in detailed budgeting and expenditure control that it has little time for the more important tasks of policy analysis, establishment of investment priorities and inter-sectoral coordination.

H. The Administrative Reform Program in Jamaica

The fundamental objective of Jamaica's Administrative Reform Program (ARP), supported by a World Bank technical assistance loan approved in May, 1984, was to strengthen the line ministries, particularly those critical to structural adjustment and long term economic development. However, it was determined that before improved management structures could produce results in the line ministries, the "administrative environment" primarily set by the three core agencies -- Finance and Public Service Ministries, and the Public Service Commission -- would have to be profoundly changed. With regard to the Ministry of Finance, the ARP aimed to: (i) restore its institutional capacity by rationalizing its organizational structure, upgrading staff and physical facilities, and creating or revising procedures and systems in the areas of budgeting, financial administration, and public enterprise control; (ii) strengthen the staff support for the senior civil servant (Financial Secretary) to enable him to devote more time to planning and policy work rather than crisis management; and (iii)

install, over a five year period, a performance budgeting and review system throughout the Government, including the creation of the necessary institutional capacity in both the Finance Ministry and line agencies.

A review which took place some three years after the loan was approved concluded that notable progress had been made in presenting the budget on a performance basis. Virtually the entire budget would be using the PBS format by 1989; even more significant was the conclusion that the new method had "already led to a better definition in some ministries of lines of responsibility and has helped pinpoint financial, management, staff, and contracting problems impeding the timely attainment of stated objectives. The quarterly review system has reportedly proven to be especially useful in bringing about a better interaction between managers and operating staff." The initial project brief, moreover, concluded that "a real improvement in the financial management and control of the Central Administration" could be observed in recent years. The Government had carried out two SALs and Stand-bys "successfully" while achieving considerable progress in financial management: revenues had increased, expenditures fallen and the fiscal deficit reduced from nearly 25 percent of GDP in 1984 to about 7 percent in 1987. Politicians and senior civil servants considered that the ARP had played an important role in these achievements and wished it to continue.

Despite these important successes, the installation of the budgetary reform itself was proving problematic. In late 1987, a mission suggested that fresh thought be given to the implementation of certain features of the proposed performance budgeting system, taking account the limitations of the Jamaican administrative system. In particular:

(a) the government-wide installation of a <u>working</u> system looks unlikely to be accomplished by the target date of mid 1989, in the light of progress made to date;

(b) the government has not yet established a satisfactory link between the planning and budgetary processes essential to a performance budgeting system;

(c) the respective roles of the Budget Division of the Finance Ministry and the Planning Institute have not been clearly defined, and the integration of the Planning Project Staff with the Budget Division has not yet been successfully accomplished;

(d) as a consequence of (b) and (c) above, there are still two separate budgets for capital and recurrent expenditures for all ministries and departments, even the Ministry of Construction Works which was chosen as a pilot for the installation of the performance budgeting process;

(e) organizational units in the line ministries and agencies have not been realigned to match the new budgetary process;

(f) consequently, cost centers, which should produce measurable outputs or services with identifiable cost figures for each ministry and department, and take into account all relevant constitutional, institutional, and organizational aspects, have not yet been successfully established;

(g) there is a serious lack of qualified technical and accounting staff; many of those trained under the project have moved to other positions or have left the Government;

(h) consequently, there is no adequate cost accounting, even in the technical ministries; the current, essentially cash-based accounting model continues to be used; it is not designed to yield the information and analysis necessary for performance budgeting;

(i) evaluation of results is rendered difficult by the lack of capacity to check work in progress except in cash disbursement terms; and

(j) the leadership role assigned to the Budget Division of the Finance Ministry (essential for the successful installation of any new budgeting model) has not materialized in practice; there seems, indeed, to be a lack of close cooperation between the Division and those responsible for implementing the ARP. As a consequence, the momentum and enthusiasm manifest in the early stages of the project, has been lost.

As a result of these difficulties, the budgetary reform has largely stopped at the format preparation stage, and performance budgeting concepts have not yet been introduced as a working management tool even in the selected pilot ministries. Care should, however, be taken not to interpret these results as a wholesale condemnation of the system and all it is designed to achieve. Three years is a very short time for the successful introduction of reformed budgetary systems even in industrialized countries. Many of the problems encountered in Jamaica were familiar in France three years after RCB began to be introduced there. As shown above, by persisting with the improvements, the French now have a budgetary system which, although a long way removed from the total conversion to RCB originally envisaged, is able to draw on the concepts and intellectual discipline involved in the preparation of RCB to benefit the financial management system as a whole and to improve the budget as an economic policy tool. It would be a pity if the Jamaican Authorities were to become so disillusioned by the early setbacks that they abandon the attempt at budgetary reform. Many of the concepts embodied in performance budgeting are sound. If there is a major lesson to be drawn from Jamaica's experience of the ARP (other than the normal ones concerning the institutional, procedural and political prerequisites for successful reform which are discussed in the main text),

it is that outside agencies like the Bank should be careful not to raise expectations too high. Five years was always too short for such a major reform effort in a politically sensitive area. It is useful in this and similar endeavors to obtain some sound successes which can help to maintain momentum. High initial expectations, when unfulfilled, yield disappointment and disillusion.

THE BUDGETARY DECISION-MAKING PROCESS

A. Introduction

This annex serves the double purpose of summarizing a number of the concepts and issues dealt with in the text while at the same time focussing on those areas of the decision-making process to which Bank staff could fruitfully pay particular attention. Clearly, this process varies substantially from country to country so that the discussion inevitably suffers from a degree of generalization and abstraction. Nevertheless, it aims to highlight the main defects frequently found in the process and hence point the way towards improvements in procedures and institutions required to make public expenditure a more effective development instrument.

The annex first describes the framework for a typical budgetary process, and then goes on to discuss how, in practice, each stage presents a number of institutional and procedural difficulties which lead to deviations from the idealized schemata. It concludes by considering some of the more common responses by both central and line agencies to defects in the budgetary process. These responses frequently have damaging consequences of their own for the effective conduct of fiscal policy and of economic policy in the wider sense.

B. The Budgetary Process: A Schemata

A typical budgetary decision-making process is summarised in the following table. The table presents an essentially theoretical, even idealized framework, from which practice can deviate in a number of important respects. The first column refers to the steps which should normally be followed in a typical budgetary cycle, while the second outlines the most commonly observed methods by which each step may be carried out.

Budgetary Decision-Making Process: Typical Steps, Methods and Agencies Involved

Steps	Methods and Agencies Involved
(i) Determination of overall level of public spending within budget period.	(a) Estimate of global ceiling by the central authorities communicated to sector agencies.
	(b) Estimate of individual program costs by sector agencies communicated to central agencies for compilation and aggregation.
(ii) Initial allocation of estimated available resources between sector agencies and/or programs.	(a) Current budget: allocation usually by agency rather than program. Core agencies send sector agencies budget circular indicating economic prospects, broad policy objectives, and how the budget is expected to help attain them. On this basis, the circular should justify proposals for increases and reductions in agency allocations.
	(b) Budget circular restricted to general statement of resource availability and policy objectives, allowing the sector agencies to respond with their own proposals for allocation.
	(c) Capital expenditure: sector agencies present proposals for new projects based on criteria indicated by core agencies, including rate of return, availability of financing, implementation capability, and consistency with overall economic and social objectives. Time table, again prepared by sector agencies proposes annual breakdown of expenditures for inclusion in the budget.

(iii) Response of sector agencies to budget circular.	Negotiations between core and sector agencies usually at technical level, the Cabinet having already decided on broad aims and priorities. Approach often incremental, with scrutiny of previous expenditures rare, and focus almost exclusively on proposed increases. Negotiations may be conducted on the basis of programs, but most frequently on line items (salaries, materials etc.) which cut across programs. The success of requests for higher allocations based on political bargaining power of sector agencies concerned.
(iv) Preparation of draft budget document.	This is the responsibility of the core agencies. Since requests generally exceed resources, it is inevitable that core agency technical staff will have a major input through adjustment, integration and harmonization.
(v) Approval of draft budget.	This is at Cabinet level and can be a lengthy process. Due to alterations by core agency technical staff (see step iv), what spending ministers read may be significantly different from what they thought their officials had agreed to. A return of a draft budget for revision and modification may occur several times during the cycle.
(vi) Preparation of final budget for presentation to legislature.	This is the responsibility of core agencies. This can be a technically complex task, involving the preparation of a cogent summary and copious annexes.
(vii) Consideration by the legislature.	Depending on the country, this may be the most difficult part of the process. If the legislature takes its task seriously, the review can involve several sessions: (a) consideration of budget framework, including macroeconomic policies and assumptions behind revenue and expenditure forecasts; (b) examination of detailed proposals at budget committee and subcommittee level; and (c) final plenary session to pass budget into law.

(viii) Budget implementation: release of funds.

Core agency responsibilities include administering payments to sector agencies so as to ensure adequate control over the flow of expenditures. There are three basic methods: (a) immediate release of entire budgeted amount to sector agency accounts; (b) release of funds against payment vouchers or receipts showing that the sector agency has effected or is about to effect payment; (c) periodic release of funds to sector agencies (e.g. one-twelfth of the budgeted amount per month or one-fourth per quarter).

Sector agency responsibilities include: (a) preparing forecasts of requirements over the year; (b) preparing commitments; and (c) acknowledgement of receipts of goods and services and certification of expenditures on them.

(ix) Budget implementation: capital expenditures.

Sector agencies are normally responsible for project implementation. This includes the preparation of forecast expenditures over the year, and the organization and administration of bidding and contracting procedures. Core agencies would be responsible for ensuring that laws and regulations had been complied with before releasing funds.

(x) Budget implementation: procurement

Core agencies should be responsible for establishing uniformity in contractual procedures to ensure as many competitive bids as possible. Sector agencies should administer the procurement process including advertising, detailed cost evaluation (for comparison with bid prices), evaluation of bids, negotiation with contractors, and review of contractors' performance. Contracts should only be awarded after budgetary allocation is assured.

(xi) Budget implementation: reporting.	Sector agencies should prepare periodic (monthly or quarterly) progress reports and accounts, which should be consolidated and annualized by the core agencies.
(xii) Monitoring and evaluation.	Responsibilities of the sector agencies include: (a) periodic review of actual expenditures; (b) analysis of variations with budget estimates; (c) analysis of budgetary lags; and (d) matching financial and physical progress. Core agencies should (a) conduct periodic overall progress reviews independently or jointly with the spending agencies; (b) revise policies and objectives where appropriate in the light of these reviews; and (c) reallocate funds where necessary. (NB. In many countries, monitoring is carried out by a central body. This may be necessary where the capacity does not exist in the line ministry or sectoral agency; however, it is desirable that this activity should be carried out by those in close contact with the project in question).
(xiii) Budget implementation: cash management.	Core agencies should prepare an overall plan for cash management to ensure that borrowing is within limits and interest on debt minimized. Sector agencies should rapidly surrender excess funds or process requests for additional funds in a timely manner.

C. The Budget Process in Practice

(a) Determination of Overall Spending Levels

At each point in the process, a number of factors can combine to divert reality from the theoretical process described above. In the first stage, the core agencies should, in principle, determine the overall level of public spending within the budgetary period consistent with resource availability and macroeconomic stability. In fact, total spending may simply result from the mere compilation and aggregation of the expenditure requirements of each individual program or agency. The power of the core agencies to carry out their task is often limited by a number of factors. First, the relative political power of some of the spending agencies may be such that they can, in effect, determine what they will spend by recourse to higher authority than the core (or central) agencies. Second, forecasts of fiscal receipts are plagued by uncertainties especially when there is significant reliance on commodity taxes. Third, in many countries, not all foreign aid or borrowing flows through the central ministries. In Mauritania, for example, the core agencies had, until recently, little knowledge, let alone de facto control, of direct arrangements between sector agencies and foreign providers of funds. Fourth, aggregation of agency proposals leads to very notional magnitudes which cannot possibly help informed decision-making on a multitude of individual programs. Fifth, central authorities are frequently hampered in their judgement of agency proposals by lack of basic information on matters such as number of staff, what activities are underway, what they cost etc. The information gap generally becomes wider as one moves away from the central government agencies and towards the local authorities and public enterprises.

(b) Initial Resource Allocation

Many of the decisions involved in the next step, the initial allocation of the estimated available resources between individual agencies and/or programs, may already have been subsumed in the previous stage. Again, this would depend upon the relative political power of the core and spending agencies. A number of other factors may also intervene to undermine the theoretical process. For instance, budget circulars may not be systematically prepared and distributed in a timely manner. They may contain no cogent indication of the government's goals or how these are to be met through the budget. The estimate of the resource envelope may be grossly inaccurate for reasons cited above. Core agencies sometimes resort to deliberately underestimating it in order to increase the degree of de facto central control over resource allocation. This in turn can lead to the proliferation of supplementary budgets which may increase the likelihood of hurried expenditure allocations for ill-thought out purposes.

It is at this stage of the process that the quality of the information available to the core agencies becomes a vital consideration. Indeed, it is often possible to identify the key decision points in the

cycle, by tracing the flow of information or lack of it. Financial data, which is the basic raw material for effective budget formulation, may be scattered in various ministries and agencies. Accounts and accounting systems may not be uniform and may well be in conflict with each other. For example, the codification and accounting systems are often different for the current budget, prepared by budget office in the finance ministry, and the capital budget which is the responsibility of the the planning authority. Both of them may be inconsistent with the accounts in the treasury department of the finance ministry which is responsible for administering actual payments. These difficulties in the core ministries are often compounded by the fact that the sector agencies operate with their own sets of data which will again likely be different. Even when data are consistent, it is by no means unknown for the spending agencies to conceal the full cost of a project in an attempt to avoid an adverse decision. As a result, programs that have initially gained budget support on the basis of underestimation have subsequently ballooned (the "camel's nose" phenomenen). Again, some agencies operate with a different fiscal year to that of the central government which impedes attempts to achieve accounting consistency.[1] All this confusion not only involves officials in a duplication or triplication of data collection and processing, but is a major impediment to the use of the budget as a policy instrument. One of the most important improvements that can be made to a country's budgetary system is the construction and installation of a financial database which places all budgetary information,as well as the public investment program, on a common basis which can be shared by core and sector agencies alike. While this is a major undertaking, which can stretch over several years, the direct and indirect benefits are substantial. Among the latter are the fact that the construction and operation of a new information system will force different agencies to work together on solving budgetary problems and arriving at a common understanding of the issues involved in solving budgetary conflicts.

(c) Negotiations Between Sector and Core Agencies

The hardest bargaining normally takes place at the next stage, when sector agencies respond to the core agencies' initial proposals. One of the techniques most widely used in the subsequent negotiations is the incremental approach: rather than deliberating over the general desirability of continuing with an ongoing program or project, the authorities will simply focus on variations in outlays compared to the previous exercise, in practice concentrating almost exclusively on proposed increases. The implicit assumption is that no scrutiny of what was spent under previous budgets is warranted; complacency regarding existing policies becomes inbred; and the budgetary review process becomes one more impediment to the revitalisation of public expenditure management. Where incrementalism focusses not on programs but on line item categories such as salaries, materials, debt service payments etc, the effects can be even more

---

1/ Although rare for ministries and other central government agencies, this is not infrequent for public enterprises and other decentralized entities.

pernicious. First, this involves yet a further departure from an objectives-oriented approach, and, second, by concentrating on the minutiae of line items, tends to lose sight of the broader policy issues. Nevertheless, these techniques are widely used and have stood the test of time in both developing and developed countries; these factors alone account for a large part of their appeal.[2] Although, in some countries, the influence of incrementalism has been diminished by changes in external circumstances[3] or through the introduction of medium term planning and improved budgetary techniques. In most cases, however, it remains deeply embedded in the decision-making process; reform efforts should be respectful of the hold it has over decision-makers and try to ensure that any suggested alternatives do not diminish still further the often fragile financial control over the spending agencies.

One of the consequences of incrementalism is that the budget process becomes almost exclusively concerned with the often small amounts available for additional spending. In a large number of countries, these are frequently below 10 percent of total foreseen outlays. As for the rest, the greater part of it is frequently "untouchable", either for political reasons (salaries) or because of financial agreements which the government must honor (debt servicing). In such circumstances, there is clearly little or no room for adjustments or adaptation to unforeseen changes in the economic environment. If the budgetary gap turns out in practice to be too large to finance, then recourse must be had to a number of potential palliatives. Debt servicing obligations may be reduced through rescheduling, or the inflow of new foreign resources may be increased through negotiation. Frequently, however, it is the capital budget, together with operation and maintenance expenditures, which bears the brunt of the cuts. In some countries, where there is a separate development budget, it is not unknown for current account line items to be shifted to this budget in order to secure financing, sometimes from donor-provided funds. This clearly impedes a government's ability to "deliver" the genuine development expenditures as programmed. Nor can it be expected that a more relaxed financial background will lead to a more rational structure of public spending. On the contrary, it often leads to a deterioration: salaries and fringe benefits are ususally increased, together with the numbers on the public payroll, while less attention is paid to quantitative selection procedures for new projects and programs.

(d) Cabinet Approval

Negotiations between core and sector agencies can be quitelengthy, and several modifications may be required when the draft budget is considered at Cabinet level. The time taken by the whole process causes

---

2/ See especially Aaron Wildavsky:"A Budget for All Seasons: Why the Traditional Budget Lasts" in G. Bruce Doern and Alan M. Maslove eds: "The Public Evaluation of Government Spending", Institute of Research on Public Policy, Ottawa, 1979.

3/ For example, the financial crisis may be sufficiently grave so as to pose challenges to traditional allocations of resources; this is, however, comparatively rare.

major problems in many countries, both developing and developed. This can become particularly acute if the cycle has to cope with significant changes to the technical draft as a result of Cabinet intervention. This may lead to revisions in expenditure ceilings which require changes throughout the budget. As the time between the draft and final budgets is nearly always short, spending agencies may find it difficult to make adjustments within the constraints of the budget calendar. The ad hoc budget that emerges from this may well be very different from the approved budget that reflects the full adjustments. The same thing may, of course, happen when the changes are effected by the legislature, or occur as a result of a higher than anticipated rate of inflation. Much needed manpower and skills that should be devoted to budget implementation are therefore required to change the budget.

(e) Consequences of Fragmented Responsibility

Added to the problems of time are those of fragmented and uncoordinated decision-making, often linked to blurred lines of authority and roles between agencies. Although these characterise most economies to a greater or lesser extent, attempts to reinforce decision-making capability at central level lead to a particularly acute dilemma for developing countries. On the one hand, economic and financial crises combine with weaknesses in the management capabilities of the spending agencies to render a stronger degree of central control over expenditures indispensable. On the other, the central authorities often lack the means, both in terms of manpower and information, to make central control effective. Expenditure management can thus get bogged down in lengthy procedures, subject to judgement by actors far removed from the consequences of their decisions.

These procedural and institutional difficulties are frequently reinforced by the structure of authority and role designation within an administration. This varies from country to country and is a reflection of the culture of the society. In some cases, executive authority as such may simply not be acknowledged; instead of decisons being deliberately taken, matters may simply evolve depending on the relative political strength of different parties at different times. Even where this is not the case, it is frequently observable that different roles are not clearly delineated and that authority is, consequently, fragmented, unclear and uncoordinated. Fragile political and administrative structures tend to become highly personalized so that the authority boundaries of an agency can expand and contract in accordance with its leadership and staff capability. Even within more established and sophisticated structures, lines of authority become blurred as a side effect of efforts to build consensus. For example, the preparation of the draft budget should be the responsibility of, say, the budget bureau or corresponding office in the finance ministry. The attempt to secure the agreement by participation of other agencies may lead to a

dilution of the primary agency's responsibility.[4] Moreover, key agencies are often internally divided; this tends to be even more acute at a political level. Cabinet consensus may be difficult or impossible to attain. Then there is the role of the legislature. In new democracies, or countries recently restored to democracy, the legislature may insist on a much more active role in budget decision-making, and at a much earlier stage of the process than the executive is accustomed to. Even in established democracies, the legislature may have a heavy role to play in budget formulation which can contradict or supercede that of the executive (e.g. the United States).

In the short term, the state of the art on expenditure management offers little to governments wishing to solve these dilemmas. In the longer run, the development of adequate expenditure management capabilities in the spending agencies is an essential prerequisite to more effective decision-making. Once this is installed, it could be reinforced by the gradual introduction of a system of "control through incentives" somewhat parallel to the methods of monitoring and supervision of public enterprises frequently advocated by the Bank. In essence, this would mean the establishment of a system of target setting and performance monitoring linked to rewards and prnalties for the individuals involved in budgeting and executing the activities concerned. Such ideas are far from new. In the

---

4/ Many administrations resort to the use of committees in an attempt to build consensus. However, considerable attention should be paid to their composition and terms of reference since otherwise they can easily have a number of nefarious consequences for the budgetary process. First, decision-making by committee generally takes longer. Second, the outcome of committee deliberations tends to be highly dependent on the characteristics and interelationships of the individuals involved; it is thus less predictable and more arbitrary. Third, committtee membership may well be short lived; accountability is thus undermined. Fourth, unless all affected parties are represented, they may well try to undermine committee decisions; on the other hand, insuring their representation may well make the committee unwieldly. Recourse to committees is often a substitute for more deep-seated reform of the core institutions; it is motivated by the powerful forces of consensus building and dilution of responsibility. Unless roles are clearly defined, and along with them areas of responsibility and accountability, it is to be expected that agencies and officials will take the safe route of committee formation. A more promising approach over the longer term would be to undertake a reorganization of the key agencies and their interrelationships. This would imply redefinition of job descriptions, assessments of manpower requirements and perhaps some modifications in the govenment's overall organization chart.

late 1960s, Schultze[5] suggested that incentives be included in the design and formulation of the budget and of individual budgetary programs. These should clearly not cover the whole gamut of government spending, but could be applied in areas which lend themselves more readily to the specification of output, costs and measures of performance. The practical application of such an approach is limited by the philosophy of public service which does not normally include direct performance incentives in the carreer path of state employees (at least in central and local government). However, selective application of this approach may be worthy of further exploration.

(f) Implementation Issues

These can conveniently be divided into problems of control and cash management. By control is meant not merely ensuring that expenditures are kept within limits imposed by resource availability (itself a difficult task), but also that they reflect the broad goals of policy. Most expenditure management systems in developing countries lack the means to achieve control in this broader sense. Specifically, they often do not have:[6]

- a well-defined work program for each of the spending agencies indicating forecasts of when financial and other key resources will be needed;
- a system of periodic reviews to replan and reschedule in the light of previously unforeseen obstacles and/or changes in costs;
- an established procedure of periodic releases of funds to spending agencies relating financial flows to the program of activities;
- a financial management information system providing an up-to-date and accurate account of commitments, expenditures and the status of funds allocated for a particular activity and/or to a particular agency;
- a well-functioning and adequately supervised procurement system for the acquisition of goods and services;

5/ See Charles L. Schultze: "The Politics and Economics of Public Spending", the Brookings Institution, Washington DC, 1968, and "The Role of Incentives, Penalties and Rewards in Attaining Effective Policy," Government Printing Office, Washington DC, 1969.

6/ For further details, see F. Khalid: "Budget Execution and Cash Management," in "Issues in Budgeting and Expenditure Control," IMF, 1982.

- a simple but functional reporting system for verification of work in progress, tailored according to the varying requirements of the levels of hierarchy involved in budgetary execution and subjected to an institutional review process (monthly, quarterly etc. depending on the importance and nature of the activity); or.

- an evaluation and audit system, administered by an independent body (either within the government or answerable separately to parliament), capable not merely of financial audit but also of the extent to which a project or activity realized its wider goals.

Consequently, there is, at best, an overemphasis on financial control as an end in itself. This can reach the point where it seriously hampers the work of the spending agencies. Highly complex procedures for the release of funds are often combined with a confusion of the treasury function with that of expenditure control (i.e. funds will be held up at the point of release whether or not all steps have been properly carried out, since this is the only effective way of keeping within overall spending limits). This not only makes it nearly impossible for the spending agencies to plan their activities, but also rules out effective delegation of responsibility or the establishment of accountability in the use of public funds.

Good cash management (i.e. the meeting of the government's daily cash requirements at a minimum cost) can save governments substantial amounts, as well as supporting wider aims of monetary and fiscal policy.[7] Despite this, it is a neglected area of public expenditure management. There are three main reasons for this. First, spending departments rarely have incentives to manage their cash well, since the costs of poor management, in terms of interest charges, are usually borne by the budget, while the benefits accrue to the finance ministry and/or central bank. Second, budget execution focuses primarily on release of funds to line agencies, while the actual spending of the money is usually several stages further removed. Third, accounting information systems used most frequently by governments do not generate flow of funds data but concentrate rather on post hoc accountability for resources released to line agencies. The institutional prerequisites for effective cash management may also be missing. There is frequently no central authority responsible for this function. Because of defects in the budgetary system, or with a view to escaping surveillance as much as possible, line agencies often prefer to generate special funds over which they have control rather than return their surplus cash to a central pool. This can lead to a situation in which the core agencies are forced to borrow to meet the government's day-to-day cash requirements at a rate of interest higher than that earned on the line agencies' cash surpluses deposited with the commercial banks.

7/ For example, when the monetary authorities are trying to keep a tight hold on credit expansion, cash management procedures should not permit public agencies to build up large balances with commercial banks.

D. Typical Responses to Defects in the Budgetary System

The practical problems associated with the budgetary process have led both core and line agencies to adopt a number of ameliatory measures and methods to deal with conflicts and facilitate the allocation of funds to activities deemed politically important. The most common are extra-budgetary activity, earmarking of funds, and supplementary budgets. All these methods are, to a large extent, palliatives and substitutes for deeper, and hence politically difficult, institutional reforms. Moreover, their adoption can have damaging consequences for the government's ability to mange public expenditures effectively.

(a) Extra-Budgetary Activity

As a result of the defects in the traditional budgetary procedures, more and more activities tend to shift from the national budget to other sources or methods of financing. These are often less visible and hence less subject to public scrutiny. Numerous extra-budgetary funds are created, some of the them with donor encouragement and even active support, to ensure the establishment or continuation of agencies,programs and projects. Officials dislike the uncertainty and delays associated with normal budgetary allocations and much prefer effectively controlling their own finances. Donor influence is often a major factor; in some countries foreign funding does not pass through the national budgetary system. In Mauritania, for example, a recent study found that over 90 percent of investment expenditures are financed from foreign grants and loans and all are extra-budgetary. While useful in terms of operational flexibility and guaranteeing the continuation of some vital functions, extra-budgetary funds are frequently abused. In many countries it can be seen that funds are still directed to projects and activities that have outlived their usefulness; in some cases, they may even have ceased to exist, and the money is channelled to other, non-mandated uses. Moreover, they not only undermine practically all the principles of sound budgetary management,they can escape comparison with other uses of funds and hence the choices which should be involved in the budgetary decision process. It is of little use, however, to bewail their increasing prevalence while failing to address the deficiencies of the budgetary process itself, which are frequently their main cause.

(b) Earmarking

Earmarking is another technique widely used to circumvent the normal budgetary process. It can take the form either of a specific allocation of a percentage of revenues, or the direction of a particular category of revenue, to a particular agency. It is prevalent in Latin America and in East Asia. Although less conspicuous in systems inherited from the British or the French, it is increasingly practiced in Sub-Saharan Africa. At least in theory, it has a number of advantages. It can ensure funding for certain activities and reduces uncertainty. It can provide a direct link between the costs and benefits of a particular type of taxation.

It should ease performance measurement and the establishment of cost-cutting incentives. It can help the executive reduce the delays associated with legislative approval of the budget process. In practice, there are as many problems as benefits arising from these so-called advantages. The link between taxation costs and benefits is often obscure and not apparent to taxpayers. Administratively, the growth of earmarking undermines the authority of the central budgeting process and that of the legislature. It encourages an enclave mentality among those responsible for administering the funds. Agencies tend to become a law unto themselves and aggravate the complexity of the budget process. The resulting lack of fungibility of public resources often results in new expenditures being incremental rather than substituting for existing ones which are protected from cuts by their access to earmarked resources. Moreover, since most major new initiatives in public expenditure are financed externally, the end result is both an overall increase in public spending and an addition to the external debt burden. Access to nonfungible resources may also distort the sectoral pattern of investment, especially during fiscal austerity. Again, donors are often a major part of the problem: they encourage earmarking for similar reasons as extrabudgetary funds (which can also be financed from earmarked revenues). They often insist on the specific provision of counterpart funds for individual projects and programs, rather than allowing the government contribution to be financed from general budgetary allocations. This can lead to the accumulation of "slush funds" which the government may use for non-budgeted projects provided that they can persuade the donor to release the funds. In Zambia, for example, a large and ill-conceived expansion of the agricultural credit program was financed by PL480 funds from US food aid. In general terms, governments should be encouraged to phase out earmarking, though this should be gradual and accompanied by efforts to reform the budgetary process.

(c) Supplementary Budgets

Core agencies may resort to supplementary budgets in an effort to increase their de facto control over expenditures -- for example, by artificially depressing the total amount of resources in the initial budgetary envelope and then subsequently meeting requests through supplementary appropriations. Sometimes, the legal framework makes the use of such supplements unavoidable. In Colombia, for example, the constitution requires, first, that the budget be balanced in the formalistic sense that expenditures must not exceed legally confirmed resource availability, and, second, that estimated revenues not increase by more than 10 percent over the previous year's budget. This means in practice that the initial budget only partially covers expenditures during the year, so that a series of supplementary budgets are formulated as more resources become available. In recent years, there have been up to five supplements accounting for as much as 50 percent of the initial allocation. Inevitably, the additions are prepared in a hurry without an evaluation of their consistency with the original budget or the overall development strategy. Undesirable though such a system is, at least the core ministries maintain a degree of effective control over expenditure decisions. By contrast, in some Sub-Saharan African

countries it is the spending ministries which can determine the size of the supplements. In Zambia, for instance, the Central Bank maintains a "revaluation account" under which government payments are automatically made, whether or not the expenditure was authorized in the budget. Spending ministries are allowed to overdraw their accounts with Ministry of Finance approval being provided only retrospectively through the supplementary budget. In 1986, the supplementary budget was almost as large as the original operational budget and was the major contributor to a very large deficit. Again, as with earmarking and extra-budgetary funds, the only cure in the long run is a reform and streamlining of the main budget process.

PPR Working Paper Series

	Title	Author	Date	Contact
WPS24	World Bank Investments in Vocational Education and Training	John Middleton Terri Demsky	July 1988	W. Ketema 33651
WPS25	Israel's Vocational Training	Adrian Ziderman	July 1988	W. Ketema 33651
WPS26	Changing Patterns in Vocational Education	John Middleton	July 1988	W. Ketema 33651
WPS27	Family Background and Student Achievement	Marlaine E. Lockheed Bruce Fuller Ronald Nyirongo	July 1988	R. Rinaldi 33278
WPS28	Temporary Windfalls and Compensation Arrangements	Bela Balassa	June 1988	N. Campbell 33769
WPS29	The Relative Effectiveness of Single-Sex and Coeducational Schools in Thailand	Emmanuel Jimenez Marlaine E. Lockheed.	August 1988	T. Hawkins 33678
WPS30	The Adding Up Problem	Bela Balassa	July 1988	N. Campbell 33769
WPS31	Public Finance and Economic Development	Bela Balassa	August 1988	N. Campbell 33769
WPS32	Municipal Development Funds and Intermediaries	Kenneth Davey	July 1988	R. Blade-Charest 33754
WPS33	Fiscal Policy in Commodity-Exporting LDCs	John Cuddington	July 1988	R. Blade-Charest 33754
WPS34	Fiscal Issues in Macroeconomic Stabilization	Lance Taylor	September 1988	R. Blade-Charest 33754
WPS35	Improving the Allocation and Management of Public Spending	Stephen Lister	August 1988	R. Blade-Charest 33754

PPR Working Paper Series

	Title	Author	Date	Contact
WPS36	Means and Implications of Social Security Finance in Developing Countries	Douglas J. Puffert	August 1988	R. Blade-Charest 33754
WPS37	Black Market Premia, Exchange Rate Unification and Inflation in Sub-Saharan Africa	Brian Pinto	July 1988	R. Blade-Charest 33754
WPS38	Intergovernmental Grants in Developing Countries	Larry Schroeder	September 1988	R. Blade-Charest 33754
WPS39	Fiscal Policy in Low-Income Africa	Stephen A. O'Connell	July 1988	R. Blade-Charest 33754
WPS40	Financial Deregulation and the Globalization of Capital Markets	Eugene L. Versluysen	August 1988	R. Blade-Charest 33754
WPS41	Urban Property Taxation in Developing Countries	William Dillinger	August 1988	R. Blade-Cha 33754
WPS42	Government Pay and Employment Policies and Government Performance in Developing Economies	David L. Lindauer	August 1988	R. Blade-Charest 33754
WPS43	Tax Administration in Developing Countries: Strategies and Tools of Implementation	Tax Administration Division		
WPS44	The Size and Growth of Government Expenditures	David L. Lindauer	September 1988	R. Blade-Charest 33754
WPS45	State-Owned Enterprises and Public Sector Deficits in Developing Countries: A Comparative Statistical Assessment	Govindan Nair Anastasios Filippides	December 1988	L. Mattheisen 33757
WPS46	The Management of Public Expenditures: An Evolving Bank Approach	Robert Lacey	January 1989	L. Matthiesen 33757

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Jueves, 6 de abril de 1989

Sesión 8

09:30 - 10:15

Tópico: Diseño y Administración de la Reforma Tributaria

Conferencista: Sr. E. Aninat (Consultor, Banco Mundial)

Lectura Requerida:

1. **Aninat**, Eduardo, "Modern Issues of Tax Reform and Tax Administration: A Case Study on Chile, 1975-1985", March, 1989.
2. **Skinner**, Jonathan, "Do Taxes Matter? A Review of the Incentive and Output Effects of Taxation", University of Virginia and NBER, May, 1988.
3. **Gillis**, Malcom, "Lessons from Post-War Experiences with Tax Reform in Developing Countries", January, 1988.

Modern Issues of Tax Reform and Tax Administration
A Case Study on Chile
1975 - 1985

by

Eduardo Aninat U.

Consultor
Banco Mundial
Washington, D.C.

March, 1989

Section 1 : The Overall Goals of Tax Reform in the Context of Structural Adjustment

Several developing countries are presently immersed in macroeconomic structural adjustment processes, in a foreign-debt burdened context. Various Latin American countries have implemented more or less ambitious programs of economic reforms in the recent past to confront to the main challenges of financial and economic imbalances that characterize the realities of the nineteen eighties. Theory postulates and experience teaches, that the role of fiscal policies in such programs is a crucial one.

This paper is devoted to the analysis of the tax reform side of fiscal policy. We utilize the chilean experience of comprehensive tax reforms in 1975 and 1985, for purposes of obtaining a better understanding of the role these played in the structural adjustment efforts of the country.

It is of interest to examine some of the special links that are established between major intended shifts in tax structure, tax administration and tax revenues (conforming elements of tax reform) and the results achievable in fiscal revenues required to meet the financing of prudent fiscal spending. Also in understanding the impacts that such tax reforms have in crucial areas of mid term adjustment: the promotion of private savings, the encouragement of greater foreign and domestic investments, the enhancement of higher efficiency in the allocation of resources of the economy. A related goal, which accompanies those enumerated earlier, is the achieving of desired vertical equity objectives (distributive justice) and should also be assessed when discussing matters of Comprehensive Tax Reform (C.T.R.).

It is easier to focus the discussion of this introductory section , by describing what -in our view - a policy of comprehensive tax reform will not normally achieve in the modal developing country case of the present. 1/

1/ This characterization intends to restrict the validity of our comments to a significant subset of the developing world.

It is our opinion that by following this rather indirect route for a preliminar discussion, we save a considerable amount of time and space, while being able to dipell a series of misconceptions that in several developing countries have surrounded the evaluation and postulates of tax reform.

If we focus in the medium term as a relevant time scope for policymakers, and if we consider in a realistic manner the range of feasible operational alternatives open to the governments of a significative number of mid-size LDCs undergoing structural adjustment processes, then we may be certain that for the following list of stated objectives tax reform policies per se will normally achieve an insignicant to low net beneficial impact:

a) generate welfare enhancing gains via a tax induced "fine tuning" of the mix of tradable goods and services, and of the mix of tradable sectoral activities in LDC's;

b) align in predetermined detailed ways (policy planned) the post -fisc personal distribution of incomes sustainable in the medium term, within reasonable ranges of tax burdens;

c) alter or secure in any decisive magnitude, the values and speed of the flows of Direct Foreign Investments and Foreign Savings forthcoming to the LDC economy, (except in an extreme undesirable and limiting case).

Latin America, Asia and Africa have in the past placed unwarranted weight in the expected contribution of C.T.R. policies as such , in matters of such importance as those described in the former list. This has tended, in more than a few instances, to discredit the effectiveness of tax reforms. But it has done so for the wrong reasons and under unreasonable evaluating standards.It is important, as we shall illustrate in later sections with the Chilean case, that policymakers and politicians at large be aware of these limitations of tax policies, specially in view of the strong and difficult country efforts involved in present-day structural adjustment efforts.

The first postulate a), simply states our present conviction that it is generally inefficient (in the welfare sense) and unreasonable to utilize comprehensive

tax reform policies for purposes of achieving "optimal taxation" type prescription with regards to the specific structure of foreign trade in LDC's. True, C.T.R. can conform one crucial input in a complex policy package of structural adjustment policies aimed at reforming the overall foreign trade and sectoral balances of the economy over the medium and long terms. More so, CTR is one rather powerful element for inducing restructurings of the allocation of resources among tradable and non tradable sectors, when the LDC economy starts from an initial position of gross non-neutrality and gross disuniformity of the tax and commercial policy treatment for goods and factors of production. The chilean case, in its experience 1975-88, is a rather good example of how bold and coherent combined policy shifts in the tax and foreign trade regime areas, have moved the dynamics of growth and development towards a greater active role played by the tradable (exports and imports substitution) activities, and to an altered mix of sectoral values added. (This is studied in the last parts of section 2).

The issue stated here does not at all pretend to ignore the well established fact that different combinations of taxes (alternatives of consumption-base taxes, income taxes, specific factor taxes, etc.) interacting with any given foreign trade regime, generate different impacts and results on the standards of efficiency and general welfare reached by the economy. One clear example of this is the replacement of given specific labor taxes (for example social security contributions) by a general value added tax; a policy shift with clear welfare and foreign trade impacts.

Our postulate simply warns against the feasibility of pretended "welfare enhancing results" supposedly achievable by policy-planned deviations from the benchmark of gross neutrality in the tax treatment of products and of economic transactions as such. Without ignoring the theorethical developments generated by the modern theories of "Optimal Taxation", we wish to allert against an over-optimistic reading of such advances, on the part of tax advisers and policymakers in LDC's.

As we shall explain further in later sections, from the points of view of both the available state of the art in the area of computable (empirically testable) general

equilibrium models applicable for these exercises to the relevant developing countries, and, the characteristics of the stage of political economy (lobbies, policy-erosions, feedbacks and counter moves) involving fiscal and trade policies in LDC's, we derive a most pessimistic view about the social Cost-Benefit results of C.T.R. type "fine tuning" of the exports and imports mix. Most probably, in most cases these kind of specific retailoring actions have been tried, they have produced long run welfare losses for society at large and significative disruption for the fiscal machinery as well!

The second postulate concerns the interest to re-do the distribution of personal incomes (defined at family or individual levels) by tax-planners' choice in modern LDC's. We must state that this is an unreasonable task.

Democratic societies in Latin America, Asia or Africa have traversed through a more than centennial period of conflictive, hard and complex processes of income and property redistribution. A power (and economic) game which has had positive progress on the whole, but has also encountered considerable backward moves in some of the recent experiences.

With only some simplification and for illustrative purposes, it can be said that the state of the distribution of incomes at the personal level in such societies, reflects a sort of semistable balancing of three classes of interacting forces: those arising from the state of ownership of factors of production; forces arising from the institutional and economic functioning of product and factor markets; and forces arising out of the dynamic compromising which social groups reach in institutional arrangements concerning the public budget area (specially in the expenditures side of the Public Budget).

The way taxpayers finally adjust to the legislated tax shifts, as well as the interaction with other sides of the budgetary process (namely the expenditures side) make the final and effective overall incidence of <u>feasible</u> comprehensive tax reforms, quite blurred at the personal income level. Modern practice of public finance has tended to find that acting on a selective and prudent way at the social expenditures side of the budgetary process,

is able to achieve more lasting results in terms of benefiting the poorer in society.

In any case it is nevertheless also true that the scope for effective income redistribution (at the personal income level) via tax policy shifts is not very restrictive, if and when it is focused exclusively with regards to moves at some special or selective points of the income scale. In the case of some of the poorer population target groups, partial schemes for retailoring the bottom echelons of the income tax scale may partially benefit vast groups of the "formal poor". Similar favorable impacts may be obtained by introducing some coherent differentiation in VAT policies.

However it is also the case that an explicity tailored policy package of social expenditure programs (identified for and biased to the poorer) is normally today a more cost-effective way of achieving limited but favorable fiscal redistribution.

It is the case, non withstanding, that tax systems do have strong influences over the policy results forthcoming out of more simple and broad distributive comparisons: distributive issues focusing on the relative standings of wage earners on the one side and owners of capital on the other side; distributive issues concerning comparisons between consumers as a group, and, savers as the other group in society. Surveys, and statistical descriptions of sources and uses indicators of gross and disposable incomes in the present stage of development for a large part of LDC's, do show - however - how limited these gross categories for comparisons would be. At least for the purposes of generating very clear comprehensive welfare prescriptions out of them.

On several instances ill advised administrations in Latin America and other, have pretended that significative progressive income redistribution can be secured by the sole or dominant role of tax reform. Experience shows a rather dubious social Cost Benefit ratio in the medium or long term evaluation of such "naive" types of tax reform packages. Ideally we would desire that were not the case in the longer future...

Last but not least, regarding postulate c), there have

been some trends of thought that have generated a false illusion in terms of the effective sovereignty that LDC governments may exert in determining the effective level of taxation on profits and returns accrued by direct foreign investment. If we discard the more complex case of "rent seeking" foreign investors in the economy, and we focus on DFI acting in normal competitive sectors, then we can say in the open economy context that the best the developing country can do, is to effectively tax profits of DFI at the rate at which relevant host countries tax those investors back at home.

The rest of this paper will now proceed in a more orthodox and functional way. Having cleared the way from what we fear have been major phantoms surrounding the discussion of CTR in the sixties and seventies and part of the eighties, we now get into the description and analysis of how Chile has gone about (in the last thirteen years) restructuring its tax system in the context of major structural reforms in the economic system. We shall intend to derive from that particular country experience, some ideas of what should and what should not be attempted in comprehensive tax reform by other developing countries of similar conditions.

Our paper has concentrated on two major elements of chilean C.T.R.s as implemented in 1975 and 1984:
first, the replacement of the tradiditonal Sales Tax regime by VAT; second, the restructuring and major simplification of capital income taxation by going from (an original) traditional income tax scheme, to a (new) special class of "personal expenditures" type of taxation.

Section 2: Broad Based Consumption Taxes: Introducing the Value Added Tax in the Context of Trade Liberalization Policies

This section is primarily devoted to an analysis and summary evaluation of the introduction of the Value Added Tax in the context of a trade liberalization process as followed by a small developing country: the case of Chile 1975. We restrict our exposition to issues related to the following three questions:

(a) which are the main policy considerations to weigh when evaluating a shift from traditional sales taxes to modern VAT taxation in an LDC of the characteristics of Chile?

(b) how in fact was the tax reform introduced and implemented?, what administrative constraints appeared and how have these been faced?

(c) what have the results of this policy been, in terms of both fiscal revenues and of the buoyancy of the indirect taxation regime (domestic and trade taxes included)?

BROAD POLICY ISSUES TO CONSIDER

In examining the set of choices that must be made by a country contemplating the establishment of a value-added tax of a significative comprehensive nature we may quote those outlined by Carl Shoup in a recent seminar paper 1/

The chief decisions concern,

(a) Election of one from four broad types of VATs: the consumption type, the income type, the gross product type, and the personal-exemption type (a variant of consumption type).

(b) The choice concerning the regime for international trade: the origin principle and the destination principle.

(c) The method for computing the firm's VAT liability: the substraction method, the tax-credit method, the addition method.

(d) The choice of selected (if any) products, firms or sectors to be free of VAT,

(e) The technique of freeing from VAT: outright exemption or "zero rating",

(f) The sectors and firms (if any) that are though to require special rules or regimes,

(g) The choice between single-rate VATs and VATs with two or more rates,

(h) The choice between levying tax-inclusive VAT rates versus establishing tax-exclusive rates.

1/ Carl S. Shoup, "Criteria for Choice Among Types of Value-Added Tax", conference on the Value Added Taxation, Public Economics Division, The World Bank (Wash. D.C., 1986)

It is clear that important policy goals like minimizing the fiscal administration and private sector's compliance efforts, and reaching a reasonably "fair" distribution of tax burdens by income classes, generate a set of issues which cut accross the classifications (a) to (h) above.

But in actual operative tax policy practice, the fundamental question to ask ourselves is: how wide a choice does a developing country undergoing structural reforms have in deciding for the introduction of a value-added tax?

Given the chilean experience as well as the lessons derivable from other less successful Latin American country cases (Argentina, Mexico, etc), we believe by now that the relevant operative choice set is much more restricted than what is suggested by Shoup's interesting conceptual taxonomy.

To state it in simple summary terms:

the average developing country of Latin America, when inclining itself for a VAT at the political economy level of decision making, is heavily biased to accept the following basic blueprint:

decide in favor of the consumption type, use the destination principle, employ the tax-credit method, establish legislated rates on a tax-exclusive basis, and provide for some special treatment to a restricted number of goods and services and small firms (subsectors). What we have in mind in this aspect is not merely a "tax-consistency" criteria (à la Shoup...) but very practical considerations set in the domain of policymakers know-how; the political compromising; and the practical feasibility at the administrative and compliance level.

If we concentrate only in the cases of the core problem-choices confronted by middle income countries in Latin America having more or less recently introduced VAT, we can also say that the problems faced do not differ strongly from those that other industrialized countries (in Europe or Asia) have faced. Following Milka Casanegra (1), we can state that the nutshell of

1/ Milka Casanegra, "Problems of Administering a Value Added Tax in Developing Countries: An overview", Conference on the Value Added Taxation, op. cit. (Wash. D.C. 1986)

the factors determining whether the transition period of a tax reform introducing VAT, can be expected to be more or less expeditious and soft are:
whether and how the particular country has had previous experience with general sales taxes; the effectiveness of tax administration; and how the VAT will be structured in terms of rates, of exemptions and of the treatment provided to small taxpayers 1/

We would still add an extra determining factor for the transition the coverage of key public opinion perceptions regarding the technical and resource-allocation advantages avowed for a consumption-type VAT as compared to other more "imperfect" forms of indirect taxes. In the term "coverage" as used here, we encompass both the number of relevant leaders of opinion to be educated on the subject and the efforts leading to as well as their relative understanding of how the new VAT system would work. We shall see later, that this particular point proved to be quite decisive in securing a sufficient treshold of support for the major change implemented in Chile in January 1975.

Given the limited scope of this paper, we do not have time for elaborating all the specific interesting issues and policy aspects. But before going into an account of how Chile did it in practice, it is useful to mention from the outset that the most difficult area for evaluating the social Cost-Benefit impacts ofthis tax reform policy (replacing a complex and cumbersome set of production excises and retail sales taxes by a broadly based consumption VAT) lies in the vertical equity area. In fact, as we shall see for the chilean case, the area where VAT (as it was implemented) doesn't get a good grade, is precisely in income redistribution. This particular topic will prove important when researching the political stability of the tax reform in the longer term (see section 4)

1/ The last issue will prove particularly important in the Chilean case.

B. Background: Indirect Taxes in Chile before VAT and the Timing of the Tax Reform.

In order to examine what was done and how it was done in 1974-75, it is useful to introduce the nature of the changes, by summarizing first the historical background for indirect taxation in Chile.

In 1936 a general tax on production was levied at the rate of 11.5 percent. This taxed the first transaction of all movable goods. In 1954 the above was replaced by a General Sales Tax which established a tax of a cumulative nature on the sale of movable physical goods at a general rate of 3 percent, with a special rate of 10 percent for some goods. Two years later, services were incorporated at a general rate of 17 percent. In 1972, the law was modified so that the first sale (by the producer) was taxed at 17.5 percent while the final sale (to the consumer) was to be taxed at 4 percent. Sale of inputs between producers was taxable at a rate of 8 percent. In 1973 the 4 percent final sales tax was eliminated and the 17.5 percent tax was raised to 24 percent.

In December 1974 the General Sales Tax (Law 12.120 enacted in 1956) was replaced by a sales tax structured on a value added basis.

The reasons for adopting the VAT in Chile as the principal indirect tax were: the perceived inefficiencies in resource allocation encouraged by the existing tax system and the administrative complications caused by a cumulation of tax changes over the years (we may call the latter the "traditional piecemeal approach" to tax policy).

Since the existing (piecemeal) indirect tax system consisted of different tax rates at the stages of production, first sale and final sale, it naturally had to face the problem of defining "production process" comprehensively. To determine if the transacted good was a final product or if it was destined to be used as an input in the production of another good was a complex matter. This made the task of administering the tax a very difficult one. The subject also added considerably to a more or less continuous litigation process between the I.R.S. and taxpayers.

With regards to resource allocation issues at that time, there had been a cumulative process of education and awareness by policymakers and by tax advisers at the time, of important distortions that the general Sales Tax system et al had been generating in the chilean economy. Two of these are specially noticeable and were very openly discussed at the time of tax reform.

In addition to the distortions in the price structure caused by the differential tax rates, the tax system caused an excessive degree of vertical integration in the industrial sector since it taxed inputs at a lower rate than it did the first sale by the producer. Also, since the sales and services taxes were not integrated into a single tax, the system penalized commercialization by commision distributors as they had to pay a services tax on their profit margins.

Finally other two factors then, necessitated the imposition of a very high rate of sales tax. One was the reduced tax base. The other was the very high rate of inflation, which resulted in the tax revenue collected from the sales of preceding months being much smaller (in real terms) than would have accrued in a zero or low inflation situation. This situation obviously worsened during the months when real increases in the amount sold were registered.

As has been demonstrated by the historic experience with the sales tax, the existence of very high rates constituted an encouragement to evade taxes and to exert pressure for removal of the tax by legal means.

In the area of foreign trade, the varied tax rates charged on goods delayed the application of the principle of exclusive taxation in the country of destination (as approved by GATT and ALALC) because of the difficulty in estimating the exact amount of taxes that goods should be exempted from at the time of export. From another point of view, the former sales tax discriminated against national goods, as it left untaxed all foreign goods imported directly by industrial users.

All of these reasons, plus an implicit and powerful goal by the Ministry of Finance of securing a more income elastic and responsive fiscal revenue base, built up enough "pressure" at the policy level. So that, after several existing studies concerning VAT possibilities had been digested and discussed in relevant power circles, the tax reform was more or less easily introduced

by the very end of 1974. A lead process of one quarter was allowed between the date legislation was approved, and, the effective start period of VAT application (March 1975).

It is worth noticing also, that the macro context for the first year of VAT implementation was a very special one: Chile was striken that year by a heavy loss in its terms of trade, had inherited very high inflation rates (605 to 343% yearly) and the government of Pinochet decided - by late March 1975-to go for a fiscal "shock-policy" package, including not only tax hikes but severe and very speedy cutbacks in Government Expenditure Programs 1/

Perhaps the latter elements may help to explain why the rate of VAT was chosen, from the outset, at the very upper limit of the "tax revenue neutral" policy simulations which had been performed during 1974 in evaluating the pure fiscal consequences of this tax reform2/ The Chilean VAT general rate (very comprehensive in its base) was set at that time at 20%, which constituted one of the top ranking rates existing in the VAT systems of the whole developing world 3/.

1/ There was a major restructuring of the public budget at the time, which included large, across the board, cuts in current and capital outlays plus a series of program specific additional cutbacks.

2/ Simulation exercises had shown tax rates needed in the order of 14% to 16% at the time.

3/ As of year 1985, only one other developing country had a larger general VAT rate; and only four out of 25 countries had rates equal to 20%. The Chilean VAT base for the general rate was more comprehensive in any case.

B. Coverage, Base, Special Features of VAT Reform in Chile

The VAT in Chile taxed only transactions of moveable goods until 1976, the year in which services activities (whose remuneration was not considered labor pay) were incorporated into the VAT base. The base for application of the tax was the effective value of the transaction, including all the taxes implicit in the price of the transacted good, such as customs duties.

The seller is now the tax collector. Transactions have to be declared monthly, and paid within 15 days of the calendar month subsequent to the month in which the transaction took place.

The system was implemented following the tax-credit method. VAT to be paid by each taxpayer at, 20 percent, in a determined period can be written as

$$VAT_t = TD_t - TC_t = .2\,S_t - .2\,P_t = .2\,(S_t - P_t)$$

where TD is the fiscal debit, or the debt that the taxpayer has with the Treasury, TC is the fiscal credit equal to the VAT paid on all purchases necessary for the production of the good purchased, S is the sale price while P is the gross of all VAT production cost. When this formula has a negative value, the taxpayer does not pay VAT. The excess of credit over debit, which we call remnant credit, will increase the credit of the inmediately following period, adjusted for inflation.

The general rate of VAT was 20 percent between March 1975 and June 1988, when it was lowered to 16% (given the surplus of Government's fiscal accounts) which is the present legal tax rate.

VAT in Chile is of extreme comprehensiveness in the coverage or base. However, not all transactions are taxable under the VAT. This is due to the exemptions granted to a few goods and services such as education, bank interest, etc. Also, the tax falls only on consumption goods and not on capital expenses, whether of national or foreign origin.

Exports are not subject to VAT, as they are zero-rated. The law allows the exporter the total recovery of the credits supported in the acquisition of goods and of services received, which are directly related to the export. The exporter has the following

alternatives:

(a) impute the credits, as opposed to the debits of the local sales.

(b) apply for the refund to the Treasury after the export has been effected.

(c) apply in advance for the refund, proving the export commitments.

Special tax rates are levied under the VAT system, on the following categories of goods, in an intent by the legislator to introduce some degree of progressivity to the tax impacts:

(a) Luxury goods such as elaborated precious metals, motor cars, home air conditioners, video equipment are taxed at the rate of 50 percent. Yachts are taxed an additional 30 percent.

(b) New motor vehicles, alcoholic beverages and color TV's are subject to the usual rates, but only up to the stage prior to the final consumer's. The rates range from 15 to 70 percent.

No exemptions and/or differential tax rates have been established for items such as food or medicine.

With regards to the issue of relief provided to Small Business, the Chilean VAT system did - realistically - provide for a special treatment for taxpayers of that nature.

A series of direct qualifications for a taxpayer being classified as "small" were established in the original legislation: must be a natural person (individual merchant); must effect operations at the final consumer stage; must have a sales average equivalent to no more than 20 so called "tax value units' per month, during the course of a year 1/

This special feature of the VAT system determines a fixed monthly quota as fiscal debit per month, from which the fiscal credit

1/ The "MTVU" or Monthly Tax Value Unit is established and modified periodically by the Internal Revenue Service. The value of one such monthly unit, as of March 1989, is the equivalent to 32 US dollars.

that small taxpayers have sustained may be deducted or discounted. In case the fiscal credit is larger than the fixed fiscal debit, no refund is involved.

We believe that - on the whole - the characteristics described provide for an efficient impersonal small business relief scheme in the Chilean case, where necessary incentives for fairness in tax treatment are correctly set by the way these mechanisms interact through time.

C. Administrative Aspects of the Tax Reform

It is useful to consider each of the main administrative changes required for the implementation of VAT in Chile, as the principal source of indirect tax revenue. Bearing these in mind might prove useful for other developing countries, in terms of their own assessment of how feasible and cost-effective can these administrative shifts prove in improving their particular VAT administration systems. As relevant as the following listing of issues may be, it is not easy to derive direct generalizations of these; a case-by-case evaluation would be needed for each country situation.

In relative order of priorities, being all of these important moves, we may list:

1. Diffusion of the Tax Reform
   An intensive information and diffusion plan was begun in all economic, social and geographic sectors of the country; with obvious re-alignments in time this campaign has never ceased.

2. Staff Training
   A solid well focused training plan for Internal Revenue staff was developed and enforced with the object of dealing effectively with all inquiries and doubts of taxpayers, and so that the staff could effectively protect fiscal interests of the government.

3. Change in the Formulary System
   As part of the program, it was necessary to create a new administrative data system of formularies, considering those characteristics that would include all relevant information and help in attaining efficiency in management.

4. Internal Revenue Service Centralized Registers

The IRS centralized a complete register of VAT taxpayers containing all of their personal data and VAT declarations. This register is based on the "Rol Unico Tributario" (RUT), or National Tax Roll, and every VAT assessee is required to apply for inscription in the register before commencing activities. Considerable progress in ordering and national coverage, had already been achieved in Chile with the National Tax Roll prior to VAT's start in March 1975.

5. Staff Incentives
Another administrative measure consisted of a change in the IRS's staff remuneration scheme. As a means of encouraging staff to attain the high budgeted income required by the Treasury, a special bonus system based on percentages of the taxes collected was established. This could also improve remuneration levels in accordance with changes in administration targets (see Appendix).

Out of the six main administrative shifts considered, it is our experience that items 1 to 4 would normally constitute a set of core pre-requisites to reach a more or less successful transition in VAT tax reform.

It is interesting to point out, in passing, that countries which have not invested the required amount of money and quality of human resources in developing a computerized management information system on the matter, from the very outset of the reform, have sooner or later paid relatively high costs in runing the VAT system effectively. This is one specific area where high quality careful designs, should not be minimized or bypassed during the first years of the policy shift. Also, as the chilean case neatly shows, considerable positive externalities can be gained in the cross checkings and other complement effects between VAT computerized examination routines and Corporate and Individual Income Tax check-up routines /1.

/1. See the references given in Appendix to these cross-checking fiscalization and auditing routines.

D. Administration Costs, Compliance Costs and Tax Evasion Issues

It has been well documented in the literature that usually Value Added Taxes normally imply relatively high administrative costs as compared to some other alternatives for indirect taxation. Based on the work by Yañez and Izam 1/ we quote here evidence regarding absolute magnitudes for the estimated fiscalization and VAT revenue costs in Chile.

The mean costs of VAT administration are here defined as the ratio of direct administration costs of the tax to fiscal revenues collected. Relevant numbers for Chile indicate that by the third year of VAT's life (1977) mean costs were in the order of 1%. By year five (1979) these had declined to less than 1/2 of percent and by year seventh of VAT's history they became lower than 1/2 percent.

These results are surprisingly favorable, since other authors have established that the typical range relevant for these costs lies between 1% and 2% as a rule in LDCs.

Also, in the chilean experience, the mean costs of VAT administration (as here defined) are far below the overall mean administration costs for all tax items combined, during the same time framework quoted.

Second, special computations have been done for estimating a particular version of so called "compliance costs". We do know how complex it may be to define conceptually these costs and further to correctly measure them. But if we accept a particular version of compliance costs as meaning " the expenditures devoted by the tax authorities aimed at reducing the compliance burden of taxpayers", some figures may be provided for the yearly experience 1977 - 1981.

In the case of VAT, these "compliance costs" start at 1.7% of each tax peso collected during 1977, ending at 0.7% by year 1981.

1/ José Yañez and Miguel Izam, "Los Costos de Recaudación y Fiscalización de los Impuestos en Chile: Un primer intento de medición 1977-1981", Estudios de Economía Nº20, Universidad de Chile.

Thus, it is clear than mean "compliance costs" have been and probably still are more important than pure administrative collection costs; also their gap has - on average - widened in recent years. Additionally the comparison between VAT "compliance costs" per peso collected, and the overall taxes "compliance costs" in Chile show (on average) similar figures.

All of the above elements are the results of one clear tax policy trend easily verifable in the modern history actions of the IRS: the fact that substantial efforts have been undertaken to control VAT collections (attacking erosion and/ or potential evasion) due to the high fiscal profitability of these IRS programs.

In particular (see Appendix for further details) one of the follow-up methods used by the chilean IRS, in the study and evaluation of taxpayer trends is the debit/credit relationships.

The debit/credit ratio of a particular taxpayer is obtained and is compared with the mean value of this ratio for that class of activity (sector or subsector) and region. If it is significantly different from this mean, tax evasion is strongly indicated. Also, if a taxpayers debit/credit ratio consistently remains less than 1, tax evasion is suspected. The "predictive efficiency" of this method has been improved by the existence of a single tax rate and very few exemptions. This is one area where computerized systems have aided considerably tax administration and tax fiscalization. Educational campaigns about these issues intelligently addressed to potential and actual taxpayers have also rendered rather high pay-offs in the effectiveness of the system, while improving the horizontal equity results overall.

E. Fiscal Revenue Results of the Tax Reform

It is evident that in any LDC undergoing structural adjustment whilst coping with fiscal imbalances (deficits), one key goal of tax policy is the fulfillment of budgeted tax revenue objectives.

One of the important conditions set by the tax authorities in implementing the VAT was that it had to collect at least as high and preferably higher revenue as that generated by prior indirect taxes. This restriction was explicitly incorporated in simulations conducted for various VAT alternatives in 1974. Therefore it is reasonable to assess the performance of the VAT with regard to the revenue results attained during the period 1974-1985.

For this purpose, we divide the discussion in three parts: the analysis of the shifts that occurred in tax revenue composition, a discussion of the structure of tax collection arising from the various components of VAT law, and finally a simulation exercise performed for VAT revenues originated from the imports base, given that the country was undergoing an important liberalization process with regards to foreign trade during 1975-1980.

Although no exact correlation can be drawn, comprehensive tax reform legislated during the second half of 1974 undoubtedly led to major changes in tax composition. Taxes in Chile are of both the direct and indirect types and between 1969 and 1974 indirect tax revenues as a whole comprised about 43 percent of the total. The main difference between these two years were the shifts occuring in the shares of direct and other taxes. A very rapid and significant increase was experienced in total indirect tax collections after the VAT was leived. Indirect tax revenues doubled between 1975 and 1978.1/ This overall trend has continued until the present. Meanwhile, the share of indirect taxes in the total climbed to about 62 percent by 1980. By 1985, this ratio is about 74%. This trend reflects the success of conscious policies designed explicity to reduce the role of direct taxes and of other specific levies, and promoting the share of a general consumption tax such as VAT. 2/

1/ In this part we include tariff revenues in the definition of total indirect tax revenues.

2/ The results however may also indicate that the tax system became more imbalanced, in favor of VAT tax revenues, than probably what the same policymakers desired ex ante.

The definition of indirect taxes used here includes: the general sales and services taxes, excises included in so-called production taxes, and from 1975 onwards the VAT.

The role played by VAT revenues in this process has been significant, judged both in terms of their contribution in indirect tax collections and in total tax collection. VAT revenues by themselves today, represent close to 51 percent of overall tax revenues in Chile.

The share of the VAT in indirect tax collections rose rapidly during the period 1975-1978, when specific classes of commodities and services were incorporated to the VAT base 1/. This share rose again in 1979-81 when there was rapid economic growth, and has since stabilized at around 70 percent; although it is too early to judge what the mid-term effects of the general VAT rate adjustment done in July 1988 will be (legal rate decline to 16%).

The next step is to assess VAT collections as a function of the three major components: revenues collected from the general 20 percent levy, those collected from import taxes through the VAT, and collections from the VAT at special rates (normally surcharges above the general rate). The first category above produces close to 58.5 percent of VAT collections.

VAT revenues arising out of the imports base have oscillated substantially, and at present constitute about 38 percent of the total. Finally, a secular decline in the share of VAT from special tax rates has occurred, falling from about 30 percent during 1975-1978 to about 3.5 percent today.

The general policy has been consistently towards the adoption of a uniform and very comprehensive rate.

The before mentioned policy of tax uniformity, has payed-off in terms of fiscal revenue objectives. But it may have added unmeasurable costs in terms of the image of "regressivity" of VAT, which now prevails in various circles of politicians and of public opinion.

1/ On the data comparisons that follow, we have excluded the tariff revenue collections from indirect tax revenue figures (see graphs at end of section 2). In any case, by 1987 fiscal revenue from tariffs represented 23% of VAT collections.

F. Correlation between VAT Revenue Results and Import Liberalization Policies

It would be misleading not to point out the fact that several of VAT's performance standards in the chilean case, were impacted by the more-or-less simultaneous policies of foreign-trade liberalization. Of particular importance in its association to VAT revenues and fiscal revenues in general, was the evolution of import duties and of the imports base through time.

To mention first the orders of magnitudes of the macro shift in imports trade : when VAT was enacted in 1975 the total cif value of imports was in the order of 1 billion US dollars of the time, whereas this base had climbed to over 24 billion US dollars by 1977, and were around 7.3 billion by year 1981.1/ It is worth noting that the import flows mounted to US dollars 3.3 billion by 1985, and reached 5.1 billions in 1988. In sum, the VAT process has been run in the context of a foreign-trade "revolution" in the chilean case!

A summary account of the crucial liberalization of international trade and the reform of customs duties is provided next. (This account closely follows Sebastian Edwards' descriptions, which - in turn - were based on those by J.C. Méndez). 2/

According to traditional economic theory and in line with a large amount of empirical support, policymakers in Chile expected that opening the economy to the rest of the world would result in a reallocation of resources toward the sectors in which Chile had a comparative advantage, increased efficiency, rising exports, faster growth and an improved income distribution in the long run.

In the late 1930s and early 1940s Chile's foreign trade become

1/ That was the peak value year, followed by the 1982-1984 macrocrisis and new structural adjustment policies.

2/ Sebastián Edwards and Alejandra Cox, "Monetarism and Liberalization: The Chilean Experiment", Ballinger Publishing Co. (Cambridge, USA, 1987)

increasingly distorted through the imposition of tariffs, import quotas, and all sorts of regulations and controls. With time, however, the tariff structure more and more reflected benefits obtained by different pressure groups. By the late 1960s high and variable tariffs had become a permanent feature of the Chilean economy.

Chile's protective structure had become one of the most distortive in developing countries. Chile's long tradition of trade restrictions generated a number of negative effects, including a high degree of inefficiency in the manufacturing sector, and stagnation of noncopper exports 1/

By year 1973 import tariffs averaged 105 percent and were highly dispersed, with some goods subject to nominal tariffs of more than 700 percent, and, others fully exempted from import duties (usually for inputs with no local producers). In addition to tariffs, a battery of quantitative restrictions were applied, including outright import prohibition and prior import deposits of up to 10,000 percent. In early 1974 the first set of trade liberalization measures was taken: the maximum tariff was reduced from 700 percent to 220 percent, and those duties between 50 percent and 220 percent were reduced by ten percentage points. This first run of tariff reduction had little effect on relative prices and foreign competition, since the great majority of these duties were redundant. In 1975 (the year of VAT) after traditional rounds of tariff reductions, the goverment announced that by early 1978 nominal tariffs would range between 25 percent and 35 percent. In 1976, after all quantitative restriction had been abolished, the trade reform goals were revised, and the aim of achieving a uniform 10% import tariff was implicity set.

1/ Here we find another empirical proof of our assertion b) in section 1: the inefficiency of tariff-tailoring of foreign trade.

Through this process, by June 1976 the average tariff on imports had declined to 33%, having been in the order of 90% in 1974 and of 52% in 1975. Also, by June 1979, year when the trade reform came to an end, all imports items - except automobiles - had a nominal import tariff of nearly 10 percent; this was significantly below the average tariff rate in the vast majority of LDC'S. At present, the country is ruled by a virtually uniform 15% tariff rate.

The liberalization of international trade generated substantial changes in domestic relative prices that, together with changes in the real exchange rate, greatly affected the ability of the Chilean economy to compete internationally. While as a consequence of the trade reform the manufacturing sector as a whole experienced reduction of its domestic relative prices, the agriculture, forestry, and fishing sectors were subject to an increase in their relative prices.

At this point it is worth going back to our main subject, to try to establish major links and feedbacks between VAT reform and the foreign trade liberalization effort.

Two main links shall be analyzed:

(a) the conceptual economic impacts that such liberalization processes have over expected net tax resources (tariff revenues as a whole);
(b) the empirical results arising from the new import-base in terms of VAT revenues.

It shall be seen that on both grounds, there can be ground for optimism in evaluating this package of policies, for the case of middle-income developing countries such as Chile.

A series of empirical studies done in the past by experts from the Fiscal Affairs Department of the International Monetary Fund have shown that several developing countries belonging to the sample of low-to-medium income per capita (specially African LDC's) have traditionally relied on foreign-trade taxes (custom duties and export taxes) as a major determinant of their fiscal revenues 1/. Average figures for these countries show that not less than 15% of total central government revenues are derived

1/ Among other papers see for example Z. Farhadian-Lorie & M. Katz, "Fiscal Dimensions of Trade Policy", I.M.F. Working Paper (Wash. D.C., May 1988)

from various taxes levied on international trade. The comparative easiness of such tax-handles has been mentioned as an explanations factor.

Being this as it is, it is also the case that most of the developing countries (both poor and middle-income ones) may have access today to some other domestic and foreign trade taxation strategies within a restricted choice range, which may be able to generate some economic efficiency gains while securing - at the very least - equivalent global tax resources for the governments.

Even if our belief on this matter is clearly set for expecting revenue-neutral or revenue enhancing results, we do recognize that several aspects of the reforms required in the specific area of foreign trade taxation et al (lowering average and modal nominal tariffs, liberalizing the foreign trade regime, devaluing the local currency, etc.), can be demanding and difficult in terms of the political economy of such reforms. It is obvious that strong domestic lobbies will try to resist any significative policy effort for reducing custom duties and opening up the economy to international competition.

There is a not small list of cases in the LDC world, where the point to which they have - by now - arrived in the level and structure of effective protection across major sectors of their economies is such, that there is there an a-priori clear analytical bias for expecting good results out of comprehensive foreign trade reform packages. These would increase both: the absolute amount of taxation to be collected, and the responsiveness of the overall (performed) indirect tax system to the dynamics of growth in G.D.P. and foreign-trade.

In a few words, these are the growing developing countries where the advanced stage of import-substitution shows a de facto contradiction with respect to results in two goals: accelarating further domestic industrialization efforts via increased import-substitution, and, the goal of securing more fiscal revenues and greater responsiveness from the custom duties base. To put it simply, their stage of excessive effective protection, has re-directed the transfer of economic surplus: that which originally went from domestic consumers to the government by way of tariffs on imports. At their advanced stage, most of this relevant surplus has ended up in the hands of domestic producing firms and only very little has been left to be shared by government in terms of tariff revenues effectively collected. The exaggerated

degree of protection has "dried up" the pool of custom duty revenues.

The interesting policy-issue arising, is that in a new foreign-trade strategy, where imports are liberalized and tariffs are reduced and re-organized in a more rational and convenient way, it may be feasible that overall net tax revenues end up increasing both in absolute and relative (to GDP) terms. In the particular case where simultaneously, efficient VAT reform has been introduced, it is probable that the fiscal revenue responsiveness of these shifts will become of greater magnitude and perhaps also of greater durability.

Any analytical economic model will show that for those goods where the original tariff rates are just "prohibitive", the effect of lowering the custom duty will necessarily increase tariff revenues, since these were non-existent at the start. That effect is independent of the absolute value of the price-elasticity of demand for imports, a variable which does affect the magnitude of the increases in these and in other cases.

In more general terms, the fiscal revenue effects of a tariff reform operate as a function of 5 main effects generated: (i) the first-order impact of changing the rate of tariff itself; (ii) the direct impact that the tariff change produces over domestic prices for relevant goods, and of these on domestic quantities demanded (a move along the demand curve for the good); (iii) the net price-induced (including the changes via shifts in effective protection) over domestic supply; (iv) the relevant cross-effects in demands, generated by the shift in relative prices between complement and substitute goods; (v) the induced impacts generated on the supply-and-uses sides for tradable inputs and intermediate goods 1/.

Using a general equilibrium framework for the chilean case we distinguished between 4 sectors (tradable consumption goods, tradable final investment goods, tradable intermediate goods, and non-tradable goods of final and intermediate use), we have

1/ For these effects and the general equilibrium simulations for the Chilean case see E. Aninat "Una Agenda de Política Fiscal Para Países Semi Industrializados de Latino América", CEPAL (Stgo., Chile, Agosto 1979)

elsewhere done parametric simulations for judging the tax revenue impacts of lowering the average tariff rate from 60% to 30% and eliminating the original dispersion existing in the tariff system. That exercise, explained in detail in a separate paper, resulted in a modelistic expected gain in indirect tax resources for government: the gain estimated (then) accrued to the equivalent of + 1.4% of the original (pre reform) value of G.N.P. A significant change by most tax-policy standards!

Having discussed the overall tariff revenue enhancing results from a conceptual point of view, it is now convenient to focus again in the performance of VAT, as correlated to the reform in the imports regime in Chile. The next and final questions are: how have VAT revenues from the imports base specifically performed during the tariff reform period followed by Chile? Was the empirical result in fiscal revenues there as powerful as the magnitudes suggested by the modelistic simulation for tariff revenues?.

Given that VAT strikes cif imports values once affected by the tariff factor (1+T), it would be expected that VAT revenues arising from the imports base, should have also responded positively and significatively during the foreign trade liberalization period (1977-1981) on average.

Regarding this issue, we performed a special analytical exercise in order to judge the effective or empirical responsiveness that VAT levied on the imports base has had in Chile.

The standard used was our own independently estimated series for potential VAT collections from this base.

A simulation exercise was conducted using Customs House data and consisted of applying the general VAT rate to disaggregate import flows, and then comparing the estimated potential collections with the actual tax collections reported by the IRS for this class of tax revenue, year by year.

The results of simulating VAT revenues from imports appear in the last two columns of the following time series:

YEAR	CIF IMPORTS (mUS$)	EXCHANGE RATE ($/US$)	CIF IMPORTS (mCH1$)	IMPORT DUTIES (m$)	POTENTIAL COLLECTION (m$)	ACTUAL COLLECTION (m$)
1975	1.078	4.910	8.386	1.041	1.885	0.264
1976	1.655	13.050	21.598	2.916	4.903	2.026
1977	2.417	21.510	52.062	4.795	11.771	7.195
1978	4.708	37.250	175.373	11.252	37.325	30.867
1979	3.243	31.670	102.006	8.699	22.481	15.482
1980	6.145	37.000	239.655	14.918	50.915	43.209
1981	7.318	39.000	285.402	21.366	61.354	55.431
1982	4.093	50.710	208.375	13.119	44.299	39.625
1983	3.160	78.790	248.976	29.648	55.725	51.716
1984	3.739	78.480	368.217	45.645	81.722	77.999

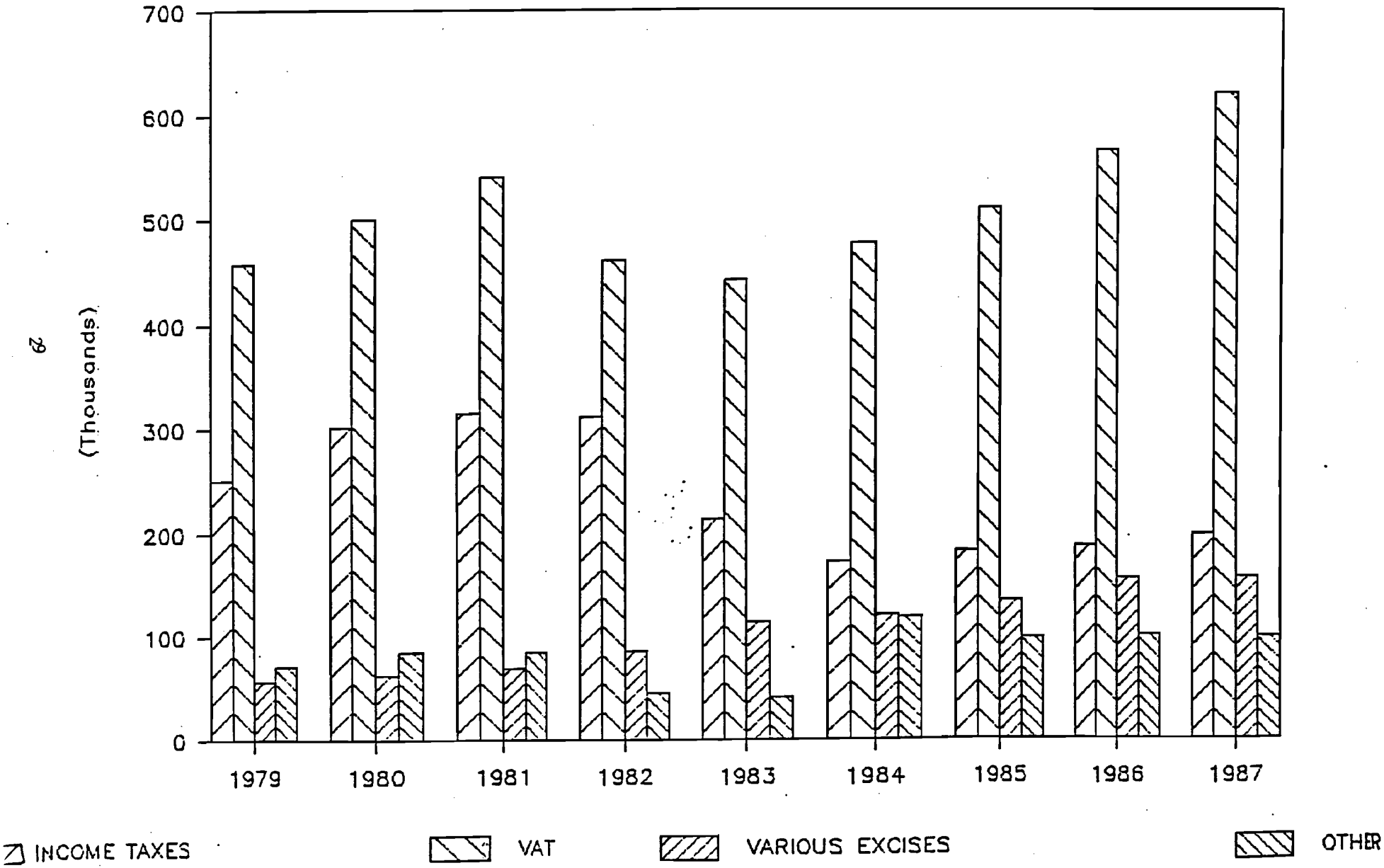
On a trend basis, it appears that the gap between potential and actual tax collection is not significant. With regard to the revenue objection, VAT has performed good in this particular area as well.

In sum, we reach a very positive conclusion about the conceptual and empirical correlacions established between the VAT reform and the liberalization trade reforms.

CHART 2.1

TIME TREND FISCAL REVENUES (MAJOR TAX)

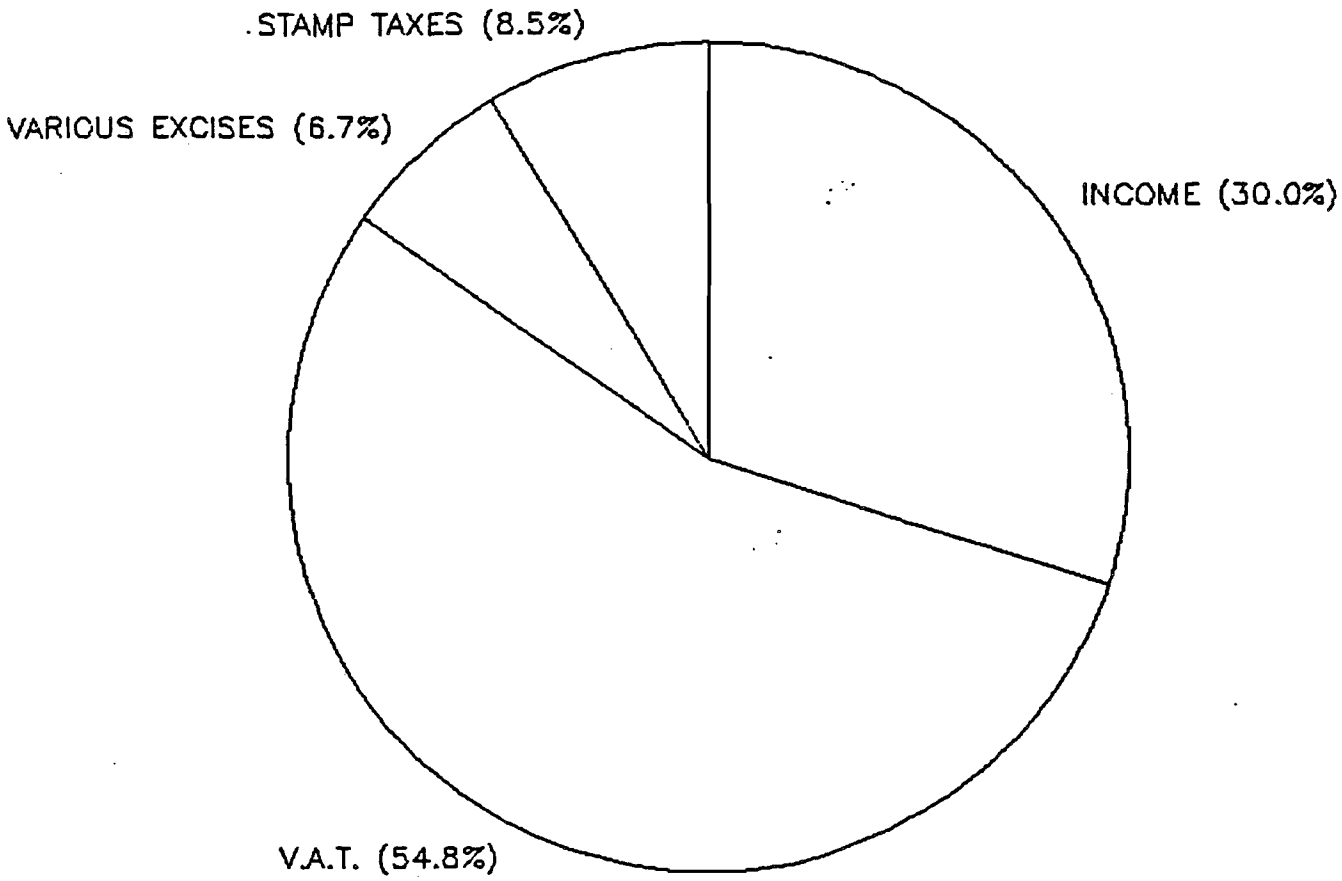
IN MILLIONS CHILEAN PESOS (DEC.1988)



Note: excludes fiscal revenues from tariffs on imports.

CHART 2.2

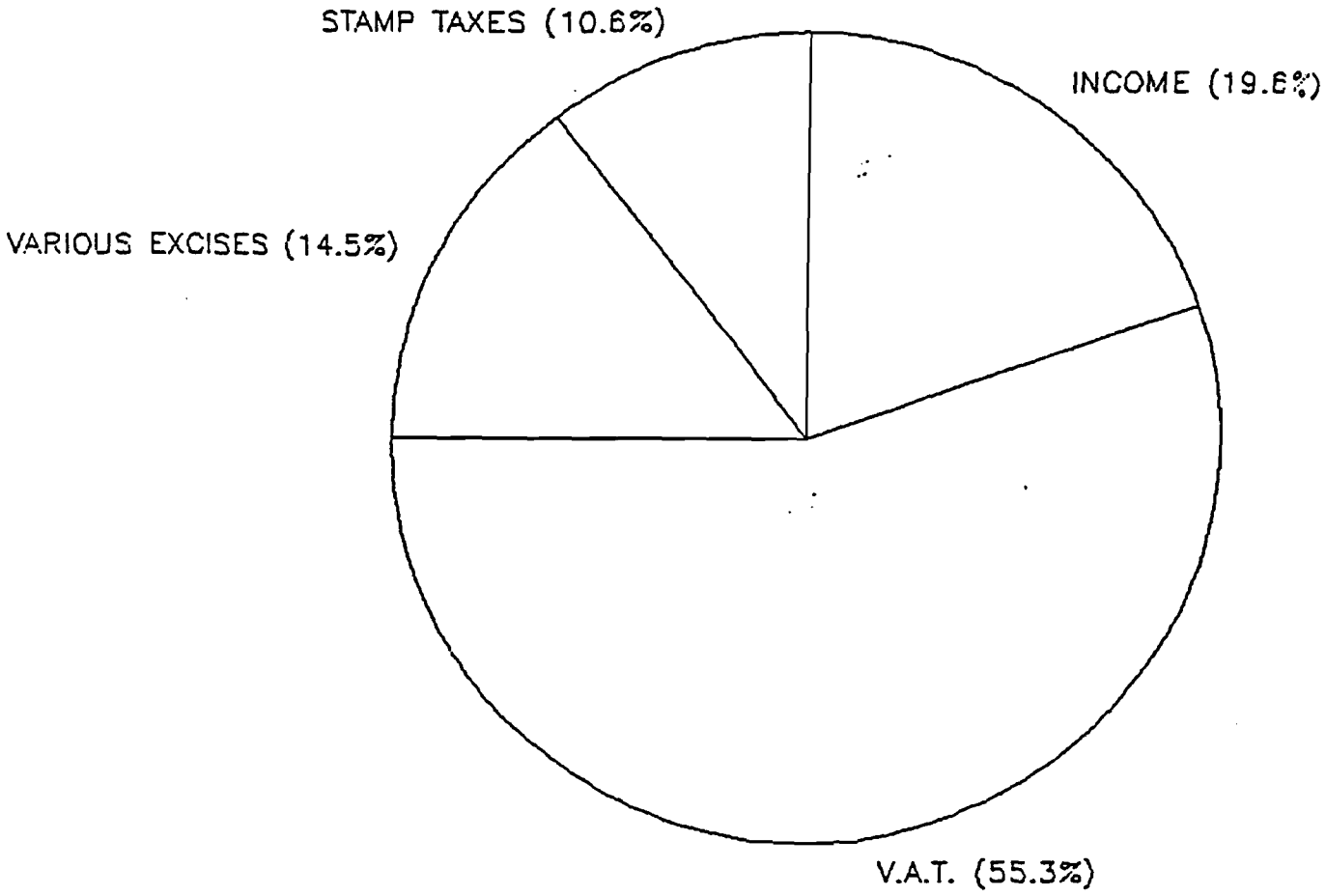
COMPOSITION OF TAX REVENUES 1979



Note: excludes fiscal revenues fro[illegible]ffs on imports.

CHART 2.3

COMPOSITION OF TAX REVENUES 1985

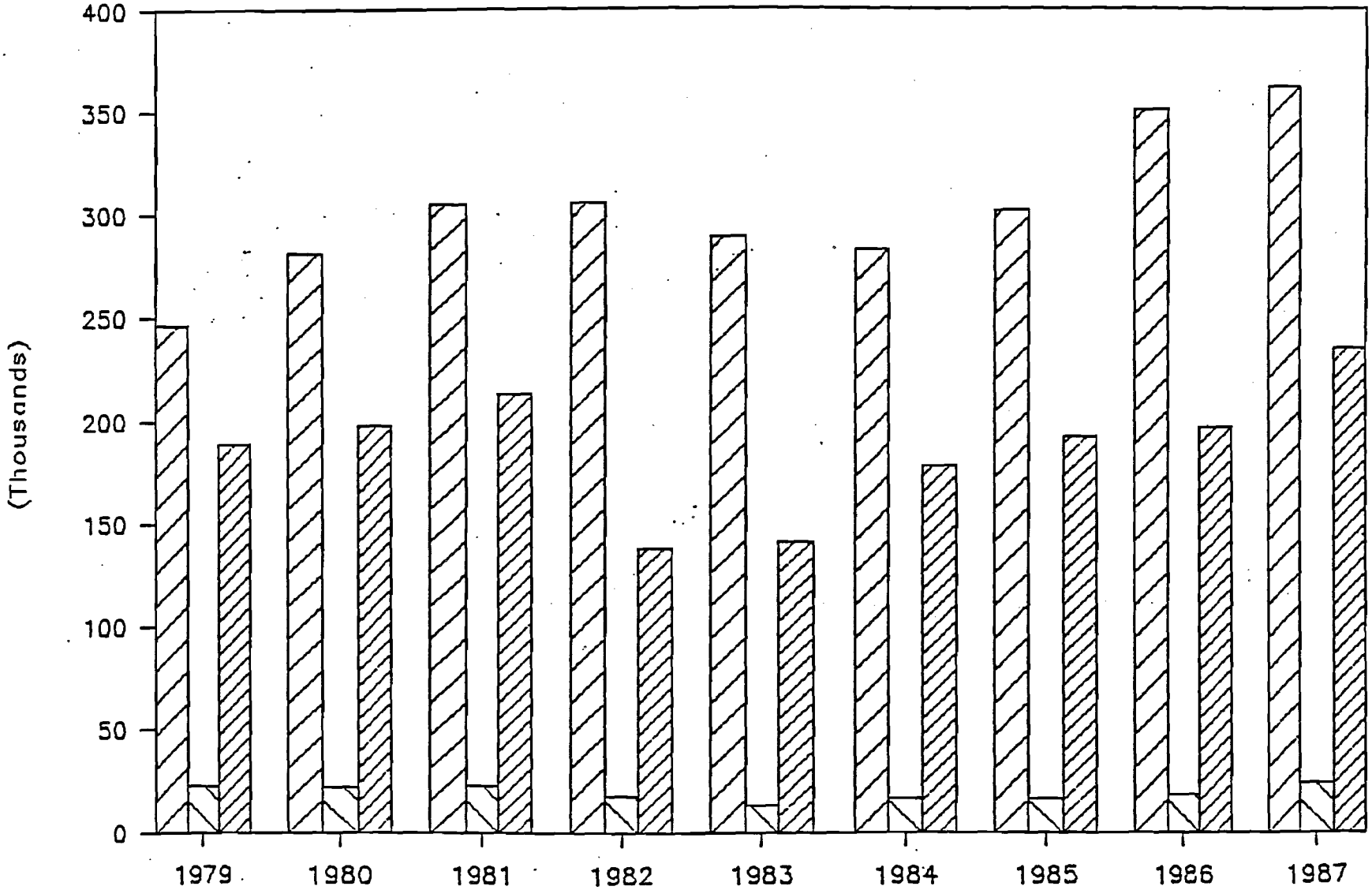


Note: excludes fiscal revenues from tariff on imports.

CHART 2.4

TIME TREND TAX REVENUES (3 VAT BASIS)

IN MILLIONS CHILEAN PESOS DEC.1988



GENERAL RATE

VAT SPECIAL RATE

VAT IMPORTS

Section 3 The Comprehensive Income Tax Reform: Chilean Reforms of 1974 and 1984

In this section we analyze the main features of the comprehensive reforms Chile implemented in its Income Tax laws in years 1974 and 1984.

The process consisted in a more or less complete restructuring in the base, rates and tax treatment applied to different income sources, with a series of special measures involving the taxation of capital incomes. On the whole, the trend was for an integration of corporate income taxes and personal income taxes, leading at the end of the process described to the establishment of a gross proxy for progressive personal expenditures tax. The move under focus also involved a set of incentives for personal savings and corporate investment plans as we shall see.

Although the period 1974-1984 was rich in tax legislation and in the accumulation of significative changes in income taxes, we have chosen to concentrate on the set of economic issues relevant to the tax treatment of capital incomes. Special interest is placed on topics such as the integration of dividends-taxation, double taxation problems and horizontal equity aspects.

We start by providing a brief account of the historical background of income tax laws in Chile.

A. Brief Historical Background

The first income tax law was passed in Chile in 1924. Six income categories were defined, all of them taxed at proportional rates. After 1925, the direct taxation was subject to several changes. The scope and opportunity of those changes responded, by and large, tothe contemporaneous need of fiscal revenues. However, they did not significantly alter the basic structure of the income tax with the exception of the introduction of progressive rates applied to the net income of both firms and individuals.

From 1964, a cycle of reforms, every ten years, of direct taxation is carried on. These reforms have pursued, in different degrees, economic objectives as well as administrative ones.

With respect to the former, the priorities have been given to the promotion of savings and investment plus the development of the domestic capital market, the neutralization of economic distortions created by formerly unindexed tax system, and, the search for improving the resource allocation by relucing tax burdens, specially on capital income, and the elimination of differentiated tax regimes (i.e. of tax franchises and sector exemption).

For the purposes of the analysis that follows, it is important to consider that the last two comprehensive tax reforms - 1975 and 1984 - have been implemented under critical macroeconomic conditions essentially characterized by severe recession, low aggregate investment and domestic savings rates and excessive indebtedness. Neverheless, such reforms have been in the aggregate and in dynamic terms " revenue-neutral", since the annual average growth rate of real revenues from direct taxes has remained near 4 percent during 1970-1987 1/

However, the share of these taxes on total tax revenues has decreased from 32.3% in 1975 to just 19.4% in 1986. It can be explained, to a great degree, by the sizable increases in VAT collections. Since the Chilean VAT system (as examined) does not concede tax relief to the consumption goods expended by low-income groups the last result would show that the recent trends of the overall tax system, as a whole, have sacrified vertical equity goals in favor of economic efficiency considerations.

1/ Direct taxes in our definition include both income and wealth taxes excluding only the special taxation applied to the sales and profits of copper companies (Gran Minería).

B. The Evolution of Capital Income Taxation

The Income Tax Reforms define three stages in the evolving process experienced by direct taxes in the last 25 years in Chile.

The first stage, that goes from 1964 to 1974, can be recognized as the period of a modified "classical system of taxation" applied to the accrual annual income base.

This period did not involve practically any tax integration and thus considered firms and shareholders as totally separate entities for tax purposes.

In the second stage during 1975-1984, the income tax was partially integrated since tax credits were given to shareholders by the taxes paid or withheld at the firm's level.

Finally, in the third stage, post 1984 there is in place an hybrid and fully-integrated scheme of direct taxation, combining features of both an income tax and an expenditure tax. It essentially, taxes distributed profits but allowing them an important incentive to the reinvestment of earnings via an unlimited tax deferral.

This process of adjustment in the tax scheme and modernization of the system of direct taxation, emphasizing the analysis of its induced effects on equity, and efficiency, constitutes the central theme of what follows.

C. The Classical System: 1964-1974 1/

From 1964 to 1974, the structure of direct taxation was basically composed by progressive taxes on the income of productive factors, a net worth tax, a tax on intragenerational wealth transfers, and proportional taxes on realized long-term capital gains. It also included a property tax and a tax on the income from chilean sources earned by non-residents.

1/ In this context, a "classical system of direct taxation" is one under which there is no tax integration of corporate and individual taxes.

The total tax nominal burden reached in that period, an annual average of 24.6% of GDP 1/ The corresponding net tax burden imposed by direct taxation was about 4.6% of GDP, of which 3.9% was imputable to income taxes and the rest to various taxes on net wealth 2/

With respect to taxation on capital income, a modified classical system was applied from 1964 onwards. The schedular tax on the firm's accrued income was proportional and differentiated, while shareholders and partners paid a progressive tax on their own global income (the progressive Personal Income Tax).

Such a system essentially implied a double-taxation of dividends since shareholders did not receive any tax credit for the taxes paid by the firm. Nevertheless, an attempt of tax integration was practiced conceding tax deductions to them, applicable under the progressive personal income tax, for the corporate taxes. That tended to reduce significantly the double taxation of dividends, specially for those shareholders whose income was taxed at a relatively high marginal rate. By comparing effective and statutory marginal rates, it can be concluded that this treatment implied overtaxation of relatively low-income shareholders whereas it reduced the burden of richer ones.

For instance, it can be seen, from Table (at the end of the section), that the group of shareholders subject to a 30% statutory rate according to the Personal Income Tax was overtaxed in 46.7%; while a 60% personal-rate shareholder reduced his net tax burden in about 11.7%. Thus this resulted in the violation of the vertical equity and horizontal equity principles and was generated by the double taxation of dividends and the different tax value of the deductions conceded at the personal level. A violation of horizontal equity was also imbedded in the system since the total burden borne by capital income depended also, in practice on the economic sector in which the investment was carried out. The intrasectoral income tax treatment was certainly non-uniform until 1975.

1/ This figures includes direct and indirect taxes and social security contributions.

2/ It is computed excluding tax refunds from total annual gross collections.

Furthermore, the tax system ruling 1964-1974 induced economic distortions. Firstly, firms had a tax incentive to retain earnings.

This was an obstacle for the development and maturity of the domestic capital market and savings were to some extent allocated into the financing of investment projects rendering marginally lower shadow rates of return. Retained earnings could be reinvested and later distributed as bonus-shares or by increasing the value of the existing stock avoiding, through this option, the high effective marginal rates nominally affecting dividends. This loophole principally benefited high-income shareholders since they could "substitute" the progressive income tax, by a flat 20%, or 8% tax, on realized capital gains.

Secondly the differentiated tax rates applied to the income of non-financial and financial corporations and the total tax exemption granted to public enterprises, could have also produced some economic distorsions, and rendered third-best or worse type of allocation of resources.

On the other hand, the tax rate on the income of partnerships and proprietorships was 20% and the main difference between them and shareholders was that the latter could scape personal or dividend taxation by keeping profits at the corporation level, and taking advantage of tax deferral or of a reduced and imperfect capital gains tax.1/ Thus partners were taxed on their business' accrued annual income according with their shares in the partnership's equity or profits. It implied that all of the income earned by a partnership in a given year was in a way taxed twice: at the business level by the schedular tax on capital income, and, at the personal level by the global progressive personal tax. There was no posibility of deferral of the partners' personal taxes, and it normally would have discouraged savings and the equity financing of the partnership's capital investments. Also, that differential tax treatment generated equity distorsions, and produced a tax-induced preference for the corporate form of doing business 2/

1/ Even though this tax treatment was convenient from a tax administration and tax control point of view, it was dubious and uncertain from the perspective of development of entrepreneurial organization, in an LDC such as Chile.

2/ It is worth noting that during 1974-1979, the regime of taxation of capital gains was extremely imperfect in Chile.

Thirdly, the tax system mainly promoted debt-financed investments by granting full deduction of nominal interest payments. It was specially relevant for those industries regarded as " vital" for Chile's economic development. Which in addition enjoyed the franchise of accelerated depreciation. The preference for debt, stronger under inflationary conditions in a context of partial indexation usually tended to increase the cost of capital on account of the higher risk premiums that must be paid for. The deteriorations of the capital structure jeopardizes their solvency (and that of other firms). Firms may become more vulnerable to a downturn in the business-cycle, which normally is accompanied by a fall in the return on total capital, becoming near or below the interest rate that must be paid to holders of debt.

Nevertheless, that possibility was reduced by the scheme of partial indexation of the firm's net worth which was in place during those years. It mainly constituted a disincentive for heavy reliance on debt financing, and, an indirect way of placing some restrictions on interest deductibility. However, that scheme had the disadvantage of being nonneutral since it only allowed for a partial correction of the distortionary effects caused by inflation on the firm's financial statements and taxable incomes and favored fixed assets' investments against: inventories, financial and intangible assets.

In addition, the progressive tax on net worth tended to offset the restrictions for debt financing indirectly imposed by the indexation scheme. This levy also intended to promote the taxing of those incomes that had evaded or eluded the income tax by intending to complement it, given its mechanisms.

In sum, the main problems faced at the end of 1974, by the tax system were: first, the tax base was heterogeneous in terms of taxing the same kinds of incomes. Second, there were different tax rates applicable for the same economic base. Third, the system lacked effective mechanisms to fully correct (for tax purposes) the induced effects generated by inflation. And fourth, there was a permanent trend for a violation of general norms and principles, due to the wide variety of preferential tax treatment granted to specific sectors and industries 1/. All of this negatively affected horizontal equity and the administrative viability of the tax system as a whole.

To some extent, it was also the result of a piecemeal tax policy approach implemented in a baroque institutional context in which the different business groups had the possibility, at the legislative body, to pressure too heavily for their own particular interest.

In particular , the political economy during those past decades was conducive to continuous lobbying from groups of business associated to the very powerfull industrialists association , which pressured for protective tariffs, favored treatment in corporate taxes , tax franchises and , in general , various classes of differentiated tax regimes. It was unfortunate that the piecemeal approach to tax policy in fashion then , did invite specially those kinds of pressures in the system.

/1. Laws regulating sectoral, regional and per goods tax franchises added several hundred pages each. These were almost all repealed during 1975-79. In any case there are still three major preferential tax treatments subsisting: the special cases of agriculture, small mining activities and the trucking sector.

D. The Partially Integrated Direct Tax System: 1974-1984

At the end of 1974, a comprehensive tax reform involving both direct and indirect taxes was carried out by the government. The changes introduced by this reform, in the area of capital income taxation were mainly intended to establish a better tax environment for investment by the private sector, contribute to the development of the domestic capital market and overcome the inefficiencies and inequities inbedded by the in the tax system. The changes included:

(a) The introduction of a partial tax integration scheme of corporate and personal income taxes through the imposition of a 40 percent withholding tax-known as the "Additional Rate Tax", applicable to accrued income earned by private corporations and public enterprises;

(b) The elimination of both the capital gains tax and the net worth tax. Those were considered by the new policymakers, as inefficient, complex and widely evaded 1/.

(c) The adoption of a comprehensive system of tax indexation of the value of all real assets and of all real liabilities.

With respect to tax integration of personal and corporate taxes, its introduction had the objective, in the first place, of eliminating the preferential treatment given to retained earnings, thus intending to promote the growth of the domestic capital investment. That also was directed to reallocate these domestic savings, towards the financing of those investment projects of relatively higher returns, aiding to maximize the rate of economic growth.

Secondly, it attempted to improve tax equity by taxing shareholders and partners on the same basis (accrued income) eliminating the benefit of tax-deferral of personal income taxes conceded to the former on the non-distributed portion of corporate profits.

1/ Jorge Cauas, "El Rol de la Política Tributaria en el Desarrollo Nacional", Universidad de Chile, La Reforma Tributaria: Sus Efectos Económicos (Santiago, 1976)

However, these objectives would not, in practice, be materialized in the desired degree. The Reform reduced the after-tax relative cost of debt financing by both taxing retained earnings and allowing full deductibility of interest payments. It inevitably induced more indebtedness at the margin. Paradoxically, this tax shift came into full effect in a period characterized by extremely high real interest rates contributing to the creation of severe macroeconomic imbalances at the end of 1982.

On the other hand, the scheme of partial tax integration did not necessarily improve tax equity standards either. The overtaxation borne, before the 1975 Tax Reform, by lower income shareholders increased 53.7% with respect to their statutory marginal rate. At the same time, high income shareholders reduced their effective tax burden in direct proportion to the level of their own incomes (see Tables). This was essentially due to the fact that the schedular tax on capital income was not integrated, and there was no tax-refund for the difference between the withholding tax rate and the personal-income-tax relevant marginal rate.

The 1982 macroeconomic crisis faced by the Chilean economy, was basically characterized by a sharp decline of domestic savings and investments, and by a significative amount of domestic and foreign indebtedness. Those critical conditions demanded the implementation of urgent and profound macro-stabilization policies, as well as structural adjustment policies. In this context, radical changes were applied to the structure of the tax system.

E. The Fully-Integrated Income Tax Period: 1984 onwards

The 1984 Income Tax Reform essentially replaced a partially-integrated accrual-based system of corporate and individual income taxation, for a proxy of a progressive personal expenditures tax. The main objective of this structural adjustment in tax policies consisted, apart from intending to reduce the debt equity ratio of a heavily indebted private sector, in fostering the recovery of the growth rate of the economy by increasing the pace of real investment financed with retained earnings in particular, and fostering domestic private savings in general 1/

Specifically the reform implies that only the 10% shareholder-tax on capital income is applied to the firm's accrued income if it is reinvested on business 2/ since the 40% legal withholding-tax was gradually reduced, and then totally eliminated from 1986 onwards. Thus, shareholders, partners and owners now pay personal taxes only in the year in which these profits (or formal accountable accumulated earnings) are distributed or withdrawn from their respective business. It means, in other words, that capital income is not taxed when it is earned, it is only taxed when expended. Then, by taking advantage of the tax deferral incentive, profits may become in present value terms, a virtually tax-exempt income, depending on the effective time span that capital-income earners are willing to keep those profits at the corporate sector (as a whole) and on the real return these reinvested profits can sequentially earn from new corporate investments they are allocated to.

1/ It implies the reduction of the after tax relative cost of retained earnings as a source of financing and in this sense resets the preferential treatment conceded to this source under the "classical system".

2/ This tax on accrued income was eliminated very recently thus the firm's net earnings are taxed only when distributed or withdrawn by partners or shareholders.

The benefit received from deferral of the income tax is equal to the difference between the statutory progressive income tax rate on accrued income and the effective rate resulting from using distributed income as the base. The higher the investor's personal tax rate, the bigger the gap between these rates and the maximum benefit that accrues to top-income-rate shareholders ceteris paribus. Thus, tax deferral incentives may to a great extent conflict with vertical and horizontal equity, objectives, specially when considering that wage-earners, subject to full tax withholding cannot practically take advantage at a comparable degree, of the few and selective financial savings deductions allowed under the wages tax. 1/

Also the integration of the schedular tax on capital income and the personal income tax maintains some inequity favoring high-income shareholders, even though it now eliminated the overtaxation borne by lower income shareholders that prevailed in the former scheme (see Table Nº4.1)

Perhaps, the larger tax incentives granted to capital incomes, is a misunderstanded policymakers' reading about the trade offs between economic growth and equity faced.

Nevertheless in the case of a special scenario and under the strong assumption of a full and more perfect capital mobility in LDCs open economies (which after all most structural reform policies pursue), the preferential treatment given to capital income by the 1984 Reforms could have reduced the final tax burdens falling on workers. Unfortunately, that seems to be an implausible empirical model and results to reach, in modern developing countries.

In addition to the issues commented, ocassional and long-term realized capital gains earned in the sales of corporate shares are affected by a 10% unique-tax. This preferential treatment may induce, at the margin, some rigidity in resource allocation by creating again a "lock-in effect", partially inducing investors to hold these assets somewhat longer than wanted by society's overall economic priorities.

1/ Wage earners, as individuals at large have a limited list of tax preferential financial investment options; plus a cap on tax-deferral equivalent to 20% of their taxable income. All of this operative at the Individual Income Tax only.

At the individual level, the fast reforms have importantly contributed to the process of reducing direct tax rates, and widenning brackets and exemption levels. The evolution in fifteen years has been impressive.

For instance, the basic exemption was risen at an average nominal rate of 11.3% per year going from US$ 648 in 1973 to about US$ 3.212 in 1987. The top marginal rate went down 10 points in the same period, and has involved an increase in the amount of income subject to it (coverage change). Overtime, these changes have had significative affects mainly in terms of reducing the overall burden of income taxes to only 3.1% of GDP,in 1987, and improving (in the efficiency sense) many of the incentives for savings and investment.

F. The evolution of Wage Income Taxation

From 1972, labor income has been taxed by a progressive tax on wages which operates on a monthly withholding basis.

Before the 1975 Tax Reform, the main problem of it was that its rate structure was steeper than that of the global personal income tax. In fact, the top marginal rate of the wages tax was by then 65% and only 60% for the global tax.

The high effective rates paid under the wage tax constituted a disincentive to the supply of work being, in addition perceived by workers as both inequitable and unfair. Secondly, these were too many and narrow income brackets in it, producing some bracket-creep, since the tax indexing unit was only partially and occasionally adjusted to the prevalent inflation rate. Finally, the basic exemption (or Zero Bracket Amount) was a very minimum amount; which unnecessarily complicated the administration of the tax system and increased heavily the costs of tax compliance, without clear tax revenue benefits.

Later, the equalization of the rate structure of both the wages tax and the progressive income tax, was the most significant change introduced by the 1975 Reform in the area of labor taxes. It corrected some of the distortions commented on before. Furthermore, income brackets were widenned and marginal tax rates gradually reduced. This process of actions towards tax simplification was kept up to 1983, verifying in that date a

noticeable increase in the value of the exempted amount, whose value rose to the equivalent of US$ 364.4 monthly.

The 1984 Tax Reform brought about, in the first place, a significant reduction in the global tax burden borne by labor income with the top marginal tax rate reaching a value of only 50% .

Secondly, the nominal progressivity imbedded in the preceding structure has been gradually improved.

On the other hand, the strateggy of "popular capitalism" 1/ applied in the sale of public enterprises, has also rendered to workers in selected formal areas, the possibility of buying limited tittles of shares enjoying tax benefits such as the exclusion from the tax base of preferential dividends.

As it is well known, tax deductions are normally not progressive in any case, since their tax value are a direct function of the marginal tax rate affecting the individual's income. This point introduces a second-order criticism oriented to the particular way the tax incentive was granted in the "popular capitalism" policies mentioned above.

On the issue of progressivity, we have more to say in the last section, which deals with the general strategic issues of C.T.R. design.

1/ Popular capitalism is understood as special legislation creating a new series of shares for the largest government intervened private banks in 1985. This shares were promoted and placed massively by recourse in part, of special tax franchises on the dividends plus other price-discount advantages.

TABLE 3
TAX STRUCTURE FOR WAGES TAX
in 1983 and 1987

1983 a/			1987 b/		
US$	US$	%	US$	US$	%
0	364,4	0	0	297,5	0
364,41	911,0	8	297,51	892,4	5
911,01	1.457,7	13	892,41	1.487,4	10
1.457,71	2.004,3	18	1.487,41	2.082,4	15
2.004,31	2.550,9	28	2.082,41	2.677,4	25
2.550,91	3.097,6	38	2.677,41	3.569,8	35
3.097,61	3.644,2	48	3.569,81	4.462,3	45
3.644,21	ABOVE	58	4.462,31	ABOVE	50

a/ Tipo de cambio promedio (mercado bancario) = 87,07
Average Exchange Rate used for convensions = 87,07 pesos per dollar

b/ Tipo de cambio promedio (mercado bancario) = 235,34
Average Exchange Rate used for convensions = 235,34 pesos per dollar

SOURCE: Ministerio de Hacienda, Calculo de Ingresos Generales de la Nación, Banco Central de Chile, Boletin Mensual

LE 3.1

STRUCTURE OF THE DIRECT TAXATION OVER TIME

1973		1976		1988	
TAXES	NOMINAL	TAXES	NOMINAL RATES	TAXES	NOMINAL RATES
I. INCOME TAXES		I.INCONE TAXES	10%	I.INCOME	
1. FIRST CATEGORY		1.FIRST CATEGORY	40%	1.FIRST CATEGORY	10
- General rate	17	2.ADDITIONAL RATE ON CHILEAN CORPORATION	Progressive rates between 0 and 60	2.SECOND CATEGORY -WAGES	Progressive rates between 0 and 50
- Non financial Corporation	35	3.SECOND CATEGORY			
- Financial Corporations and Insurance Companies	40	- WAGES PROFESIONALS (IND)		3.GLOBAL ON ANNUAL EARNINGS OF RESIDENTS	Progresive rates between 0 and 50
- Owner's salary	5.5	4.GLOBAL ON ANNUAL EARNING OF RESIDENTS	Progressive rates between 0 and 60	4.ADDITIONAL ON NON RESIDENTS INCOME FROM CHILEAN SOURCES	20 and 35
2.SECOND CATEGORY	Progresives rates between 0% and 65%	5.ADDITIONAL ON NON RESIDENTS INCOME FROM CHILEAN SOURCES	20 and 40	II.TAXES ON WEALTH	
- Wages		6.HOUSING OR PROFITS TAX	5	1. PROPERTY	2
- Professionals (Individual)	7	II.TAXES ON WEALTH		2.INHERITANCE AND STATE	Progressive rates between 2.5 and 25
- Professionals (Partners)	12	1.PROPERTY	2		
- Corporate Directors	30	2.INHERITANCE AND STATE	Progressive rates between 5 and 55		
3.GLOBAL ON ANNUAL NON PRESIDENT INCOME FROM CHILEAN SOURCES	Progresives rates between 0% and 60%				
4.ADDITIONAL ON NON RESIDENTS INCOME FROM CHILEAN SOURCES	40				
5.HOUSING OR PROFITS TAX	7				
6.CAPITAL GAINS	8 OR 20				

II. TAXES ON WEALTH

1.NET WORTH	Progressive
2.PROPERTY	multiple rates
3.INHERITANCE AND STATE	Progressive rate between 5 and 55

TABLE 3.2
DIRECT TAX BURDEN AND THE
INTEGRATION OF THE CORPORATION
AND INDIVIDUAL INCOME TAXES

	CLASSICAL SYSTEM a/ (Up to 1974)		PARTIAL INTEGRATION 1975-1985		FULL INTEGRATION (1986 ON)	
PROFT BEFORE TAXES (US$)		100		100		100
TAXES AT CORPORATE LEVEL						
(2) FIRST CATEGORY		35		10		10
(3) ADITIONAL RATE TAX		-		36		-
TAXES AT SHAREHOLDER LEVEL						
(4) INCOME TAX RATE	30%	30%	30%	60%	30%	60%
(5) DIVIDEND INCOME b/	65	65	54	54	90	90
(6) TAX DEDUCTION	35	35	-	-	-	-
(7) PERSONAL INCOME TAX BASE	30	30	54	54	90	90
(8) PERSONAL INCOME TAX	9	18	0	10.8	18	45
(9) TAX CREDIT	-	-	21.6	21.6	9	9
COMBINED TAX BURDEN						
(10) TOTAL TAX	44.0	53.0	46	56.8	28	55
(11) EFFECTIVE TAX RATE	44.0%	53.0%	46%	56.8%	28%	55%
(12) OVER TAXATION	46.7%	-11.7%	53.3%	-5.3%	-6.7%	-8.3%

a/ These computations are valid only for nonfinancial corporation
b/ It is assumed that all the from's after tax profits are distribute to the individual shareholder

TABLE 3.3
EVOLUTION OF THE TAX STRUCTURE
PROGRESSIVE INDIVIDUAL INCOME TAX a/

1974			1976			1983			1987		
INCOME US$	BRACKET US$	NOMINAL MARGINAL	INCOME US$	BRACKET US$	NOMINAL MARGINAL RATE	INCOME US$	BRACKET US$	NOMINAL MARGINAL RATE	INCOME US$	BRACKET US$	NOMINAL MARGINAL RATE
0	648	0	0	672	0	0	3.212	0	0	3.212	0
648.01	1.620	10	672.01	1.680	10	3.212.01	8.028	8	3.212.01	9.636	5
1.620.01	3.240	15	1.680.01	3.360	15	8.028.01	12.840	13	9.636.01	16.060	10
3.240.01	4.860	20	3.360.01	5.040	20	12.840.01	17.644	18	16.060.01	22.484	15
4.860.01	6.480	30	5.040.01	13.440	40	17.644.01	22.488	28	22.484.01	28.908	25
6.480.01	12.960	40	13.440.01	26.880	50	22.488.01	27.300	38	28.908.01	38.544	35
12,960.01	25.920	50	26.880.01	ABOVE	60	27.300.01	32.124	48	38.544.01	48.180	45
25.920.01	ABOVE					32.124.01	ABOVE	58	48.180.01	ABOVE	50

a/ COMPUTED ON ANNUAL BASIS

SOURCE: SERVICIO DE IMPUESTOS INTERNOS

Section 4 Considerations Regarding the Political Economy of Comprehensive Tax Reforms

In what follows, we will discuss some of the strategy considerations to be included in the discussion of comprehensive tax reform (CTR). Even though we have in mind the Latin American and Chilean experiences of the last 2 decades, some of the lessons arrived at may also be applicable to other areas of the developing world.

The experience of introducing VAT, and the two major restructurings of capital income taxation in Chile (1975-1984), have altered - as commented - in major ways the chilean tax system. On economic efficiency and tax administration and compliance grounds, several of our appreciations of these shifts have been on the positive side. Our overall reading of the rationality embodied in these reforms, and of their expected impacts over the efficiency under which the microeconomic system works in Chile, is favorable on balance.

The issue however is: has the country as a whole, considered these reforms as positive and long-standing? To this specific but crucial question, our answer becomes uncertain.

This is not the place for a detailed specific account of the criticisms that CTRs in Chile have produced in public opinion, in party-commited tax analysts and other centers conforming the political economy stage in society 1/. While some of these are purely "strategic" in nature and are associated to the timing of the reforms (Pinochet's government for 1973-1988), other criticisms are more incisive and powerful in their potential impact over the temptation to change again (and perhaps revert?...) many of these tax policies, some of them being still rather short-lived.

1/ One example chosen among several is Ernesto Edwards, "Reforma Tributaria: Análisis y Alternativas", C.E.D. (Stgo., 1984)

In order to generalize, and move into the more conceptual analytical level, we shall only reproduce here - as an illustration one important criticism levied on one of these CTRs: the regressive effects apparently generated by the replacement of the traditional (piecemeal) Sales Tax by the Value Added Tax in 1975.

We utilize the VAT issue, in the chilean case, mainly to illustrate some relevant strategic issues that most developing countries, worried about income redistribution at the political level, should carefully consider in the design and timing of major tax reforms. It will be clear for the reader, that the context does influence to a considerable degree the "imagery" arising out of VAT introduction 1/.

We will deal with two related issues:

A tracing some of the redistributive effects of Chilean VAT;

B discussing some key political trade-offs for tax policy design in LDCs, and listing considerations conducive to higher stability in CTR policies.

The paper concludes with a claim that more human resources and communication efforts should be devoted in LDCs to a two-fold process of fiscal policy education: nurturing key politicians and their advisers about the cost-effectiveness of traditional piecemeal approaches versus modern integrated and uniform styles of tax policies; feeding tax reform leaders (normally trained economists) on the perceptions about institutional incidence appraisals that politicians get from CTR proposals. Intuitive, empirically backed, considerations show that the social Cost-Benefit results from such dynamic educational cross-fertilizations could prove profitable for developing countries.

1/ The context refers to the very special authoritarian regime, Pinochet's government, which implemented the reform. But to a large extent, on the other hand, the introduction of VAT was a long time desired goal, of various Chilean political administrations of the past.

A. Summary of the Income Redistributive Effects from VAT in the Context of Overall Tax Reform.

Looking at the process of tax reform from a mid-term view-point, there are convincing reasons for stating that the adoption and development of value added taxation was only one change within a complex tax reform package:

(a) The replacement of a traditional, non-integrated and differentiated system of Sales Taxation by a comprehensive, virtually uniform, integrated consumption tax of the Value Added variety;

(b) A simultaneous process of simplification, restructuring, integration, and rate reduction in the most important Direct Taxes of the time (personal income tax, capital incomes tax); where this reduction in tax revenues was compensated by the extra collections from the VAT. The reform of 1984 which intended to adopt a rough form of the personal "expenditures tax", points also in the same direction.

Depending on the population's age structure, income class expenditure habits on the one hand, and on channels of production, wholesale and retail distribution of the relevant goods, these changes in the tax base and structure implied different personal welfare effects for different groups. We concentrate on a comparison of the final effects on relative consumer prices due to the adoption of the VAT, and abstract from any induced changes in factor prices. Comparative results by population groups are assessed in a realistic benchmark case where luxuries are supplied by firms covering multiple stages of processing, non-food normal goods are supplied by vertically integrated firms, and food is produced domestically under competitive conditions.

It is clear that population groups heavily biased towards food consumption in their expenditure outlays lose as a result of changes brought about by the Chilean VAT. Given that most Chilean foodstuffs belong to the category of tradables, it is reasonable to adopt the full "forward shifting" hypothesis for the tax in this case. Different numerical examples worked out for this class of effects show that price hikes of about 10 percent were possible, even if we assume an average evasion rate of 50 percent for VAT in the food producing sectors of the time.

This brings us to another point: the price effects of the tax change depend also on the character of evasion; that is, on the rate of evasion before and after the introduction of the VAT, and on the differentiation of evasion rates by sectors and commodities. To the extent that the evasion rate for the VAT is higher in the agriculture sector, for example, the regressivity of the tax shift is lowered.

Another important factor in such "before and after" incidence exercises is the percentage of value added incorporated to the costs of inputs in each of the various stages of production traversed by different goods. One should recall here that the "two-tier" tax scheme which was in force during and until 1973-74 involved the operation of two separate rates at two distinct stages. The characteristics of production and distribution processes become important for the issue in focus. Thus it is quite possible that in the case of consumer goods produced by non-integrated multi-firms, the relative prices may have actually declined after the introduction of the (multi-stage) VAT.

The above discussion illustrates the problems involved in obtaining a clear-cut solution. There is, however, one clear conclusion: a large number of exempt goods, foodstuffs among others, were incorporated into the VAT base by 1977. It is clear that by then, the poor were largely hurt by these 1/

The last issue, the extreme and early comprehensiveness of the general 20% VAT hitting on a vast scale most or all basic consumption goods (necessities) at an imprecedent rate, has generated significative resistance to the tax change analyzed. The image of "regressivity" of VAT, embodied in many political schemes, has grown out of this characteristic of the new chilean indirect tax system.

There is one other clear effect generated from the tax policy shift which favors capital as a cumulative factor. The previous tax system taxed several transactions involving capital goods. The new VAT system permits firms to recover taxes implicit in their purchases of capital goods, by way of the credit method. However, it must be stated that this was probably not a major shift in the short term, given the large list of tax franchises

1/ True, the rich do also consume those necessities and thus were also hit by the tax reform, but household expenditure surveys show that less than 30% of total consumption expenditures by the upper income class group was spent on these goods.

and of special tax treatments that (old) tax laws provided already to various types of capital goods, plus the lower sales tax established for transactions developed at the producer stages. This effect from the change, would only add partially to the regressivity aspects of chilean VAT.

In any case, the reform meant that the relative price of consumption goods vis a vis capital goods changed significantly. These shifts tended to favor an increase in saving and in investment.1/ However, in an economy where fixed assets are concentrated in terms of ownership, there is a firm basis to believe that this premium on saving was internalized by property owners to a large extent and for a rather long time period. That is, the response of investment in an imperfect capital market such as the chilean one at the time (1975-1985) was very slow. Hence, old fixed assets enjoyed capital gains or quasi-rents for a long period, most of these going largely untaxed until the 1980. (see Section 3 on the issue of capital gains).

Summarizing, tentative conclusions regarding the performance of the VAT in Chile seem to be that while the new system (with the introduction of the VAT a major but not the only change) has generated good results in terms of economic efficiency and the fiscal revenue objectives, a cost has been paid in terms of several of the redistributive effects generated by these measures.

In terms of the lessons learned from the Chilean experience with the VAT, an important one seems is that a support system must exist to mitigate any inequitable effects of the VAT, specially given the importance this source of taxation has reached in the overall revenues of central government.

1/ Note that in the long run, and depending on elasticity values and substitution factors the capital/labor ratio should increase, and could of favor real wage rates relative to the net of tax price of capital-

B. Tax Policies and Political Trade Offs in Less Developed Countries.

The experience of Chile in 1974-1985 as studied, and that of several other Latin American countries (Mexico recently...) teaches us that comprehensive tax reform - undertaken in the context of demanding macroeconomic adjustment process - must consider explicity and timely the complex issues regarding static and dynamic incidence. We believe that as difficult as that may be when designing tax reform, a careful consideration of who gets hit and who and how will benefit, is a significative ingredient in helping to construct far-reaching and dynamic self-sustaining tax policies. On too many occasion the tax reform process has been viewed, by hurried policymakers, in a short-sighted purely efficiency oriented sense.

There is little purpose indeed to have troubled LDC governments embark in very complex and demanding struggles for tax changes, if it is at the same time probable that the subsequent government and/or political wave will exercise tax policy reversals...

Thus, a relevant question-prior to the final design and implementation process of CTR should be addressed: will the tax policy package in preparation end up alienating (against it) major coalitions and relevant opinion leaders?

If the answer is yes, and sometimes even if it weren't, a subsequent question should then be asked by policymakers to their advisers and technicians:
where and how have the tax incidence effects been left loose in the design and/or imperfectly dealt with?

To our surprise, there have been instances where a more coherent and long-run focused CTR design, as compared to those implemented, was feasible; and could have obtained higher political scores without significant looses either in economic efficiency or in tax administration standards.

Tax advisers, and specially economists, should not tend to dismiss easily (or to disguise) the political aftermath generated after C.T.R. has been put to action.

The prior statements have been made not only from a vertical equity point of view arising from incidence considerations, but specially from the desire to secure a greater degree of stability, and sustaintability through time, of the major rules

governing the tax game. In the Latin American context at least, there is a strong case - as a norm - for prefering moderately imperfect but more durable tax rules concerning major direct and indirect taxes, than going for a purist excessively ambitious but short-lived tax package...

After all, economists and tax advisers should be aware - like politicians usually are - that comprehensive tax policy belongs to one of the core areas of classical political decision-making: society's discussion on how and what value of total private purchasing power is set apart for government's use.

In actual policy practice, it has been sometimes surprising to see not a reduced number of high-rank economic advisers on C.T.R. and related fiscal issues, virtually ignoring all-together the political impacts of such reforms and the strategic considerations arising thereof.

At the final stage of our paper, it is useful to go back to some of the basics in C.T.R. planning, and to ask ourselves about the main strategic features we desire in considering future designs. In our view, six main guidelines become truly relevant for the modern developing country case.

First, Comprehensive Tax Reform should only be considered for design and legislative discussion and implementation,if and only if a clear positive answer is given (at the adequate level of government) to four practical questions:

(a) will the general efficiency trend from the tax shift be positive and significative over the medium term?

(b) will the redistributive impacts from the tax changes, if significative, be palatable (and how) for organized society at large now and then?

(c) will the tax reforms be, as a minimum, fiscal revenue neutral in the relevant macroeconomic horizon?

(d) will the tax package be simple enough to comprehend, absorb and comply by the core private sector?

Second, feasible packages of CTR should - as a norm - stay closer to a general standard of tax design or tax structure: reliance on a few broadly comprehensive basis, and utilization of a relatively uniform tax treatment (tax rates and tax mechanics)

across sectors. The ambitious, "optimal taxation illusion" a blended style of planned tax disuniformity present in the so called piecemeal approach should become (hopefully) a tax monster of the past...By this date, too many fiscal administrations have been self-devoured by the never ending trend of retailoring each and every little tax item (bases, rates, franchises), as a function of dynamically changing structural economic conditions affecting Second Best optimality 1/

Third, comprehensive tax reform packages should be capable of being relatively easy to grasp or understand both by the relevant body politic as well as by average taxpayers themselves. Here we refer to the core of the tax policies, and not necessarily to the accounting and/or tax auditing details. If the core ideas or tax policy trends intended by the changes are not adequately understandable by those legislating and by those tax-paying, then most probably CTR will encounter heavy and dangerous transition difficulties in actual practice. Please note very carefully here, that there is practically no way in which tax administration and fiscalization gimmicks will later redress this problem. The tax game is virtually always won or lost at the crucial primary level of direct taxpayer compliance: corporate, transactions, or individual levels.

Fourth, comprehensive tax reform policies should be of such an orientation and design (and consider the relevant expected feedbacks) so as to be as self-reinforcing and self-sustained as possible through time. This issue gives rise to a complex policy problem in practice: should LDCs prefer a comprehensive one-sweep tax-revolution where all major changes are carried about in a brief time span, or, should they go for a sequential well timed ordering of tax shifts in a longer time horizon?

This is one particular policy are a where no general prescriptions exist, since a case by case social Cost-Benefit exercise should be done for defining the optimal time framework. The exercise referred to must necessarily include inputs collected from political opportunity considerations, an aspect which varies notoriously from developing country to developing country. One element among many to explicity consider here though is that

1/ Please note that optimal taxation approaches to taxation in developing countries (moving dynamically), in and of themselves must contemplate frequent adjustments in tax rates, given the implicit elasticities changes through time.

in most cases the temptation for feverish tax legislation arising from an imagery of the "once-in-a-lifetime opportunity" usually generates improvised and very imperfect tax packages.

Fifth, as a rough rule of thumb, it is always interesting, and rewarding in the long run, to examine CTR proposals not only from traditional notions of economic efficiency and redistributive effects, but also from the broader perspective of analyzing how do they contribute (if anything) to the general promotion of competition in the products and factors markets. There are some conceivable tax reform packages which, given their mix and the context of general policies, may not appear as spectacular on static efficiency and distributive grounds. But these may contribute in unexpected significative ways to enhanced competition by firms, products and factors of production. We should note, in passing, that what competition generally does is to affect supply and demand elasticities, thereby changing through time the excess burden and incidence results arising from taxation. It is our educated economic intuition, that given the very imperfect starting positions in various LDCs, an increase in the degree of competition prevailing in the developing world will tend to score positively on the income redistributive effects of such-policies. Foreign trade tariff reforms have been a good example here.

It were posible to continue adding more and more considerations on these strategic issues. The subject is indeed fascinating and prone to further applied research. Let us end the paper by warning scholars, policymakers and tax advisers at large, about the effects of two special "gaps" found in fiscal policy practice. We have in mind again, preferentially the Latin American experiences within the developing world; and we think that these are still unconciously ignored by traditional architects of fiscal policy.

During the sixties, the seventies and part of the nineteen-eighties, many Latin American developing countries have faced in practice the hard realities of two special gaps - we describe in what follows:

(a) A Troublesome "Expectations-Effective Incidence Gap", refering to the usual divergence between the factual magnitude of taxation-originated redistribution of personal incomes in society, and what traditional policymakers thought they could achieve in these grounds. In some occasions even, the divergence between the

redistributive tax incidence results and expected policy results, has affected not merely values but also signs, and in the wrong direction!

(b) A complex "Credibility Gap" in the perverse feedbacks originated in the business world of taxpayers, from the way they read and form their long-run expectations about cumbersome and highly differentiated packages of tax reforms. There are several experiences in Latin America, where an inverse relationship has hold between: the credibility developed by the private community on the mid-term or long-term effectiveness of tax changes, and, the degree of complexity and expected difficulty of compliance arising out of specially ambitious tax reform packages.

It is more or less clear that feedbacks and impacts on effective tax revenues and final tax-mix arising from the taxpayers' responses to some "over-done" C.T.R.s, have precisely been some of the erosion factors explaining the "expectations gap" (poor results). Fiscal specialists in the developing world have tended to minimize or to ignore the degree of adaptation (and velocity of response) of average modern taxpayers as against tax burdens. The empirical elasticities for tax erosion, sophisticated tax evasion and perverse tax compliance, seem to have risen considerably in the modern context of private enterprises.

One other intervening factor here, has been the substantive increase in the international mobility of capital and of skilled-labor in developing countries, due to the opening of their economies to trade and financial debt. And due to the revolution verified in modern day communications. It is of outmost importance that fiscal advisers and policymakers do take account of this new overall context, and become more realistic about what they may really expect from CTR, in the modern developing world.

It is our firm belief that prior to further experimentations with new comprehensive tax reforms in the Latin American developing world, more scientific research on the relevant magnitudes of the policy trade-offs that we have been describing, needs to be carried out effectively. In turn, a continuous and well structured process of education about these matters, oriented to both tax advisers and policy decision-makers (including politicians) would have an interesting positive pay-off for society at large. Too many elements of the fiscal revenues, cost effectiveness, economic efficiency, and redistributive incidence

results, have been moving in different and very special directions in modern times, so as to continue to rely exclusively on simplistic prescriptions, derived from old text-books writen in the fifties under the closed economy framework.

It is of outmost importance that the lag between paradigms used for policy thinking, at the top echelons of government, and economic models truly relevant for the present reality of the developing world, be shortened or closed in the near future. The educational process is in these matters of crucial importance.

After all, comprehensive tax reform is one of the most delicate, complex and demanding tasks of fiscal policy. It means nothing less than a redesign of the tax system, attempting to strike a new long-run balance between:
the value of fiscal revenues; the degree of taxpayers confidence and compliance; the economic efficiency standards; the trend rate of economic growth; the state of affairs regarding the post-fisc distribution of factors' (and personal) incomes.

Isn't that combination of high-priority economic and political goals, worth investing more high quality resources to expand our knowledge in the developing world?

A P P E N D I X

A P P E N D I X

(A) SUMMARY OF THE TAX FISCALIZATION METHODS USED BY IRS CHILE, 1977-81 1/

I. FRAMEWORK OF CHILEAN TAX LAW

i) The reform of the income tax law was approached from a global point of view, and a completely new law was drawn up rather than introducing annexes to the existing legislation. In this new law almost all existent tax exemptions (which amounted to 164 pages of text) were eliminated, and tax rates for all taxpayers of similar characteristics were made uniform.

It is not difficult to imagine the chaos that the system of special tax franchises meant from the point of view of fiscalization, as well as the opportunities presented to taxpayers for contriving diverse tax evasion schemes.

ii) The cascading sales tax, which had an 8% tax amongst producers and a 24% tax between producers and consumers (and which contained 108 exemptions in the text of the law, as well as innumerable other franchises) was substituted for a value added tax with a single 20% rate applicable to all goods and services. The only items exempted from this tax were public transport and real estate.

The difficulty of reproducing in a computer the old cascading sales tax system that contemplated almost 300 special cases is understandable, as practically almost every type of sales transaction had its own particular tax rate. Thus the uniformity in rates, a characteristic from which abnormal behavior can be observed and automatically detected by a computer, was lost.

II. TAX EVASION CONTROL OPERATIONS

From 1977 onwards a series of measures, described below, were implemented in diverse areas.

A) Legal reforms between 1977 and 1981

1) Reforms that increase penalties for evasion:

i) Fines and mandatory closure were established for not giving sales receipts, and closure set between 1 and 20 days. In practice, the first infraction was penalized with 10 days and the second infraction with 20 days.

In practice this was the most used instrument, as apart from being profusely applied, it attacked the most

1/ This first part of this Appendix is based to a considerable extent, in a non-published memorandum by Mr. Cristian Eyzaguirre (85), former undersecretary of the I.R.S.

difficult link in the value added tax chain, consumers.

ii) Fines for not declaring taxes were increased.

iii) The law concerning penalties for tax transgressions was reinforced.

iv) The obligation of transporting all goods with a permit duly stamped by the Internal Revenue Service was established, and non compliance has the same penalty as not giving a sales receipt.

2) Reforms that further simplify the tax system and reduce the tax load:

i) The tranfer tax on automobiles is practically eliminated - reduced to 1.5%.

ii) The transfer tax on real estate is repealed.

iii) The special tax on bars and canteens is repealed.

iv) The tax on notarial acts is repealed.

vi) The stamp tax for sealed paper is repealed.

vii) The collection mechanism of specific taxes on energy, fuel and alcohol is tranformed into one similar to that of the VAT, with debits and credits.

ix) The personal income tax is reduced; the depreciation period for assets is reduced to one third; and the period for carrying tributary losses is increased to five years.

B) Changes in the organization of the IRS

1) A Management is established in each Region of the country and four in Santiago; from each depend inspection departments whenever justified by problems of distances. From about 140 inspection departments there are now only about 50 left.

2) A Vice-Management of fiscalization is created at the level of the National Management and its mission is coordinating fiscalization throughout the country. Additionally it counts with an important fiscalization group that travels throughout the country carrying out fiscalization plans, which are independent of those undertaken by the Regional Management.

3) The job of interpreting tax law, which was excercised by the

Sub-Direction of Research is handed over to the Normative Sub-Direction. To the first is now assigned the job of watching over the computational system and of realizing economic research that provide recommendations for modifying the existing tax law and for improving fiscalization.

D) Fiscalization policy

The introduction of computers in the fiscalization process is undoubtedly the most significant fact and the one of greatest impact on the style and results of the fiscalization process.

In general terms, a computerized system allows for opportune, exact and systematic information on taxpayer behavior.

With simple programs one can quickly detect behaviors that may signify tax evasion, and this can be efficiently verified by field visits of the public official to those places indicated by the computer programs. The increase in efficiency in the fiscalization process is enormous using this method.

Additionally, consistency programs are designed, both for VAT and Income, that detect "involuntary arithmetic errors", on the part of taxpayers. Once these errors are detected the taxpayer can be notified by mail of the type of error committed and can proceed to correct it. All this has a very low cost to the IRS.

Specifically, the programs implemented have the purpose of identifying both non payers and those that under declare VAT and income taxes. Below is a brief description of:

1) Income Tax

i) Non payers

- Firms that declare VAT but do not declare income once a year

- Persons that are buying houses, cars, stock, etc. and do not file a declaration

ii) Under declarers

- Firms whose eight column balance sheet results are inconsistent with monthly VAT declarations

- Persons whose declared incomes are lower than investment in houses, cars, stock, etc.

- Persons who declare an income lower than the information the IRS possesses of the tributary retentions that they have effected during the year

2) Value Added Tax

i) Non payers

- Firms or persons that have initiated activities and do not declare VAT

- Intermittent presentation of monthly VAT declaration

- Crossing of invoices (from 1982 onwards) - a process that consists in controlling that invoices accounted as fiscal credit in one firm have been accounted as fiscal debit in the issuing firm

- Comparison of the receipts' and invoices' stamping paper and the monthly VAT declaration (this has not yet been implemented)

ii) Under declarers

- The crossing of invoices system described above is also used

- Declarations that appear without flows in the period but that by crossing of invoices a debit or credit can be detected

- Analysis of the debit/credit ratio. This is a powerful instrument for detecting under declarers of the VAT. When purchases are compared with sales (by means of the fiscal debits and credits) a gross contribution margin can be determined for each taxpayer. Analysis of this ratio both in absolute terms and in comparison with those of other taxpayers inthe same line of business can help to determine quite precisely whether they are concealing sales or increasing purchases by means of false invoices.

E) Publicity

The publicity campaigns were planned so they would support the different computerized fiscalization programs. Although there was a certain amount of bluffing each time a new program was announced, quite a significant number of taxpayers received a notification of revision of the announced program. Therefore from the start a high degree of credibility in the IRB's action was established.

(B) THE INTERNAL REVENUES SERVICE'S OPERATION IN THE PERIOD 1984 - 1988.

Below are presented the principal criteria of operation of the Internal Revenue Service (IRS), together with the most relevant topics concerning tax reforms since 1984 and up to the present.

1. GENERAL CRITERIA OF THE IRS OPERATION

COMMUNICATIONS MEDIA

Each time the IRS undertakes a new operation, the Management, by means of the social communications media (press, radio and television) provides the general public with information regarding the bases and reasons that motivated the establishment of a new mode of fiscalization. It is thought that in this way both those affected by the new measure and the general public will understand better the IRS's actions.

TRADE UNION LEADERS

It is the Management's policy to be in permanent contact with trade union leaders of all sectors. They are notified in detail of the reasons and bases that have motivated or will motivate each of the actions undertaken by the IRS, so that they may in turn inform their groups, by means of the different communication media they possess.

This permanent contact has meant that a significant number of leaders have publicly declared to be against tax evasion, with a positive effect on their associates, and providing fundamental support of the IRS's operation.

INCENTIVES FOR CONSUMERS

The contest and sales receipts raffle that the IRS currently realizes through a television program has, amongst other objectives, the aim of providing consumers in general with a reason for requesting their receipt, in case the seller tries voluntarily to withhold it.

IMPERSONALITY OF THE FISCALIZATION PROCESS

It is necessary for taxpayers to realize that the selection, strategy and strictness of the fiscalization or control process applied, is due mainly to a computerized system. This system is

equal for all and therefore impersonal, as the supervision and inspection of the IRS does not depend on the criteria of the public official that revised the accounting antecedents of a particular taxpayer.

THE IRS'S ARGUMENTATION

The IRS's argumentation to the general public, through the communications media and trade union leaders, is based on the following fact: the unfairness and disloyalty on the part of tax evaders to those taxpayers who fulfill their tributary obligations - "tax evasion is not only a problem for the IRS, but a problem that affects the whole society".

2. EVOLUTION OF GENERAL POLICIES OF THE IRS

IMPROVING ATTENTION TO THE PUBLIC

With the aim of improving attention to the public the IRS proposed the following:

- the Regional Directories must maintain specialized personnel in their units

- the public can solve their doubts directly with the National Directory by telephone

- the IRS publishes in the press with anticipation the expiration dates for tax obligations, etc.

FUTURE OF COMPUTERIZED SYSTEMS IN THE IRS

It has been a permanent policy of the IRS to be technically up-to-date in the operation of its functions. In other areas the aim is to work together with the Treasury (Ministry of Finance), in order to avoid duplication of information. The IRS also hopes to have at least one terminal in each Regional office connected to the central computer. This progress is accompanied by appropiate training of the personnel.

3. FISCALIZATION FUNCTION - EVOLUTION OF MOST RELEVANT EVENTS AND CRITERIA

INCENTIVES FOR GOOD COMPLIANCE

A revision of the previous 12 months' declarations is done for VAT and other monthly tax taxpayers. If no irregularities are found, the IRS will not examine further back. If any faults are

found, up to the prescription terms will be revised.

NEW FORMAT FOR INVOICES

In 1985 new requirements for invoices and other documents were introduced. The new format has the following objectives:

a) give the document the importance it deserves, which implies certain requisites of size, design and lettering

b) facilitate identification of the document and of the person or firm that issues it

c) identify the firms who manufacture the documents

d) facilitate information crossing by means of a triplicate of the invoice that may be requested by IRS if necessary.

CONTROL OF GOODS

In order to restrict evasion, goods transported by any vehicle (such as trucks, etc) must be backed by documents (either invoices or shipping permits). Fiscalization may occur during the 24 hours of the day, and includes railways, airlines and buses. This mechanism also tries to detect suppliers of illegal markets, as the IRS cannot act directly against sellers.

MODIFICATION OF INFRACTIONS OF THE TAX LAW

For the offense of withholding sales receipts, invoices, etc. or of issuing them without meeting the legal requirements, the fine varies between 50% to 500% of the amount of the operation, with a minimum of 5 UF (US$ 91) 1/. Previously there was a fixed fine of 500%. This modification allows for judgement of attenuating or aggravating circumstances in each case. In the case of loss of accounting books and other supporting documents, the fine was reduced from a range of 10% to 40% of the infractor's capital to a range of 1% to 30%.

1/ This amount is indexed to inflation.

INCOME TAX OPERATION -

As from fiscal year 1985 a new concept of fiscalization exists. The income operation is now a permanent program of control of all declarations received any month of the year. These declarations are subjected to rigorous verification of consistency by computers, in order to:

a) insure a correct declaration

b) insure a prompt and efficient attention in the reception of forms and payment of excess taxes

c) provide a greater scope for fiscalization

d) obtain and render up-to-date information at general, sectorial and individual level .

PREVENTIVE CONTROL OF THE FUEL TAX

Within a basically preventive scheme and with the view of restricting fuel tax evasion, in 1987 two resolutions were published. They established the requirement of issuing a Fuel Purchase Order by buyers of these products, in order to eventually prove their right to discount the fiscal credit of their purchases.

4. RESOURCE MANAGEMENT POLICIES OF THE IRS

TRAINING

The training of the IRS personnel is coordinated by the Training School of the Service. In Santiago, this job is accomplished by systematic courses dictated by IRS monitors, on subjects such as Tax Law, Income taxes, VAT, etc. In the provinces, this training is realized by home courses, with a strict monthly evaluation by a monitor from the Regional Directory. Those who wish to join the fiscalization staff must first pass a Basic Course in Fiscalization. Finally there are several courses for updating knowledge in several areas.

5. INTERNAL ORGANIZATION

i) Budget Decentralization

Financial resources of the IRS (except the National Directory's investments) are rationalized in order to improve efficiency in use of resources.

ii) The IRS and its Regionalization Process

From 1975 onwards it has been a permanent policy of the IRS to decentralize its operations. Currently the IRS has an effective presence in 55 places (all regional and provincial capitals).

PUBLIC SERVICES

ii) Simplification of procedures and resource optimization in tax collecting

With the aim of facilitating tax payments, and thus reducing time consuming proceedures for taxpayers and encouraging voluntary fulfillment of tax obligations, the IRS has determined the following:

1) The State Bank, commercial and development banks and financial institutions can act as delegates of the Treasury Service for collecting all types of taxes.

2) In 1982 taxpayers who had to declare income tax once a year are now freed of annexing a series of other documents

iii) Conveniences for taxpayers in jurisdictional matters

With respect to procedures of tax claims and fines for infraction of tributary rulesthe IRS sought to confirm the organ qualified for studying and solving jurisdictional matters. An important step in this area has been to qualify all Courts of Appeal in the country for judging tributary matters, which means taxpayers have prompt access to justice.

iv) Simplification and convenience in procedures

i) lower interest fines for delayed payments

ii) establishment of new criteria in the matter of condonations as a reward for timely payments

iii) increase in the minimum amount needed to issue a receipt

iv) facilitate the procedures for the formal end of activities by a firm

v) elimination of duplication of fines for non declaration and non payment of taxes

From November 1987 taxpayers that live at farthest localities where there are no offices of the IRS now count with collect telephone consulting system, dialing the Regional Direction's telephone.

METHODOLOGY

Taxpayers information system "ARCO":

"ARCO" is a referential coefficient that helps configurate a Tributary Profile of the taxpayer. It consists of a set of 12 parameters grouped in 3 categories: Behavior, Compliance and Economic Reference. These parameters are an average of the values of the coefficient for a period of time and are weighed according to certain predetermined coefficients. An "ARCO" coefficient near 1 indicates a taxpayer with normal behavior, but a coefficient near 0 indicates quite abnormal behavior.

6. DIFFUSION AND PUBLIC INFORMATION POLICIES

INFORMATION FOR CONSUMERS

The consumer must receive information on:

- tax laws and obligations
- rights of taxpayers

This information reaches the consumer through publicity campaigns, notices in communications media, road signs, official bulletin, press supplements in periods of tax payments, etc.

TRIBUTARY INFORMATION

It is necessary to inform the public of tax norms using all possible media: tax norms supplements in newspapers, meetings with the private and public sectors to inform of reforms, informative bulletin sent by mail to unions, etc.

7. RESOURCE ALLOCATION POLICIES

MEASURES THAT BENEFIT MINOR TAXPAYERS

Starting December 1987 two measures that benefit minor taxpayers were introduced:

a) an increase from 10 to 20 M.T.U.[1/] (US$ 640) of December of each year in the exemption of the Global Income Tax, for minor investors in stock and other mobile capital;

b) the derogation of a special minimum tax that affected firms constituted by natural persons and partnerships who manage vehicles for public transport and freights.

1/ Monthly Tributary Unit (US$ 32), which is bassically indexed to past inflation.

B I B L I O G R A P H Y

1. Eduardo Aninat, "The Chilean Value Added Tax : History, Structure and Economic Effects" , Conference on the Value Added Taxation, Public Economics Division, The World Bank (Wash. D.C., 1986)

2. Eduardo Aninat, "Una Agenda Política Fiscal para Países Semi Industrializados de Latino América", Documento Seminario CEPAL, Naciones Unidas (Stgo, Chile, Agosto 1979)

3. Eduardo Aninat and Bernardo Fontaine, "Tipología de las Rentas del Capital y su Tratamiento Tributario Actual en Chile y los Estados Unidos", documento de trabajo Consultora "Aninat, Méndez y Asociados Ltda." (Agosto 1987)

4. Eduardo Bitrán and Gabriel Fierro, "Racionalización Tributaria en los Sectores Agropecuarios, Forestal y Pesquero", Serie Documentos de Trabajo N° 10, Departamento de Ingeniería Industrial, Universidad de Chile (November 1988)

5. Milka Casanegra, "Problems of Administering a Value Added Tax in Developing Countries: An overview", Conference on Value Added Taxation, Public Economics Division, The World Bank (Wash. D.C., 1986)

6. Ernesto Edwards , "Reforma Tributaria: Análisis y Alternativas", Centro de Estudios del Desarrollo (C.E.D., Stgo. 1984)

7. Sebastián Edwards and Alejandra Cox, "Monetarism and Liberalization: The Chilean Experiment", Ballinger Publishing Company (Cambridge, Mass,1987)

8. Cristián Eyzaguirre, "Resumen de la Experiencia de Control de la Evasión Tributaria en Chile: 1977-1981, (Stgo, Chile, 1983)

9. Z. Farhadian-Lorie and M. Katz, "Fiscal Dimensions of Trade Policy", IMF Working Paper, Fiscal Affairs Department, (Wash. D.C., May, 1988)

10. Malcolm Gillis, Carl Shoup, Gerardo Sicat, "Lessons from Value Added Taxation for Developing Countries", Conference of Value Added Taxation, Public Economics Division, The World Bank (Wash. D.C., 1986)

11. Mario Marcel, "Diez Años del IVA en Chile", Colección Estudios Cieplan N° 19, (Stgo., Chile , June 1986)

12. Juan Carlos Méndez (editor) "Chilean Economic Policy", Calderón, (Stgo, Chile, 1979)

13. Fernando Sánchez Ugarte, "The Effectiveness of Mexican Tax Incentive Policy"' Working Paper (Mexico)

14. Servicio de Impuestos Internos:

- Boletines Mensuales
- Revista del Servicio (various years)
- Manual de Consultas Tributarias

15. Carl S. Shoup, "Criteria for Choice Among Types of Value Added Tax", Conference on Value Added Taxation, Public Economics Division, The World Bank (Wash. D.C., 1986)

16. Vito Tanzi, "Inflation and the Personal Income Tax," (Cambridge, Cambridge University Press, 1980)

17. José Yañez and Miguel Izam, "Los Costos de Recaudación y Fiscalización de los Impuestos en Chile : Un primer intento de medición 1977-1981", Estudios de Economía N° 20, Universidad de Chile, (Stgo, Chile)

Do Taxes Matter?
A Review of the Incentive and Output Effects of Taxation

by

Jonathan Skinner

University of Virginia and NBER

May 1988

Do Taxes Matter? A Review of the Incentive and Output Effects of Taxation

by Jonathan Skinner

A selective review of the literature on taxation and economic behavior, and some new evidence on the link between taxation and national output, is presented in this paper.

From the point of view of taxpayers, the burden of taxation is what they pay to the government. However, should the government use its revenues wisely, such a tax may represent a net gain to society. Economists focus on a different type of burden caused by taxation. When taxes are imposed, consumers and producers try to avoid the tax burden by consuming, or producing less of the highly taxed good. As is explained in this paper, such economic behavior represents a net loss to society.

To illustrate this notion of the economic inefficiency of taxation, some heuristic examples are first chosen from historical and more recent accounts. It is shown that in some cases, the behavioral effects of taxes on consumer behavior are dramatic. In other cases (for example, investment incentives in developing countries) the evidence is mixed.

The latter half of the paper reviews the literature on a more direct measure of the incentive effects of taxation: how do taxes affect output growth rates? There are some consistent empirical regularities (the growth rate of the government sector is positively correlated with output growth rates in cross-country data), while there are other relationships with mixed results (the effect of tax rates on output growth rates is sometimes negative, and sometimes zero, in cross-country empirical studies). Some new evidence on these issues is provided using a comprehensive sample of 111 countries.

I. Introduction

Taxpayers often view the primary burden of taxation to be the amount they hand over to the tax collector. The obvious cost of taxation to the consumer is the lost income and higher prices of taxed goods; to producers it is the foregone profits and lower after-tax product prices. Throughout recorded history, citizens have registered their complaints against the taxes they pay with "murmurs and with smothered curses among them from hatred of the burden."[1]

This paper will stress that the tax bill that taxpayers grumble about — the private cost — has little to do with the full social costs of the tax. The reason is that from a social point of view, money collected from the private sector is equal to the money gained by the public sector (less administrative costs). It is certainly possible that the government programs financed by this revenue, such as education, health, or transportation, will provide to the average taxpayer the same, if not more, than the benefits that would have been realized had the taxes never been collected. To the extent that the government uses the tax revenue wisely and effectively, the loss of the private individual's tax payment can yield a greater gain to society. Of course, it is not suprising that taxpayers seek to avoid paying taxes, since their payments will have little effect on their own benefits from government spending.

This paper will focus primarly on a different type of cost. Private citizens bear the burden of this cost of taxation, but there is

---

[1]The quotation is from a 15th century writer observing taxpayers' reactions to the taille in England (Sabine, 1980; p. 55).

no offsetting revenue gained by the government. Without the offsetting gain, there is a "deadweight" cost to society as a whole. These costs are in some sense abstract, and more difficult to measure, but they are important because they reduce the well-being of consumers or drag down the productive capability of the economy. The goal of any tax system should be to minimize these costs, given the revenue that the government must raise.

It is useful to categorize these subtle costs of taxation into three groups. The first is the efficiency cost of a tax. Such costs do not appear in government budget statements, but are costs nevertheless. They are caused by the distortion in taxpayer's behavior caused by the tax-induced changes in prices and wage rates. For example, a payroll tax may discourage salaried work, and thereby reduce the productivity of the labor force. A tax on capital income may reduce savings and hence investment. Because the government cannot collect any taxes on the foregone labor, or the foregone savings, it loses revenue. Because the individual no longer enjoys the benefits of the wages from the foregone work, or the proceeds of the savings, he or she is worse off. Hence the government loses potential revenue and the taxpayer is worse off.

Another cost of taxation is the administrative, compliance, and avoidance costs from collecting it. Strictly speaking, the administrative cost is observable; one need only check the yearly budget to measure how much the government spends to collect revenue. But administrative costs may be only a fraction of compliance costs (accountants hired to fill out tax forms) or avoidance costs (fast boats and circuitous routes to smuggle goods into the country). These latter

two costs still represent "leakages"; the use of otherwise productive resources in unproductive, tax avoidance or compliance activities.

Costs may also be expended on bribery and other forms of direct income transfer to avoid paying taxes. While such activities do not place a drain on resources per se, they do lead to a most undesirable distribution of income away from the public treasury and towards the more corrupt officials, and towards a general breakdown of professional standards in tax administration. It is important to note that while corruption harms the economy, it does so in a way which is different from the social costs discussed above.

The final cost of taxation relates primarly to the turmoil which surrounds any change in the tax code. Companies which are unsure about future tax provisions may assume the worst and cancel investment plans, despite the best intentions of the host company. These are, once again, costs borne by taxpayers which yield no extra revenue for the government.

One goal of this paper is to provide a partial review of the deadweight or social costs of taxation. The review is very selective, and picks out readily apparent examples of deadweight costs. That is, it focuses on obvious examples or vignettes to illustrate and enliven the usual abstract measures of efficiency cost. Another goal is to determine whether these "deadweight" costs of taxation have an ultimate effect on national output. In particular, recent papers (Marsden, 1983; Landau, 1986; Skinner, 1988; Engen and Skinner, 1988; Koester and Kormendi, 1988) have stressed the negative impact of taxation on output growth rates. A sample of 111 countries is used to examine whether

there are readily apparent relationships between fiscal policy and output growth rates.

Perhaps one reason why efficiency or "deadweight" costs receive little weight in policy discussions is because the notion of efficiency cost is so abstract and difficult to quantify. The next section therefore draws on a simple example of commodity taxation to illustrate what the efficiency cost is, and to distinguish it from smuggling costs. Section III provides a selective review of efficiency cost, and in particular draws on historical examples for illustrative purposes. Section IV presents evidence on the correlation between taxation and output growth rates, while Section V concludes.

II. Why Taxes Cause Efficiency Losses

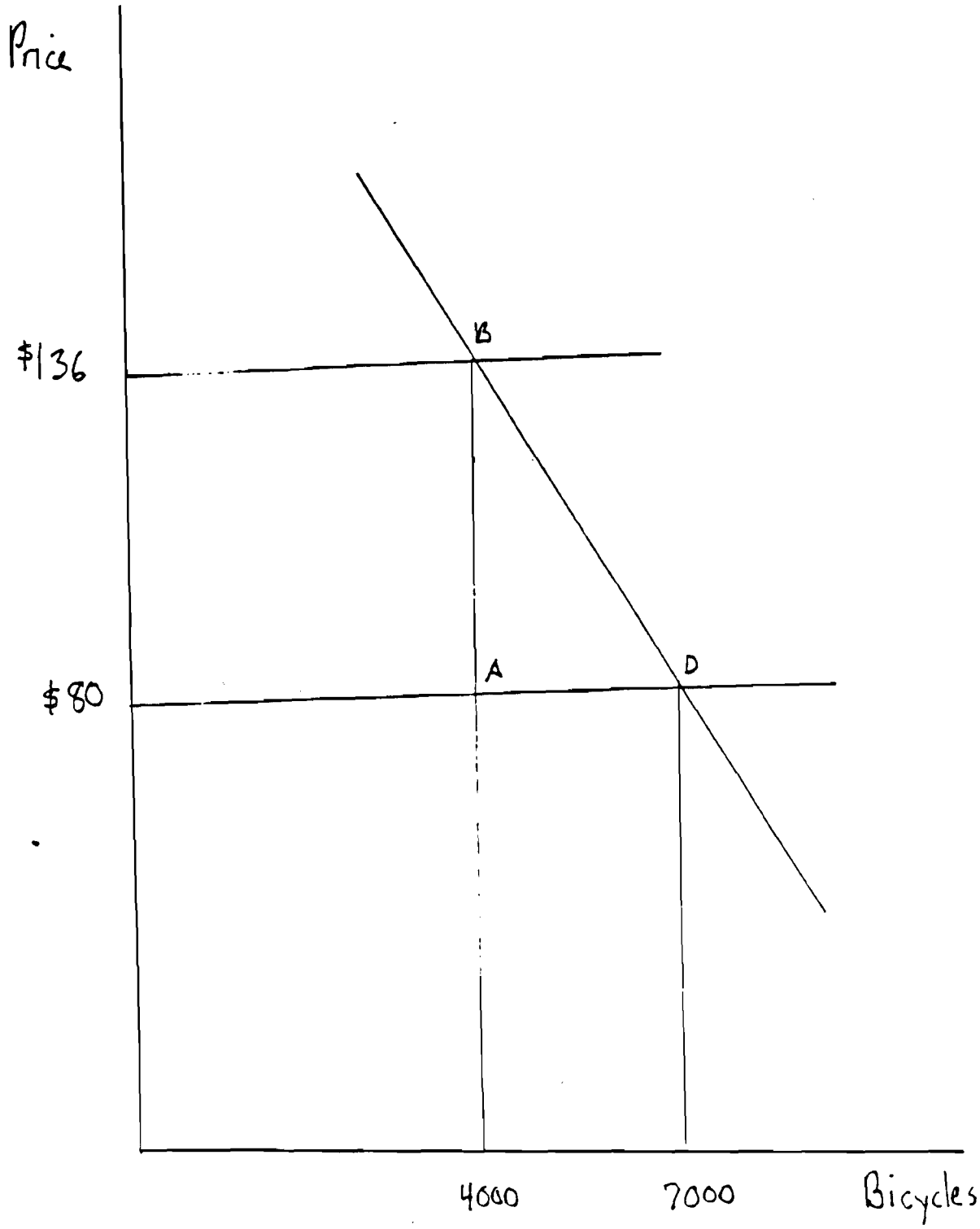
Because economists have focused on efficiency as the guiding principle for tax design, it is useful first to provide a simple description of the efficiency cost of taxation. I focus on one example, that of a commodity tax on bicycles, but the principles of efficiency cost extend quite generally to other types of taxes as well.

Consider the case of the tariff on bicycles in a hypothetical developing country. Assume that the before-tax price of bicyles, which must be imported, is $80. The import tariff in at least one developing country is 70 percent, bringing the total price to $136.

I will assume that farmer is willing to pay $80 for the bicycle, but is unwilling to pay the full $136 price. In fact, this farmer will pay up to $100, but blanch at any price higher.

What is the efficiency cost of this tax? It is quite easily

Figure 1: Excess Burden of a Tax on Bicycles



calculated. Without the tax, the farmer would buy the bicycle for $80. Since he would have paid $100 for the same bicyle, he enjoys a "consumer surplus" of $20; the excess of what the bicycle is worth to him (i.e., what he would have paid) over the price actually paid.

When government imposes the 70 percent tax, the farmer no longer purchases the bicycle, and no longer enjoys the "consumer surplus" of $20. The government collects no additional revenue (at least from this potential taxpayer); since the bicycle is not purchased, no taxes are paid. The farmer loses $20 and the government gains nothing.

This story which applies to only one individual can be generalized to the countrywide market for bicycles. Some will be willing to spend more than $100 (or even more than $136), while others are willing to spend less. We can array each individual looking for a bicycle during the year as in Figure 1, with the vertical height being the maximum each farmer is willing to pay (i.e., the demand curve). The numbers are based loosely on trade data from one African country.

Assume 7000 bicycles will be sold without any tax. If there is a tax of 70 percent, then only those who value the bicycle above $136 will buy it; assume this is a total of 4000 thousand. The <u>efficiency cost</u> of the tax can be calculated in the following way.

Assuming that each person only buys one bicycle, there are 3 thousand individuals who have been discouraged from buying a bicycle because of the tax. The individual right at the margin of buying a bicycle with the tax might have valued the bicycle at $135.98. Hence his consumer loss is $135.98 - 80 = $55.98, or the consumer surplus he <u>would have enjoyed</u>, had there been no tax. The next individual might

value the bicycle at $135.96, so that his consumer surplus would have been $55.96. We may perform this calculation for all the 3,000 individuals who would have bought the bicycle. The sum of all the losses is the area of the triangle denoted by BAD in Figure 1. The area of this triangle is measured by one-half the amount of the tax ($56) times the change in quantity demanded for the product (3,000), or $84,000.

The efficiency cost of $84,000 is a clear loss to society. The magnitude of this loss is more than one-third of the revenue (which is $56x4000 = $224,000). What this means is that on average, every $1.00 in revenue collected by the government causes a loss to consumers of $1.33; $1.00 in the revenue actually paid plus $0.33 in foregone "consumer surplus" from the enjoyment of a commodity which would have been purchased had there been no tax.

The calculation reported above determined the <u>average</u> efficiency cost of the tax as a fraction of the revenue. A different measure would be the <u>marginal</u> efficiency cost; what is the change in the efficiency cost if government revenue is increased by a certain dollar amount. For example, if the bicycle tax were raised from 70 percent to 80 percent, the price would increase to $144. If, in turn, quantity demanded fell to 3,570, then the change in revenue would be $4,480 ($228,480 - $224,000), but the efficiency cost would increase by $25,760 ($109,760 - $84,000). In this case, the efficiency cost increase is more than <u>5 times</u> the tax revenue increase. For the tax increase to be justified on efficiency grounds, each dollar spent must return more than $6 in social benefits.

Finally, if there were smuggling of bicycles, the government would find that not only would lower tariffs increase bicycle purchases, but it also might reduce the amount of smuggling. Shifting the importation of bicycles from illegal to legal channels may have little effect on the domestic use of bicycles, but it will have a positive impact on the government's revenue. For example, when Bangladesh decreased its tax on fabrics from 200 to 100 percent, legally imported fabrics more than doubled, so that revenue actually increased. It is unlikely, however, that domestic consumption more than doubled; what is more likely is that smuggled fabrics became legally imported fabric, which shifts income from smugglers to the government.

Efficiency costs are present when producers are taxed. The most obvious examples of the deadweight or efficiency cost of a producer tax comes from countries such as Tanzania and Ghana, where heavy export taxation (either implicit or explicit) have squeezed agricultural production, leading to a sharp fall in output, foreign exchange earnings, and tax revenue (see the World Development Report, 1986). Once again, producers lose because they are producing less under the tax, but the government gains no extra revenue from the reduced production activity. When export taxes affect such an important component of the economy (especially once the linkages with the rest of the economy are accounted for), it seems clear that the taxation of agricultural output caused a substantial decline in national output.

One point should be made here. In many socialistic countries, there is little or no weight placed on "consumer surplus"; taxes which discourage the use of, e.g., luxury or decadent capitalistic goods are

thought to be socially beneficial. Such taxes prevent citizens from placing private over social responsibilties. However, even socialistic countries should avoid distortionary producer taxes, since more (of the socially correct commodities) is still preferred to less.[2]

These simple examples have provided illustrations of the efficiency cost of taxation. It is a further question how efficiency cost can be measured, and whether there is convincing evidence that efficiency costs are large and important. It is to this issue that we turn next. First, selective evidence for a variety of tax instruments is presented, from both developed and developing countries. As noted above, this evidence is chosen for its illustrative or pedagogical value; no attempt is made to make an exhaustive survey of taxation and incentives.

III. Taxation and Economic Behavior

The following section reviews the evidence about how taxation affects economic incentives. Because different tax instruments will have different effects on behavior, each tax is discussed separately.

Trade Taxation

Import and export taxes have been the principle method of collecting taxes for countries in early stages of development. The ease of administrating a tax collected at only a few entry and exit ports explains trade taxes' popularity. Yet early on, governments recognized the costs of excess customs duties. For example, an unnamed

---

[2]I am neglecting here the issue of the incidence of the tax. Producers of decadent capitalist goods may be taxed in lieu of taxing consumers directly; the same outcome — a reduction in output of the commodity — will occur.

commissioner in the 18th century English customs shared this advice;

> I will tell you a secret, which I learned many years ago from the commissioners of the customs in London: they said when any commodity appeared to be taxed above a moderate rate, the consequence was to lessen that branch of the revenue by onehalf; and one of these gentlement pleasantly told me that the mistake of parliaments on such occasions was owing to an error of computing two and two make four; whereas in the business of laying impositions, two and two never made more than one....[Smith, 1976: (ii) 411]

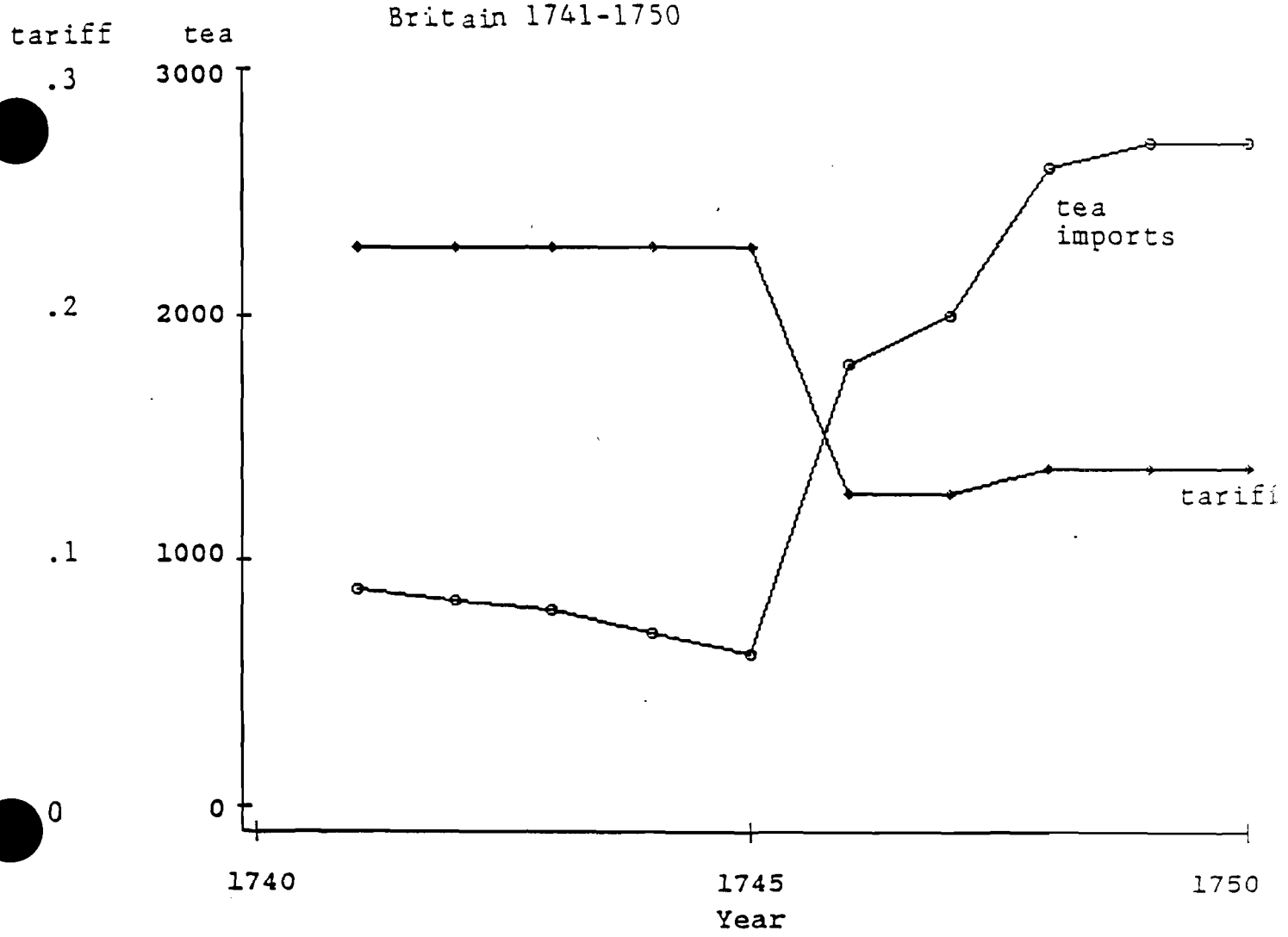
What is lurking in the commissioners' mind is an early precursor of the "Laffer" effect; that revenue may even fall if tariffs are raised. It is only in the extreme case that revenue will decline when tariffs increase, but the principle — that taxes can have a strong impact on the quantity of legal imports — is emphasized here. There are two reasons why revenue may suffer in response to a tax increase. The first is that the tax discourages imports, leading to a decline in consumption of the good. The second cost is the erosion of tax revenue through smuggling. This is a different type of cost; the smuggled good is still consumed, but at higher resource costs for extra-legal transportation (and associated anti-smuggling resource costs).

Additional evidence in favor of the strong price sensitivity of imports comes from the reduction in British tariffs on tea after 1745 reported by McCulloch (1845), and depicted in Figure 2. The effective average import duty, and total imports, are reported for each year between 1741 and 1750. In 1745, the tea tariff was reduced by more than 50 percent, with a pronounced effect on importation of tea.[3] It seems

---

[3]One should always be wary of using event studies to make inferences about whether A affects B, since other factors which changed at the same time may have affected B as well. However,

Figure 2:Tariff Rates and Imports of Tea, Britain 1741-1750



Source: McCulloch (1984), page 332. Tea is measured in thousands of pounds

clear in this case that much of the increased importation of tea was due to a reduction in smuggling, although consumption of tea is likely to have increased as well. Nevertheless, the income transfer from smugglers who previously could pocket the smuggling premium, to consumers paying lower prices, is a laudable social goal in itself.

Not all goods will respond so readily to tax cuts. These illustrations are provided to show the extreme degree of distortions that taxes are capable of imposing. In most cases, reducing tax rates will lead to increased consumption (and production) of the good in question, which reduces the social efficiency cost, but revenue will generally fall in response to the tax cut. There are a few exceptions; Lindsey (1987), for example, suggested that the decline in the U.S. longterms capital gains tax actually increased tax revenue during the early 1980s. The evidence is strong that such "Laffer" effects are rare anomalies (for a review, see Fullerton, 1982). The point remains that even if a tax cut does not increase revenue, it will increase consumption of the good and, to the extent that consumption of the imported good is deemed socially desirable, augment national welfare.

McCulloch (1845) also pointed out the risks of assessing heavy export taxes for countries with monopoly power in that export good.

> The duty on cinnamon exported from Ceylon may be referred to in illustration of the mischievous consequences resulting from carrying duties on exports, even when the exporting country has great facilities of production on her side, to an unreasonable extent....This [export] duty was sure,... to prevent the trade from extending; but it has done more than this: it has led to the

---

the dramatic change in imports over such a short period at a time when the tax rate has changed provides strong evidence in favor of the inference that the lowered tax rate increased tea imports.

> introduction and successful cultivation of the cinnamon plant in Java, Guiana, and the West Indies; and it has also led to the general substitution of cassia in the place of cinnamon [pp. 197-198]

More recently, the impact of export taxes on agricultural output has been the focus of many World Bank studies, some of which are summarized in the 1986 World Development Report. The oft-cited experience of Ghana with export taxes on cocoa (either explicit or implicit, through marketing boards and fixed exchange rates) is a particularly dramatic illustration of the incentive effects of taxation. Like Ceylon many years ago, the monopoly position of Bangladesh in jute has been eroded as synthetic substitutes have been developed. In short, the gains from monopoly pricing of export goods may well be shortlived.

More recent studies of trade taxation have stressed the complex effects of import and export taxation on the entire economy. There are a number of simulation models which implement econometrically estimated parameters in general equilibrium models of particular countries (Clarete and Whallley, 1987; also see Shoven and Whalley, 1985). The excess burden of trade taxation is then addressed using a "counterfactual" — what would be production and income if the existing tariffs were replaced by increasing other taxes so that government revenue is held constant? A comparison of real income, or of consumer utility, provides a measure of the excess burden of the tax. That is, these models can calculate the loss in consumer "surplus" caused by tariffs. The disadvantage with the simluation is that it cannot be tested, and the accuracy of the prediction is only as good as the assumptions embedded in the model.

In general, such studies of particular countries have shown substantial losses caused by trade taxation. A recent paper by Dahl and Mitra (1986), however, suggests that tariff reform in India would have only minimal effects on national welfare.

Payroll Taxation

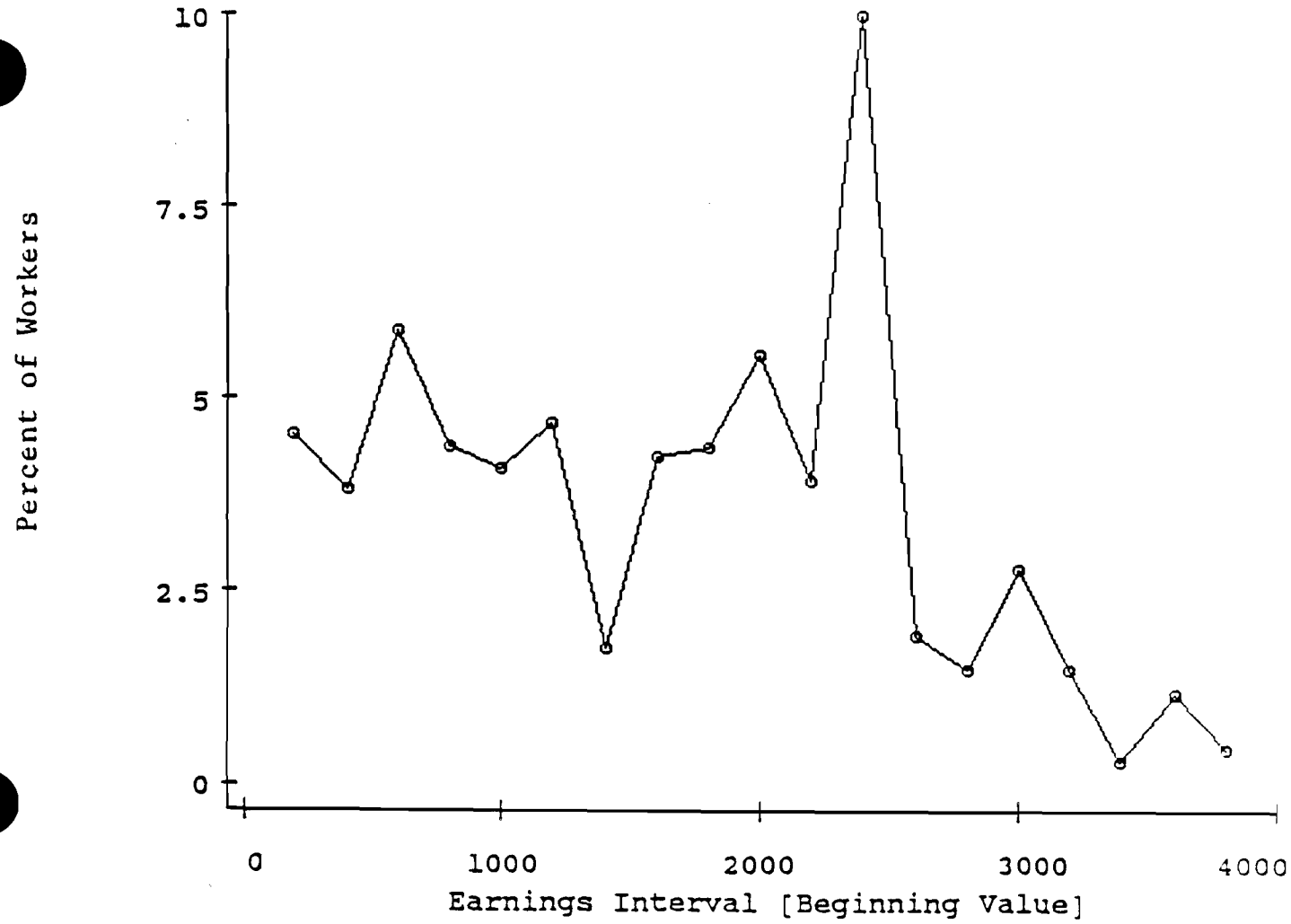
There have been many studies of the efficiency cost caused by payroll taxes in developed countries. In general, the efficiency costs were found to be minimal, owing to low estimated elasticities of labor supply for men (for a review, see Killingsworth, 1983). Generally, the responsiveness of labor supply to its own wage is higher for married women, and for older and younger workers.

A graphic example of how payroll taxes affect hours of work is provided by data in Kotlikoff (1978). Figure 3 displays the frequency distribution of wage earnings for men over aged 65 in the US (not including the 32 percent earning over $4000 dollars). The spike in the middle of the distribution occurs because wage earnings over $2400 (in 1974) were implicitly taxed at a very high rate. For those enrolled in social security (the vast majority of the population), benefits were reduced by 50 cents for every one dollar increase in wage earnings over $2400. The spike just under $2400 suggests that if the tax had not been in existence, more hours would have been supplied. Once again, this "bunching" represents a net loss to society, since the potential workers limit their hours, which only deprives the government of revenue.[4]

Payroll taxes in developed countries are thought to cause

[4]Revenues include both payroll taxes on extra hours of work, and the potential reduction in social security benefits.

Figure 3: Percent Distribution of Workers
Aged 65-71: Males, 1974



Source: Kotlikoff (1978). Earnings intervals are $200; 32 percent earned more than $4000. The Social Security earnings limit is $2400.

efficiency losses because workers vary their labor supply in response to the net wage rate. This neoclassic view is viewed by Fields (1987) as irrelevant to developing country tax policy. The payroll tax is typically assessed only on high wage workers in large-scale companies. The coverage of the payroll tax will therefore be minimal, and more closely resemble a tax on large corporation doing business in the country (especially if they must pay a given net wage rate to attract highly skilled workers). Given that the payroll tax rarely affects farmers or lower income workers, the incentive effects of such a tax are, in his opinion, small. If the payroll tax is simply a tax on doing business for large scale companies, and if the tax is passed along to consumers (see Brent, 1986), then its distortion in developing countries is to artifically raise prices of some goods more than others. In fact, according to the Harris and Todarro model (1970), a policy which reduces net wages can reduce urban unemployment by decreasing the attractiveness of competing for scarce urban jobs.

Taxation of Investment and Savings

There is a substantial and growing literature on measuring the efficiency cost of investment and savings taxation in developed countries. The efficiency cost takes two forms. First, if the rate of return on savings is reduced, savers face lower interest rates. Holding overall tax revenue constant (so that the change is "compensated"; roughly speaking, the taxpayer's lifetime disposable income is held constant), consumers will consume too much and invest too little today, at the expense of future consumption.

The second problem associated with this tax is that it attenuates

the capital stock. Over time, as less investment takes place, the growth in the capital stock will fall, which (in a neoclassical model) will lead to a lower overall standard of living; national income and wages will both decline. Many studies of savings and investment taxation have focused on the impact of taxation on the dynamic path of capital growth.

The excess burden of a tax either on savings or on taxation will depend on how sensitive these factors are to taxation. At present, there is no consistent evidence that net-of-tax interest rates have a strong effect on savings rates. In the United States, Densison's Law — that gross private savings was a constant fraction of GNP — was once invoked as evidence that taxes and interest rates had no effect on savings rates. However, as Boskin (1978) suggested, the relevant measure of savings for tax policy purposes was net savings as a fraction of disposable income. The results of econometric studies testing whether taxation, or the net interest rate, affect savings, are mixed (e.g., Boskin, 1978; Howrey and Hymans, 1978). Earlier studies of savings rates in developing countries have similarly found mixed results (Mikesell and Zinser, 1973).

The introduction of IRAs in the U.S. has provided a recent natural experiment to test the effect of savings incentives. The success of IRAs has been undeniable; from $5 billion in 1981, IRA contributions have grown to an estimated $45 billion in 1986 (the last year in which their generous tax advantages are uniformly available). In itself, this is not a test of savings incentives, since the sudden increase in IRAs could represent a shift out of other, more heavily taxed, savings

instruments. (An inframarginal shift from taxed investments to IRAs represents only a loss to the treasury without new savings.) Venti and Wise (1987) provide evidence, however, that roughly two-thirds of the new IRA saving came from a reduction in consumption, with the remaining one third representing a shift from other savings instruments. In sum, the mixed results from aggregate regressions may reflect problems with data measurement, but there is some evidence that specific programs designed to increase savings may be successful.

Other researchers have attempted to evaluate the impact of taxation on savings in computable general equilibrium models using parameter values estimated in econometric studies (Summers, 1981; Fullerton, Shoven, and Whalley; 1983; Auerbach, Kotlikoff and Skinner, 1983; Ballard, Fullerton, Shoven, and Whalley, 1985) In these models, individuals hold a varying degree of foresight, and make current consumption and savings choices based not simply on current prices, but on future prices as well. They find uniformly large efficiency gains from switching to a general income tax to a consumption based tax. One explanation for these results is the extent to which future prices affect current consumption for the life cycle consumers. The reason is that over the extended horizon relevant for consumption, a 30 or 40 percent tax on interest can translate into a large distortion against future consumption. For example, if the gross interest rate were 8 percent and the tax were 40 percent, then the net return would be 4.8 percent. The cost of consuming one dollar of consumption 30 years in the future, in terms of current consumption, is 10 cents at the 8 percent interest rate, and 24 cents at the 4.8 percent interest rate.

That is, the 40 percent statutory real tax rate translates into a 140 ([24-10]/10) percent tax on future consumption. It is not suprising that removing such a tax yields an improvement in utility, especially in models with infinitely lived individuals (Chamley, 1981).

It should be emphasized that the large savings elasticities which are implied by the life cycle model are rarely if ever found in empirical studies. This could be caused by innapropriate measures of savings, or by aggregation bias (in time series studies). My own opinion is that the simulation studies neglect issues of uncertainty. If, for example, there is uncertainty about future interest rates and wages (Skinner, 1988), or about what future taxes will be (Skinner, 1986), fluctuations in current net-of-tax interest rates are unlikely to signal a large change in future interest rates. This year's jump in the tax rate provides only a small amount of "news", relative to "noise" about the net interest rate 10 years hence. The role of uncertainty is likely to be even more important in developing countries, where regime shifts and fluctuating commodity prices would be the norm.

Econometric studies of savings in developing countries are difficult, owing to problems of measurement. First, gross domestic saving is measured as a residual by subtracting the current account deficit from gross capital formation. Because there are usually no independent measures of national income, it is often difficult to check the accuracy of the savings estimates (Mikesell and Zinser, 1973). In addition, there is no single net return to saving or user cost of capital; different investment projects receive different tax treatment, while some savings accounts may enjoy preferential treatment over

others. In light of these measurement problems, it is perhaps not suprising that evidence from developing countries about savings and taxation is mixed.

A more general model of savings and investment allows for the two to differ by including an international sector. In such a model, incentives for investment will affect the country capital stock differently than incentives for savings (for example, Mutti and Grubert, 1985; Frankel and Razin, 1988). The reason is that investment incentives will encourage foreign investment in the home country, independent of what home country savings happens to be. Alternatively, an incentive for savings will encourage home country taxpayers to save, but that savings may not be reflected in home country capital — it can simply flow abroad (so that the foreign country will enjoy the benefits of the investment). Despite the theoretical unshackling of savings and investment, there is a suprising degree of correlation between the two measures across countries (Feldstein and Horioka, 1980).

The discussion below will focus on investment incentives, since developing countries are often concerned with attracting foreign investment from developed countries. In addition, evidence is presented on the impact of the tax code on U.S. investment abroad, and on direct foreign investment in the U.S.

The fundamental problem with assessing the importance of investment incentives on actual investment is whether such provisions encourage additional investment. Firms which had already planned to invest in the country would take advantage of the incentive, possibly without any change in economic behavior. If this were the case, the "incentives"

would simply represent a transfer of revenue from the government to the business sector.

Tables 1 and 2 present a summary of fiscal incentives offered in 28 developing countries; the data are from Shah and Toye (1980).[5] The primary mechanism for providing investment incentives is the tax holiday, in which the company is exempt from company taxes for a fixed number of years which, in this sample, ranges from 2 to 10. The second most popular incentive is some form of high depreciation allowance, investment credit, or development rebate. The third commonly used scheme is the exemption of imported capital goods from import tariffs.

There are a number of methods for testing whether these incentives are effective. Some studies have examined the investment to GNP ratio before and after the tax changes (see references in Shah and Toye (ST)), although it is difficult to attribute changes in this ratio only to the tax changes. Essentially (if there is no trend), there is a 50 percent probability that the investment to GNP ratio will go up after the tax change.

Alternatively, the businessmen can be interviewed to assess whether the tax incentives were important in their decisions. In a study of Mexico (Stanford and Christensen, 1959; quoted in ST), 14 of 24 firms surveyed said they would have invested the same amount even in the absence of the tax incentives. Nine firms reported that the "probably" would have invested the same amount, while only one firm attributed an

---

[5]For an overview of investment incentives in developing countries, also see Usher (1977).

TABLE 1

SUMMARY OF FISCAL INCENTIVE SCHEMES IN 28 DEVELOPING COUNTRIES

TYPE (A1) SCHEMES ONLY

Country	*Source**	*Tax Holiday (years)*	*Loss Carry-over (years)*	*Dividends*	*Annual Profit Limit*	*Other Conditions*	*Interest Deductible from Profits*
1. Afghanistan	62(b)	4	—	Exempt	—	—	Yes
2. Bangladesh	53	5	—	Ex.	—	—	—
3. Barbados	21(a)	7/9	5/7	Ex. until year 9/11	—	—	Yes
4. Ecuador	37, 61, 62(d)	5	6	Ex.	—	—	Foreign loans only
5. Fiji	21(f), 58, 66	5	6	Ex.	15% K	—	—
6. Guyana	14, 15, 32	5	—	Ex.	—	—	—
7. Ghana	37	4/10	—	Ex.	—	—	—
8. India	18, 21(d)	5	3	Ex.	7% K	—	Long term foreign loans
9. Indonesia	55	2/3	indefinite	Ex.	—	see notes	—
10. Ivory Coast	37	5	—	Ex.	—	—	—
11. Jamaica	21(a)	5	6	Ex.	—	—	Yes
12. Malaysia	21(e), 34 41, 62(f)	2/5	—	Ex.	—	see notes	—
13. Mauritius	21(d), 58	5/8	indefinite	Ex.	—	see notes	—
14. Niger	37	10	—	—	—	—	—
15. Nigeria	44, 49, 50, 62(d)	2/5	4	Ex.	—	see notes	—
16. Paraguay	62(c)	5	—	—	30% to 50% K	—	—
17. Pakistan	3, 6, 19, 20 21(d), 29, 53	4 (to '65) 2 (to '71)	—	Ex.	5% to 10% K	—	Foreign loans only
18. Peru	65	3	—	Ex.	—	—	—
19. Senegal	37	8	—	—	—	—	—
20. Sri Lanka	4, 5, 53	5	—	Ex.	10% K	see notes	—
21. Sierra Leone	37, 58	5	indefinite	Not Ex.	—	—	—
22. Singapore	21(e), 28	5/10	—	Ex.	—	see notes	Yes
23. Sudan	21(b), 60	3/10	5	Ex.	10% K	see notes	—
24. Surinam	11	5/10	—	Ex.	—	see notes	—
25. Tanzania	21(b)	—	—	—	—	—	—
26. Trinidad and Tobago	21(a)	5/10	5	Ex.	—	see notes	Yes
27. Uruguay	68	10	—	—	—	—	—
28. Zambia	21(c)	—	—	—	—	—	—

*The figures in this column refer to the numbered sources in the Reference list at the end.

Notes

9. *Indonesia.* If capital investment is $2·5 million or less period of tax holiday is 2 years. If more than $2·5 million, 3 years.
12. *Malaysia.* If capital investment is M$250,000, tax holiday period is 2 years; if up to M$500,000, 3 years; if up to M$1 million, 4 years; if over M$1 million, 5 years.
13. *Mauritius.* If 100 employed, 2 extra years tax holiday; if 200 employed 3 extra years; if up to 350 employed, 4 extra years; if over 350 employed, 4 extra years.
15. *Nigeria.* If capital investment less than N. 10,000, no holiday.
21. *Sri Lanka.* 20 per cent additional tax relief, if over 50 employed.
22. *Singapore.* If capital expenditure exceeds $10 million, tax holiday extended to 10 years.
23. *Sudan.* If capital expenditure is up to £50,000, period of tax holiday is 3 years; if capital expenditure is up to £150,000, period is 5 years. Holiday is extendable by a further 5 years.
24. *Surinam.* Period of tax holiday is up to 10 years, depending on the size of the capital investment.
26. *Trinidad and Tobago.* Period of tax holiday on a sliding scale between 5 and 9 years. 10 years tax holiday for capital intensive and enclave enterprises.

Source: Shah and Toye (1980).

TABLE 2

SUMMARY OF FISCAL INCENTIVE SCHEMES IN 28 DEVELOPING COUNTRIES — TYPE (A2), (B1) AND (B2) SCHEMES

Country	*Source**	*(A2) First Year Allowance*	*Annual Allowance*	*I.A., I.T.C. or D.R.*	*Extra Shift Allowance*	*(B1) Import Duty Exemption*	*(B2) Investment Grant*
Afghanistan	62(b)	—	—	—	—	—	—
Bangladesh	53	10/30%	—	—	—	P+M Ex.	—
Barbados	21(a)	20% on P+M	—	I.A. 40% on P+M	—	—	—
Ecuador	37, 61, 62(d)	—	29% (5 yrs.)	—	—	P+M Ex.	—
Fiji	21(f), 58, 66	20% on P+M	At taxpayer's discretion	I.A. 55%	—	—	Up to 50% K (hotels only)
Guyana	14, 15, 32	40% on P+M 10% on B	—	—	—	P+M Ex. (10 yrs.)	—
Ghana	37	—	—	—	—	—	—
India	18, 21(d) 31, 53, 57	25% of K†	—	D.R. 15/25 40%††	D.S. = 50% D T.S. = 100% D	— —	— —
Indonesia	55	—	—	—	—	P+M+R Ex.	—
Ivory Coast	37	—	—	—	—	—	—
Jamaica	21(a)	20% of K	—	I.A. 20%	D.S. = +20% of I.A.	—	—
Malaysia	21(e), 34 41, 62(f)	80% of K	20% (1 yr.)	I.T.C. 25%	—	—	—
Mauritius	21(d), 58	—	—	—	—	—	—
Niger	37	—	—	—	—	—	—
Nigeria	44, 49, 50 62(d)	—	—	—	—	P+M+R Ex.	—
Paraguay	62(c)	—	—	—	—	—	—
Pakistan	3, 6, 19, 20 21(d), 29, 53	10/30% on P+M	15% p.a.	I.T.C. 10%	D.S. = 50% D T.S. = +100% D	P+M+R Ex.	—
Peru	65	—	—	—	—	P+M+parts Ex.	—
Senegal	37	—	—	—	—	—	—
Sri Lanka	4, 5, 53, 62(a)	33⅓/80%	—	I.T.C. 10% D.R. 20/40%	—	P+M Ex.	—
Sierra Leone	37, 58	—	—	—	—	—	—
Singapore	21(c), 28	20/100% (discretionary)	33⅓%	—	—	—	—
Sudan	21(b), 60	—	—	—	D.S. = +3×D	P+M+parts Ex.	—
Surinam	11	—	(optional)	—	—	P+M+R Ex. (First 3 yrs.)	—
Tanzania	21(b)	—	12½% p.a.	I.A. 20%	—	—	—
Trinidad and Tobago	21(a)	0/40% on P+M after holiday	—	—	—	—	—
Uruguay	68	—	—	—	—	—	—
Zambia	21(c)	—	—	I.A. 20%	—	—	—

*The figures in this column refer to the numbered sources in the Reference list at the end.

Key to table: I.A. is investment allowance, I.T.C. is investment tax credit and D.R. is development rebate.
P is plant, M is machinery, B is buildings, R is raw materials, K is capital expenditure, D is depreciation.
D.S. is double shift and T.S. is triple shift.
† with effect from June 1974. †† up to and including May, 1974.

important role for the tax incentives. Of 40 Pakistani firms surveyed, 8 reported that the tax incentives were important factors in their decision (Azhar and Sharif, 1974; ST). The equivalent figures for Jamaica was two firms out of 55 surveyed (Chen-Young, 1967; ST). As Shah and Toye (1980) note, bias in questionaires can go in two directions. The first is that businessmen claim that the tax effects are no important, in order to extract more concessions from the government. The second, more likely, bias is that businesses may overstate the impact of the incentives to convince the government to retain such "effective" tax instruments.

A third method is to calculate what profits would have been had there been no investment incentive, and compare that measure with a "critical minimum rate of profit which firms require." If the profit rate without incentives is below that rate, but the profit rate with incentives is above that rate, the incentive package is judged to have been a success. Tax incentives in Pakistan (Azhar and Sharif, 1974; Kemal, 1975) and in Colombia (Billsborrow and Porter, 1972) were estimated to have increased investment by 20 percent, 30 percent, and 10 percent, respectively (the two Pakistan studies used different assumptions).

Despite the wide use of investment incentives, the evidence about their effectiveness is mixed. What, then, accounts for their widespread use in the face of such little evidence of their effectiveness? Shah and Toye consider a number of possible explanations. The first is that tax evasion and avoidance will allow firms to avoid paying taxes, so countries simply make de jure what is already de facto. However, it

seems hard to believe that large and visible corporate representatives of wealthy capitalist countries can evade tax collection as easily as the small merchant in the marketplace.

Another explanation suggests that competition among countries for foreign investment will keep taxes to a minimum. While this explanation may appear reasonable for smaller countries, it is less appealing for countries such as Nigeria or Indonesia that have large domestic economies.

Shah and Toye suggest finally that the nature of the incentives, and the fact that they coexist with quantity restrictions and licensing regulation, suggests that countries are not necessarily responding to outside demand pressures, but instead to the pressures of wealthy investors inside the country, who stand to benefit from the manipulation of quantity restrictions and other government constraints, while at the same time freeing companies from paying taxes.

In summary, the wide use of investment incentives appear to have some effect on business investment, but at a high cost of foregone revenue to companies who would have invested without incentives. The potential for transfer pricing and other financial contortions to shift company profits into branches that enjoy tax concessions is likely to reduce revenue as well. A better explanation for why investment incentives are so popular may come from industrialist political pressure groups who enjoy influence with legislators and governments.

Econometric evidence from the United States seems to suggest a pronounced role for tax policy in affecting the location of investment. Boskin and Gale (1986), updating and extending work by Hartman (1984),

suggest that the own-price elasticity of foreign investment in the U.S. is approximately 1.0, while the own-price elasticity of U.S. investment abroad is in excess of 1.0. There appears to be some stability in these estimates, despite the substantial fluctuation in direct foreign investment in the United States during the early 1980s.

To this point, the negative impact of taxation on investment has been emphasized. However, comparative data across countries provides a dissenting view. Figure 4 shows average investment/GDP ratios over the period 1970-80 compared to average tax effort (tax revenue/GDP) over the same period.[7] There is a strong positive correlation between investment ratios and the overall tax effort. This somewhat suprising result also emerges for private investment in an multivariate regression study of African countries between 1965-82 (Skinner, 1988) and in Koester and Kormendi (1988).

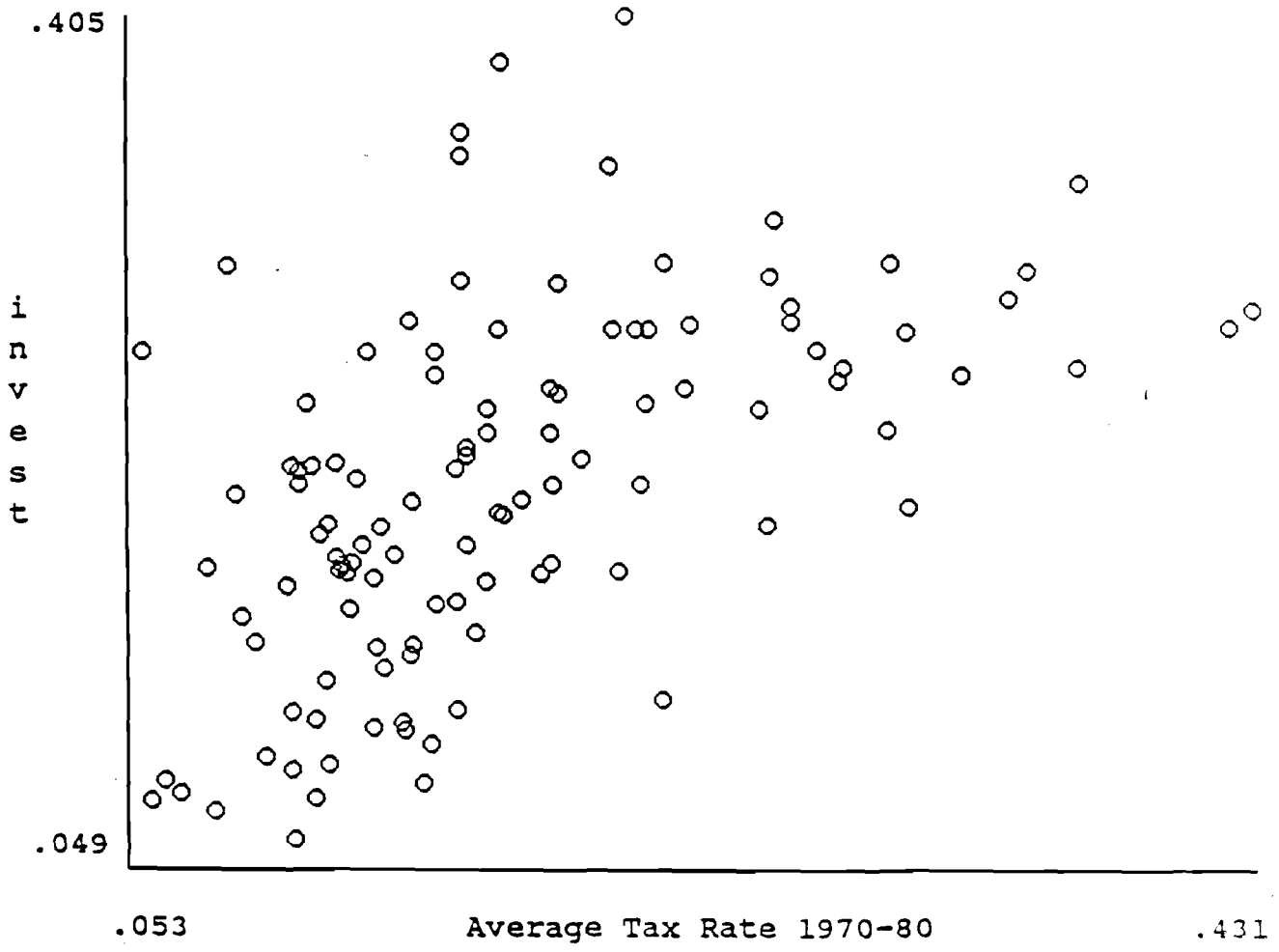
One interpretation of the correlation between taxation and gross investment would be that a large fraction of the investment is public, so that higher tax rates translate into higher investment rates. This finding would be in accordance with the traditional view that the government has a higher margainal propensity to save, so that higher taxes lead to higher overall savings rates. The positive correlation between private investment/GDP ratios and average tax rates in African

---

[7]The investment and GDP data come from Summers and Heston (1984), and are in real terms. The Summers and Heston series is calculated to provide internationally comparable measures of national accounts. See Lindauer (1987) for a comparison of these data with standard government statistics.

Note that only average tax rates are used here. While marginal tax rates would be more useful, they are not available for developing countries.

Figure 4: Investment and Tax Rates for 111 Countries: 1970-80



Note: Investment is defined to be the ratio of gross investment to GDP, averaged over 1970-80. Real data used from Summers and Heston (1984).

countries, however, is less consistent with this view. The positive correlation could also be consistent with a "crowding out" argument; that higher tax effort will be associated with lower deficits, so there will be less national saving absorbed by public debt creation. Whether crowding out is an important factor in incomplete financial markets of LDCs is not clear at this point. In summary, the positive correlation between the ratio of total investment to GDP, and average tax effort is something of a paradox.

Taxation of Wealth and Property

The taxation of property has been one of the earliest sources of government revenue. Governments have relied either on movable property, such as livestock, or on immovable property, such as land and structures. While these taxes may appear to be relatively non-distortionary, they can change property owners' behavior in such a way to reduce economic efficiency. Consider first the immovable property tax as administered in 17th century England. Rather than a lump sum tax on dwellings, the tax was based on the size of the house, as proxied by the number of hearths. The tax led to some hearths being walled up; Sir Peter Courtney in Cornwall walled up 6 of 21 hearths during 1662 (Stoate, 1981). In a comparison of hearth tax assessments between 1662 and 1664, fully 3.2 percent of all hearths in 1662 were reported walled up in 1664 (Stoate, 1981; pages xii-xiii).

There was apparently some confusion over whether the walled up fireplaces were restored after the tax collector left, or whether they were permanently walled up. A permanent reduction in the number of hearths corresponds to an efficiency loss from the tax. Residents gain

nothing from the hearths, nor does the government collect any revenue. Yet the original owner spent resources on building the now useless hearth. Alternatively, the hearths could be walled up temporarly, to coincide with the visit of the tax collector. While the hearths would be used (between tax collections), a substantial amount of wasted effort would go into bricking, and then bashing, the barrier. Another example of permanent efficiency cost were the houses built with fewer windows so as to avoid the window tax. The efficiency loss is the necessity of residents to live in dark houses, with no corresponding gain to the government.

There is also historical evidence that the taxation of movable property leads to a waste of resources. For example, Adam Smith finds that

> In the countries where the personal taille takes place, the farmer is commonly assessed in proportion to the stock which he appears to employ in cultivation. He is, upon this account, frequently afraid to have a good team of horses or oxen, but endeavours to cultivate with the meanest and most wretched instruments of husbandry that he can....The public, the farmer, the landlord, all suffer more or less by this degraded cultivation. [Smith, 1976: 383-384]

Since the 17th and 18th century, there has been a general decline in the use of wealth taxes. Especially in the case of land taxation, they have proved to be highly unpopular, and with the monetization of economies, governments have switched gratefully to sales, customs, and income taxation. There are only two real exceptions to the general decline in wealth taxation; the first is the urban property tax, and the second is the property transfer tax. Urban property taxation, while

struggling with assessment lags and evasion, has maintained a strong role in supporting local finances.

The taxation of property transfer occurs only when deeds or titles are transfered and recorded by goverment agencies. It is economically less efficient than the straight taxation of property, since it restricts the mobility of property by "locking in" ownership. Transfer taxation is often justified as taxing wealthy landowners who are buying additional land, but the tax may just as well cause a fall in the net sale price of the potentially distressed landowner who is forced to sell by economic necessity. The transfer tax ranges in most countries from 3 percent to 15 percent; in one country (Bangladesh), it raises more in revenue than a tax assessed on all land, despite the fact that land transfers are quite infrequent. One reason why the property transfer tax may enjoy increasing popularity is its potential for maintaining revenue collection in the face of inflation. While property tax assessments typically lag far behind market value in countries with high inflation rates, declared property transfer prices will keep up with, or even surpass, inflation rates. Furthermore, the administrative costs of the tax are very low, since the tax must be paid before the deed is transferred to the new owner.

Tax Administration, Compliance Costs, and Smuggling

Historical examples of tax avoidance and administrative costs are numerous. In 17th century France, the costs of administration were far greater than the net revenue to the government; of the 19 million livres expected from the taille (a lump sum or poll tax), only 6 million were delivered to the central treasury. The remainder was consumed by

administrators and local tax collectors (Webber and Wildavsky, 1986, p. 278). By the same token, the zamindars, or tax "farmers", in India had by 1900 increased revenue from farmers to Rp. 165 million, but turned over to the British government only Rp. 39 million (Hossain, Rahman, and Akash, 1985). More recently, the Bangladesh Land Development Tax has reported administrative costs in excess of 66 percent of total tax revenue. One reason why the administrative costs of these taxes have been so high is that a large fraction of the population must be induced to pay very small payments, leading to a great deal of administrative effort for each rupee or taka.

Trade taxation is usually the tax instrument exhibiting the lowest collection cost. Adam Smith reported average costs of slightly over 10 percent of revenue, but since that time collection costs have fallen to an average of 1 to 3 percent, even in less developed countries.

Aside from the direct administrative costs, taxpayers often reduce tax payments by evading or misrepresenting the value on which their tax is assessed. During the 13th century, movable property taxes in England were occasionally assessed for to pay ransoms for captured kings, provide a dowry for princesses, or to finance holy crusades. During this time, English taxpayers were not slow to discover the benefits of underassessing property:

> We have lately heard that the four jurors ... are violating their oaths by false valuations, namely, they generally value an ox at five shillings, when it is worth ten shillings or even more; a pig which is worth two are three shillings, they value at 6d.; ... we shall not recieve half of the thirtieth granted to us so generously by the magnates and others of our realm. [Close rolls, 1234-1237, p. 569; from Mitchell (1970)]

What are the costs involved here? There are clearly administrative problems, but if every juror persists in undervaluing the property, then the target revenue could just as well be raised by doubling the tax rate. Yet assessors could compensate for the doubling by undervaluing to an even greater extent. However, variations in assessment practices will lead to inequities in tax collection as well.

An additional cost of tax administration is tax compliance. Even if taxpayers are perfectly honest, they must still spend time and money on keeping records for tax collection, and on preparing their tax return. In some countries, this compliance cost is reflected in administrative costs, since the tax officials will also fill out tax returns. However, in most countries these are costs borne entirely by the taxpayers. Slemrod and Sorum (1984), for example, have estimated the aggregate cost of tax compliance was between $17 and $27 billion dollars in the United States during 1982. This translates to more than 5 percent of total taxes collected.

A further cost of taxation is the uncertainty caused by a change in the tax regime. For example, following the 1981 Economic Recovery Act in the U.S., companies were allowed to trade tax credits. This "safe harbor leasing" provision was controversial, and it was uncertain whether it would be rescinded. Fear of the tax change lead to sales of the tax benefits at less than half their actual value, because, as one corporation chairman put it, he feared the "risk of losing the tax benefits through a change in the tax law or other contingencies." (Skinner, 1986).

More generally, uncertainty about future tax rates often leads to a

welfare loss. If, for example, the government sets new taxes that provide investment incentives, countries may be unwilling to invest because they are not convinced that future tax rates will not increase. In this situation, the government treasury loses revenue without associated gains in investment. In summary, repeated tax reform may be viewed not as a successive approximation to the optimal tax system, but as a signal that new tax changes are forecast for the future.

On the Marginal Cost of Taxation

The previous subsections have attempted to provide heuristic illustrations of the social cost of taxation. For the purposes of tax reform, however, one often focuses on marginal tax changes. As was illustrated in Section II, the marginal cost of increasing revenue from an existing tax is generally higher than the overall (or average) tax burden. It is therefore useful to briefly review the evidence on the marginal cost of raising (or benefits of cutting) taxes, since these measures are important for making policy judgements.

The literature on the excess burden of taxation has, for the most part, used models most appropriate for developed countries. The focus of Stuart (1984), Ballard, Shoven, and Whalley (1985b), Browning (1976, 1987), and others has been to calculate the marginal excess burden of taxation in the United States in competitive models with generally free factor flows and prices which adjust to the different tax rates.

Among the first studies of marginal excess burden was Browning (1976). He estimated that the excess burden was between 9 and 16 cents per dollar of revenue collected. Later researchers found measures larger in magnitude; using a two-sector general equilibrium model of the

United States, Stuart (1984) found that the marginal excess burden of a labor income tax was between 7 and 50 cents, depending in part on how the revenue was used. Similarly, a computable dynamic general equilibrium study by Ballard, Shoven, and Whalley (1985) suggested that the excess burden was between 25 and 50 cents per dollar. One might think that the difference between Browning and later studies is due to the later studies allowing for general equilibrium effects. However, Browning (1987) argues that most of the difference in the marginal excess burden measures is caused by different assumptions about the correct empirical parameters of the model. For example, in a simple partial equilibrium model, he showed that the marginal excess burden (in the case where earnings are allowed to decline) could range from 11 cents per dollar to 3 dollars, depending on the labor supply elasticity (either .2 or .4); the progressivity of the tax (the ratio of marginal to average taxes being either .8 or 2) and the tax rate (.38 or .48). Browning concluded that most of the variation in marginal excess burden measures occured because of differences in empirical parameters.

As Stuart (1984) has shown, another important factor that affects the marginal excess burden is how the revenue is used. If, for example, the income is redistributed, then compensated elasticities are used to calculate excess burden. These are generally higher than uncompensated elasticities, which are the appropriate measure for calculating excess burden when the tax is used for government services which do not substitute for private services (see Ballard, 1987).

It is difficult to talk about "the" marginal excess burden, since the efficiency cost will depend crucially on what tax instrument is

changed (Ballard, Shoven, and Whalley, 1985). Fullerton and Henderson (1987), for example, examine the marginal excess burden of different taxes on capital. They find some provisions of the tax law, such as the investment tax credit, have negative excess burden, while other provisions have high marginal excess burdens. In the same way, Ahmed and Stern (1984) examine different commodity taxes in India, and determine to a first-order approximation which commodity-specific tax has the highest marginal cost to society. They also allow for distributional considerations to enter the calculations.

The previous section has attempted to document the incentive effects of taxation. Factors such as efficiency costs and compliance costs are difficult to measure directly, although one might expect that ultimately, they will be reflected in national income. It is to this topic that we turn next.

IV. Output Growth and Taxation

There are two methods for estimating the efficiency costs of taxation. The first is to develop a theoretical model, and calculate efficiency costs by plugging in empirical parameters from a variety of studies. The second, which is followed below, estimates what is essentially a reduced form equation of taxation, fiscal policy, and GDP. The advantage of this method is that it is a direct measure of efficiency costs which reflects parameters (such as the dynamic effects of tax policy) which are generally difficult to model properly in theoretical models. In addition, the estimates derived below are readily understandable to policy makers — do taxes affect the level, or

the growth rate, in national output? There are shortcomings to this direct estimation of taxation and output; the potential for mismeasured data, unobservable factors affecting both tax rates and output, and endogeneity. These shortcomings are discussed in more detail below.

While this survey is concerned primarly with the excess burden of taxation, the models discussed below can be used to address a broader issue, which is whether the benefits of government spending justify the efficiency costs of the taxes necessary to finance it.[8] That is, taxes may be distortionary, but the relevent policy question is whether the marginal benefits of tax-financed government expenditures exceed the marginal distortionary costs of collecting the revenue.

The review of the evidence that follows will both summarize existing literature, and provide new evidence from a complete sample of 111 countries using variables on output, investment, and government consumption. The data are derived from Summers and Heston (1984), the Government Financial Statistics (IMF, 1986) and other sources, and are discussed in more detail in Engen and Skinner (1988). The Summers and Heston data have been converted to internationally comparable price levels, and have been widely used in cross-country studies. I begin first with ad-hoc linear models of taxation and national output, and of government spending and national output. Second, Ram's model of government spending, and Engen and Skinner's model which includes both

[8]There are sources of government revenues other than taxes, but I would argue that taxation is the only feasible long-term method of financing. Debt can be used in the short run, but taxes must be raised in the future to pay back the debt. While the country has the option to default (or inflate away the value of the debt), it is unlikely to find new sources of borrowed money after doing so.

government spending and taxation, is presented. Finally, potential shortcomings of these cross-country estimation models are discussed.

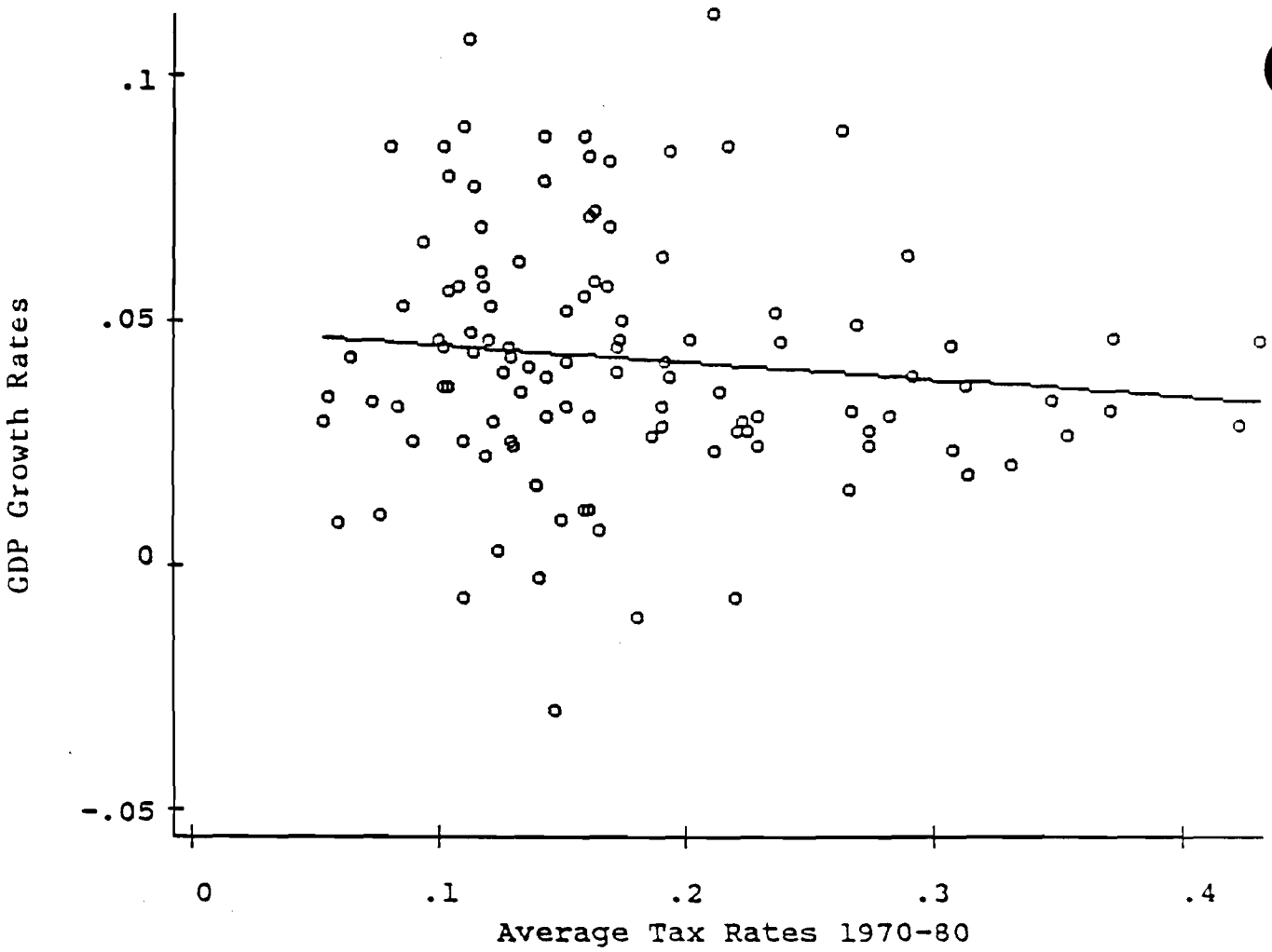
The study by Marsden (1983) was among the first to test the hypothesis that taxes should affect output growth rates.[9] He matched 10 high tax countries, such as Zambia, Britain, Chile, and Zaire, with 10 low tax countries such as Singapore, Korea, Uruguay, and Japan. The country pairs were chosen on the basis of "similar per capita incomes but contrasting tax levels," and the difference in growth rates for the two sets of countries were then calculated. Countries with high tax rates (defined to be the ratio of tax revenue to GDP) experienced a lower average growth rate than those with low tax rates. Marsden's results imply that "an increase of one percentage point in the tax/GDP ratio decreases the rate of economic growth by 0.36 percent (sic) points." Translating from growth rates to differences in per capita income, Marsden's coefficient implies that a 3 percent increase in the tax to GDP ratio will reduce the level of GDP 20 years in the future by 20 percentage points $(1 - .036 \times 3)^{20}$.

One shortcoming with this study is the lack of a theoretical framework, a problem that it shares with a number of other studies. For example, as is discussed below, standard neoclassical growth theory predicts that tax rates affect the level, but not the growth rate of GDP in steady-state equilibrium. Second, the choice of the 20 country

---

[9]The earlier literature on taxation and output focused on the opposite question — what is the "appropriate" tax effort for a country in a particular stage of development. The direction of causation is modeled in reverse; GDP, the independent exogenous variable, affects the choice of tax effort, the dependent variable (Newlyn, 1985; Tanzi, 1987).

Figure 5: GDP Growth Rates and Average Tax Rates: 1970-80



sample is not random. A better test of the hypothesis that taxation affects output growth is to examine the entire sample of countries for which data are available. A scatter diagram is presented in Figure 5 which shows real GDP growth as measured by Summers and Heston for the period 1970–1980, compared to the average tax rate during that period.[10] There is no obvious simple correlation between tax rates and GDP growth rates; the slope of the regression line (shown in the graph) is –.036 (so that a one percentage point increase in the tax effort is predicted to reduce output growth by .036 percentage points) and is insignificant.

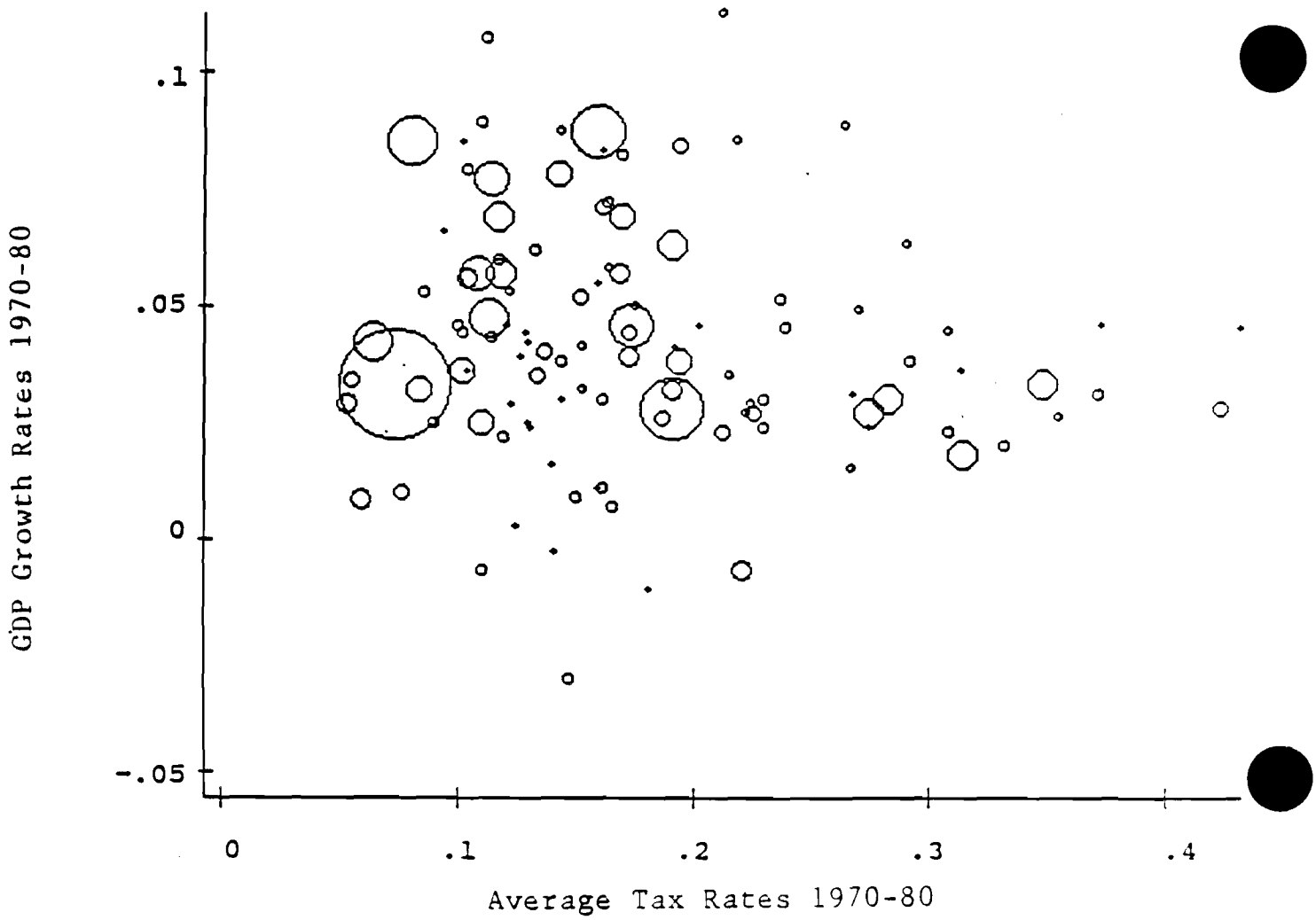
One potential shortcoming with Figure 5 is that all countries are weighted equally; if small countries are "outliers", they may mask the true correlation between output growth rates and taxation. To correct for this, Figure 6 presents the correlation between taxation and output growth weighted by the (normalized) country population. Again, no clear correlation arises. Finally, Marsden (1983) in his matching technique, attempts to correct for differences in per capita income. A regression which controls for per capita income levels is as follows:

$$\dot{Y} = \underset{(7.87)}{0.046} + \underset{(0.18)}{0.007}\times Tax - \underset{(1.61)}{0.316}\times Y \qquad R^2 = .004 \quad N = 111$$

where $\dot{Y}$ (in percentages) and Y (in thousands of US dollars) are the growth rate, and level, of GDP, respectively, and absolute values of t–statistics are in parentheses. Given that the coefficient on Tax (the tax effort) is insignificant, there does not seem to be a simple

[10]For some countries, tax rates (and output growth rates) were averaged over 8 or 9 years owing to the lack of data.

Figure 6: GDP Growth Rates and Average Tax Rates, Weighted by Population: 1970-80



correlation between growth rates and taxation (also see Koester and Kormendi, 1988).

The impact of taxation on output growth rates is mixed conditional on a larger number of variables in cross-country regressions. For example, Martin and Fardmanesh, 1987 (their regression D, p. 18) find that taxation has little effect on growth rates, conditional on accumulated investment, population growth, and government spending. Koester and Kormendi (1988) similarly find little evidence that taxation affects growth rates. However, Landau (1986) estimates a negative conditional correlation, as does Engen and Skinner (1988) and Skinner (1988). To illustrate this finding, consider again the full sample of 111 countries during the period 1970-80. A simple regression of output growth and taxation which conditions on I/Y, the accumulated change in gross investment over the 11 year period, $\dot{L}$, the percentage change in population, and G/Y, government spending as a fraction of (initial) Y, is estimated to be

$$\dot{Y} = \underset{(1.53)}{0.019} + \underset{(4.64)}{0.160}\times I/Y + \underset{(3.10)}{0.895}\times\dot{L} - \underset{(2.10)}{0.098}\times G/Y - \underset{(1.67)}{0.062}\times Tax$$

$$R^2 = .240$$

The coefficient on average tax rates is significant at the 10 percent level. It is interesting to note that when the model is specified somewhat differently — substituting the change in G divided by Y for G/Y, as suggested by Ram (1986) — the tax coefficient rises to -.082, with a signficance level of 2.51.

Koester and Kormendi (1988) used country specific regressions to

calculate marginal tax rates. They ran the regression

$$Tax_t = a_0 + a_1 GDP_t$$

for each country and interpreted a_1 to be the marginal tax rate. This is an ingenious method for measuring marginal tax rates from a minimum source of data, but it will also pick up discretionary changes in the tax code. Strictly speaking, such changes would not measure marginal tax "wedges" since they reflect inframarginal revenue collected on an existing tax base.[11] However, the authors found that the ranking of countries according to their estimated marginal tax measures correlated well with a ranking based on the statutory marginal tax rates.

As noted earlier, they found little impact of marginal rates on output growth, although in cross-sectional regressions on the level of output, they found that the average tax rate had a positive effect, and the marginal tax rate a negative effect on output, with strong significance for each coefficient. They interpreted the positive coefficient on average taxes to proxy for a demand effect (larger countries tax more), and the negative coefficient on marginal tax rates to be the traditional distortionary effect.

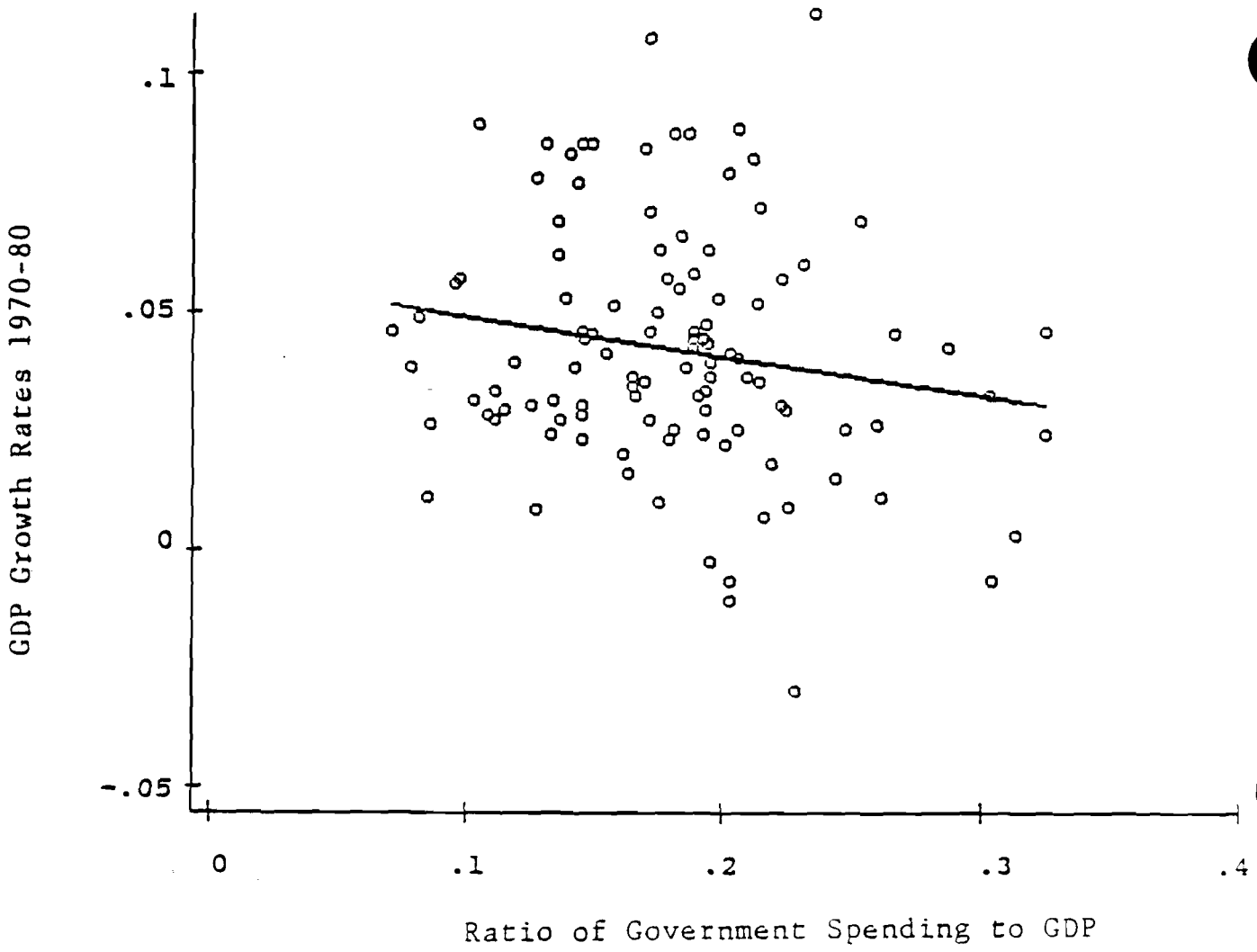
One of the difficulties in arriving at a conclusion about the impact of taxation on output is the absence of an a priori model appropriate for estimating the effect of taxes on output. One attempt to develop a theoretical model is described in Skinner (1988) and Engen and Skinner (1988). While taxes have no effect on the steady state

[11]If a country has two sectors, and tax rates in one sector are higher than in the other, then if the heavily taxed sector grows faster than the other, the "marginal" tax as measured by this regression method will be higher than the average tax, even when the sector-specific taxes are held constant.

growth path in neoclassical models (since growth rates are determined by factors such as population growth and technological change), taxes will affect growth rates along a transition path. Consider a simplified model of the economy in which there are two sectors in the economy, one which is heavily taxed (e.g, manufacturing and some large corporations in developing countries) and one which is not (small-scale agriculture, the underground economy, etc.). Taxes will tend to induce new economic inputs, such as investment and labor supply, to flow into the low-tax — and less productive — sectors. The introduction of taxation therefore reduces the overall marginal productivity of labor and capital, and thereby lowers the country growth rate conditional on the observed growth in labor and capital (this abstracts from secondary effects of taxes on the supply of labor and capital). Regression results using a sample of African countries (Skinner, 1988) and a more complete sample of 111 countries (Engen and Skinner, 1988) found a significant negative effect of taxation on the marginal product of capital and labor.

There has been a substantial amount of empirical research using cross-country data to test the impact of government spending on output growth rates. Landau (1983; 1986) found a strong negative impact of government spending (and more specifically, government consumption excluding military and educational expenditures) on output growth rates (also see Martin and Fardmanesh, 1987). To test this proposition using the data on 111 countries mentioned above, consider a simple graph which compares the average ratio of government consumption on goods and services to GDP during 1970-80 with GDP growth rates during the same period (Figure 7). The regression line (shown on the graph) is

Figure 7: GDP Growth Rates and Government Spending: 1970-80



estimated to be

$$\dot{Y} = \underset{(6.68)}{0.057} - \underset{(1.84)}{0.084}(G/Y) \qquad R^2 = .021$$

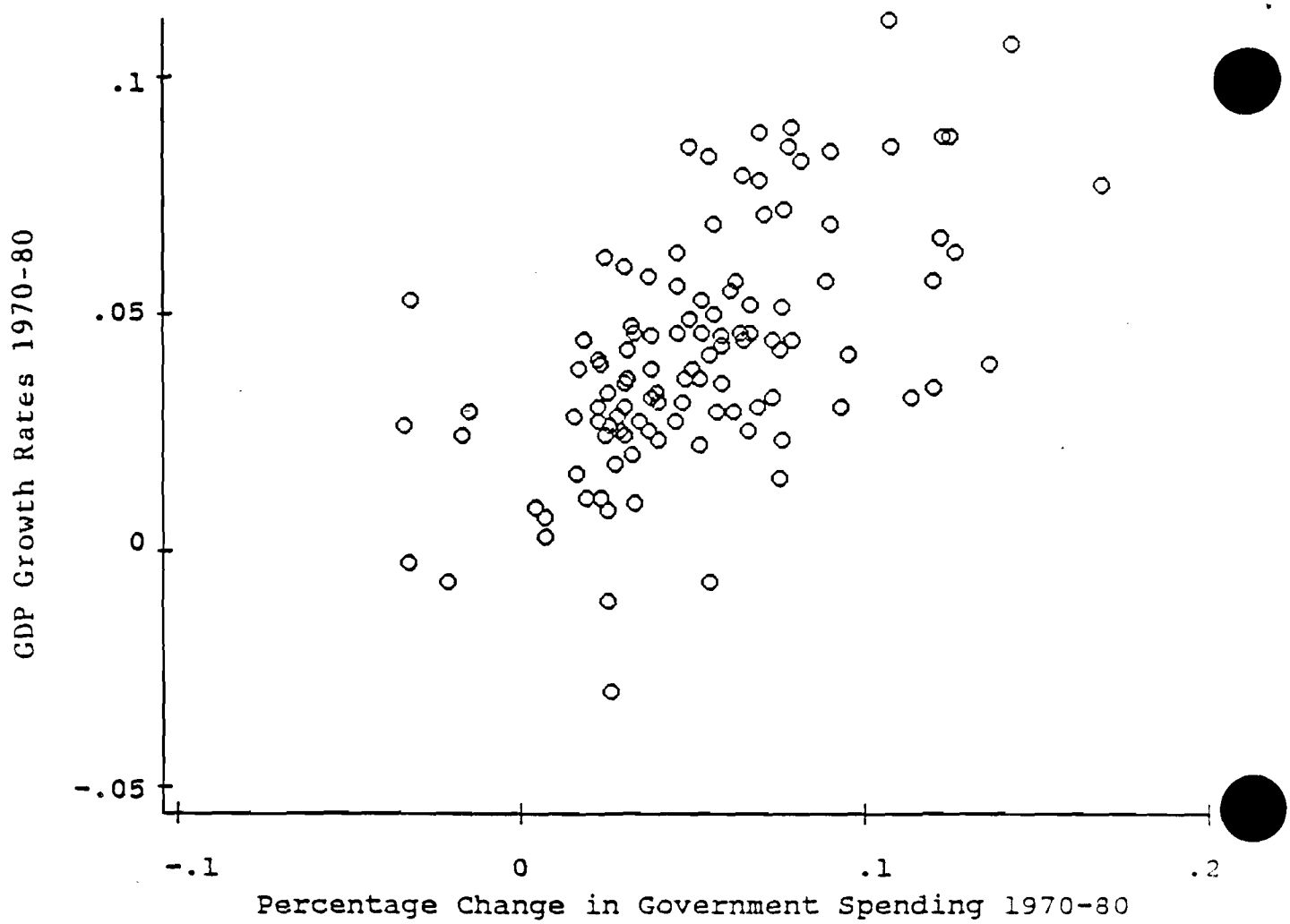
That is, the correlation is only moderate. However, when factors such as investment and population growth rates are also included, the results are somewhat stronger:

$$\dot{Y} = \underset{(1.00)}{0.012} + \underset{(4.32)}{0.132}(I/Y) + \underset{(4.69)}{1.154}(\dot{L}) - \underset{(2.61)}{0.118}(G/Y) \qquad R^2 = .227$$

That is, the coefficient on G/Y is negative and strongly significant. Ram (1986) criticized the functional form used by Landau. Essentially, the point is that if Y is a function of G, then $\dot{Y}$ — the percentage change in Y — should be a function of the change in G, and not the level of G. For this reason, Ram (1986a) developed a model of public and private output which tests the impact of the growth in government spending with the growth in output. He finds a strong positive effect of government spending, both using cross-sectional analysis and time-series regressions for each country. Ram's findings are strongly confirmed using my sample of 111 countries; the percentage growth rate in government spending is contrasted with output growth in Figure 8; the positive correlation coefficient is highly significant in a bivariate regression. Ram interprets this correlation to mean that government inputs of capital and labor are often more productive, and may confer positive externalities on the private sector.

While Ram was the first to provide a theoretical foundation for his econometric estimation, his analysis suffers from two shortcomings.

Figure 8: GDP Growth Rates and Percentage Growth in Government Spending 1970-80



First, his theoretical model expresses G as the contribution of government capital and labor to value added in GDP. However, the G that must be used by researchers is expenditures on goods and services. Hence measured G is a use, and not a source of income; the only measured contribution of government to GDP is through its payroll.

Second, there is the potential for endogeneity. Countries which grow quickly may also be likely to expand their government services. A regression of the growth in government spending on output growth may simply reflect a high income elasticity of government spending. Ram (1986b) suggests that this endogeneity is not serious; a related paper (Ram, 1987) argues that there is little evidence from cross-country comparisons to support the view that government consumption is positively related to per capita income (also see Lindauer, 1987). Finally, Engen and Skinner (1988) attempt to control for this endogeneity in a simultaneous equations model of government spending and output growth.

What do these studies imply about the relative costs and benefits of tax-financed government spending? Martin and Fardmanesh (1987) found an insignificant but positive effect of taxes on output growth rates, but government spending has a negative and significant impact on GDP growth (Regression D, p.18). While the authors interpret this to mean that reducing deficits will spur output growth, the regression suggests that cutting government spending will have a greater impact on economic growth than raising taxes.

Preliminary results from Engen and Skinner (1988) suggests that a long-run tax-financed increase in the share of government spending leave

output growth rates essentially unchanged. This result could be interpreted as meaning that there are no gains to increasing government spending. It could also be interpreted to mean that governments are now at a social optimum; the marginal benefits of government spending are exactly offset by the marginal costs of taxation.[12]

There are some general shortcomings of cross-sectional studies. First, it is unlikely that the coefficients estimated will be similar across countries; the marginal product (in elasticity form) of a one percentage point increase in labor supply may be different for different countries.[13] Another problem is that other, unobservable factors, such as a well administered civil service, could encourage growth rates in output, lead to efficient collection of taxes, and provide government services at low cost. In this case, a regression would find a positive coefficient on taxes and a negative coefficient on government spending, even if there were no causal relationship among the three factors. Finally, the endogeneity problem (as discussed above) can lead to biased regression coefficients.

In summary, whether one thinks that government spending contributes to, or subtracts from, output growth depends on the model that one has in mind. GDP growth rates are positively correlated with the growth in G, but negatively correlated with the level of G. The impact of taxes on output growth rates is negative in some studies, but not signficantly

---

[12]I am indebted to Z. Shalizi for this point.

[13]When coefficients differ across countries heteroscedasticity results. The OLS estimate of the average coefficient value across countries will be unbiased, although the standard errors will be biased (Engen and Skinner, 1988).

different from zero in others.

V. Conclusion

The evidence on how taxes affect economic behavior is mixed. The likelihood of a clear "event study" which provides readily apparent evidence that taxes do, or do not, affect behavior is quite low. Natural experiments such as IRAs in the U.S., and the dropping of tea duties in England during the 18th Century, are valuable, but only exist for a limited number of cases. In general, economists have come to rely on more complicated econometric and simulation models which correct for a large number of factors. The sensitivity of the results to equation or parameter specification, and the abstractness of the efficiency costs measured in such models can reduce their effectiveness in policy analysis. This paper has attempted to pick out examples of how taxes affect economic behavior, and to describe in more detail why such taxes cause a reduction in national welfare. A more direct measure of welfare cost was also attempted; to measure the effect of fiscal policy on output growth. While there is some evidence that taxation and government spending may reduce output growth, the evidence is not overwhelming. In particular, there must be greater agreement among researchers about the theoretical paths by which government fiscal policy affects national output.

Bibliography

Auerbach, Alan, Laurence Kotlikoff, and Jonathan Skinner, "The Efficiency Gains from Dynamic Tax Reform", International Economic Review, (February 1983).

Azhar, B. A., and S. M. Sharif, "The Effects of Tax Holiday on Investment Decisions: An Empirical Analysis," Pakistan Development Review (1974) pp.409-32.

Bolnick, Bruce, "Demographic Effects on Tax Ratios in Developing Economies," Journal of Development Economics 5 (1978) pp. 283-306.

Boskin, Michael J., "Taxation, Saving, and the Rate of Interest," Journal of Political Economy (April 1978): pp. S3-S27.

Boskin, Michael J., and William G. Gale, "New Results on the Effects of Tax Policy on the International Location of Investment," NBER Working Paper # 1862 (March 1986).

Ballard, Charles L., "Marginal Welfare Cost Calculations," mimeo (1987).

Ballard, Charles L., D. Fullerton, J.B. Shoven, and J. Whalley, A General Equilibrium Model for Tax Policy Evaluation. Chicago: University of Chicago Press (1985).

Billsborrow, R. E., and R.C. Porter, "The Effects of Tax Exemptions on Investment by Industrial Firms in Colombia," Weltwirtschaftliches Archiv (1972): pp. 396-425.

Brent, Robert J., "Lagged Reactions in Short-Run Estimates of Tax Shifting of Company Income and Sales Taxes in Kenya," Journal of Development Economics 20 (1986): pp. 15-32.

Browning, Edgar K., "The Marginal Cost of Public Funds," Journal of Political Economy (April 1976): pp. 283-98.

Browning, Edgar K. "On the Marginal Welfare Cost of Taxation," American Economic Review (March 1987): pp. 11-23.

Chamley, Christophe, "Taxation in Dynamic Economies: Some Problems and Methods," mimeo, World Bank, CPDRM (October 1983).

Chamley, Christophe, "The Welfare Cost of Capital Income Taxation in a Growing Economy," Journal of Political Economy (June 1981): pp. 468-96.

Chen-Young, P. A., "A Study of Tax Incentives in Jamaica,"

National Tax Journal (1967): pp. 292-308.

Dahl, Henrik, and Pradeep K. Mitra, "Taxes, Tariffs and Trade in an Industrializing Low Income Country: Simulating Policy Changes in India, 1973-74 - 1983-84," (November 1986) mimeo, World Bank.

deMelo, J., "Estimating the Costs of Protection: A General Equilibrium Approach", Quarterly Journal of Economics (1978), pp. 209-226.

Engen, Eric, and Jonathan Skinner, "Government Size, Economic Growth, and Taxation," mimeo (May 1988).

Evans, Owen, "Tax Policy, The Interest Elasticity of Saving, and Capital Accumulation," American Economic Review (June 1983): pp. 398-410.

Feder, Gershon, "On Exports and Economic Growth", Journal of Development Economics 12 (1982) pp. 59-73.

Feldstein, Martin, and Horioka, Charles, "Domestic Saving and International Capital Mobility," Economic Journal (June 1980): pp. 314-329.

Fields, Gary, "Public Policy and the Labor Market in Developing Countries," in Newbery and Stern (eds.) The Theory of Taxation for Developing Countries. New York: Oxford University Press and the World Bank (1987).

Frankel, Jacob, and Assaf Razin, "Fiscal Policy and the World Economy. Cambridge, MA: MIT Press (1988).

Fullerton, Don, "On the Possibility of an Inverse Relationship Between Tax Rates and Government Revenues," Journal of Public Economics (October 1982).

Fullerton, Don, and Y. K. Henderson, "The Marginal Excess Burden of Different Capital Tax Instruments," NBER Working Paper 2353 (September 1987).

Harris, J. R., and M. P. Todaro, "Migration, Unemployment, and Development: A Two-Sector Analysis," American Economic Review (March 1970): pp. 126-42.

Hartman, David, "Tax Policy and Foreign Direct Investment in the United States," National Tax Journal (1984): pp. 475-87.

Henderson, J.M., "Optimal Factor Allocation for Thirteen Countries", in A.O. Krueger, ed. Trade and Employment in Developing Countries (2). Chicago: University of Chicago Press (1982).

Hossain, Hossain, Atiur Rahman, and M. M. Akash, "Agricultural Taxation in Bangladesh: Potential and Policies," Bangladesh Institute of Development Studies (October 1985).

Howrey, Philip, and Saul Hymans, "The Measurement and Determination of LoanableFunds Savings," Brookings Papers on Economic Activity (1978): pp. 655-85.

Kemal, A. R., "The Effect of Tax Holiday on Investment Decisions: Some Comments," Pakistan Development Review (1975): pp. 245-48.

Killingsworth, Mark, Labour Supply. Cambridge: Cambridge University Press (1983).

Koester, Reinhard, and Roger Kormendi, "Taxation, Aggregate Activity and Economic Growth: Cross-Country Evidence on Some Supply-Side Hypotheses," Economic Inquiry (forthcoming).

Kotlikoff, Laurence, "Social Security: Time to Reform," in M Boskin (ed.) Federal Tax Reform: Myths and Realities. Institute for Contemporary Studies (1978).

Kotlikoff, Laurence, "Taxation and Savings: A Neoclassical Perspective," Journal of Economic Literature (December 1984): pp. 1576-1629.

Krueger, Anne O., "Trade Policies in Developing Countries",in R. W. Jones and P. B. Kenen, eds. Handbook of International Economics, Elsevier Science Publishing (1984).

Landau, Daniel, "Government Expenditures and Economic Growth: A Cross-Country Study," Southern Economic Journal 49 (January 1983): pp. 783-92.

Landau, Daniel, "Government and Economic Growth in the Less Developed Countries: An Empirical Study for 1960-80," Economic Development and Cultural Change (October 1986): pp. 35-75.

Lindauer, David L., "The Size and Growth of Government Expenditures," WDR (1988) Background Paper (1987).

Lindsey, Lawrence, "Capital Gains: Rates Realization and Revenue," Journal of Public Economics (1987).

Lucas, Robert E., "On the Mechanics of Economic Development", mimeo, University of Chicago (1985).

Manas-Anton, Luis A., "Structure of Taxation and Growth in Developing Economies", Mimeo, IMF Fiscal Affairs Department (September, 1985).

Marsden, Keith, "Links Between Taxes and Economic Growth: Some

Empirical Evidence," World Bank Staff Working Paper #605, (August, 1983).

Martin, Ricardo and Moshen Fardmanesh, "Fiscal Variables and Growth: A Cross Sectional Analysis," mimeo (1987).

Mathias, P., and P. O'Brien, "Taxation in Britain and France," Journal of European Economic History 5.

McCulloch, John R. A Treatise on the Principles and Practical Influence of Taxation and the Funding System. London: Longman, Brown, Green, and Longmans (1845).

Mikesell, Raymond F., and James E. Zinser, "The Nature of the Savings Function in Developing Countries: A Survey of the Theoretical and Empirical Literature," Journal of Economic Literature (March 1973): pp. 1-26.

Mitchell, Sidney K., Taxation in Medieval England. Archon Books (1970).

Mutti, John, and Grubert, Harry, "The Taxation of Capital Income in an Open Economy: The Importance of Residence-Nonresident Tax Treatment," Journal of Public Economics (August 1985): pp. 291-309.

Newlyn, W.T., "Measuring Tax Effort in Developing Countries," Journal of Development Studies (April 1985): pp. 390-405.

Ram, Rati, "Government Size and Economic Growth: A New Framework and Some Evidence from CrossSection and TimeSeries Data," American Economic Review 76 (March 1986a) p. 191-203.

Ram, Rati, "Causality Between Income and Government Expenditure: A Broad International Perspective," Public Finance/ Finances Publiques (1986b) pp. 393-413.

Ram, Rati, "Wagner's Hypothesis in TimeSeries and CrossSection Perspectives: Evidence from 'Real' Data for 115 Countries," Review of Economics and Statistics (May 1987): pp. 194-204.

Robinson, Sherman, "Sources of Growth in Less Developed Countries: A Cross-Section Study", Quarterly Journal of Economics (1971) pp. 391-408.

Sabine, B. E. V., A Short History of Taxation. London: Butterworths (1980).

Shah, S. M. S., and J. F. J. Toye, "Fiscal Incentives for Firms in Some Developing Countries: Survey and Critique," in Toye (ed.). Taxation and Economic Development. London: Frank Cass (1980).

Shoven, John B., and John Whalley, "Applied GeneralEquilibrium Models of Taxation and International Trade," Journal of Economic Literature (September 1984): pp. 1007-1051.

Skinner, Jonathan, "The Welfare Cost of Uncertain Tax Policy," NBER Working Paper No. 1947 (June 1986).

Skinner, Jonathan, "Taxation and Output Growth: Evidence From African Countries," NBER Working Paper No. 2335 (August 1987).

Skinner, Jonathan, "Risky Income, Precautionary Savings, and Life Cycle Consumption," Journal of Monetary Economics (1988).

Slemrod, Joel, and Nikki Sorum, "The Compliance Cost of the Individual Income Tax System," National Tax Journal (December 1984): pp. 461-474.

Smith, Adam. The Wealth of Nations. Chicago: University of Chicago Press (1976).

Standford, G. R., and J.B. Christensen, Tax Incentives for Industry in Mexico. Harvard Law School (1959).

Stewart, Douglas B. and Yiannis P. Venieris, "Sociopolitical Instability and the Behavior of Savings in Less-Developed Countries", Review of Economics and Statistics, (November, 1985), pp. 557-63.

Stoate, T. L., Cornwall Hearth and Poll Taxes 1660-1664. Privately Printed by T. L. Stoate, Lower Court, Almondsbury, Bristol.

Summers, Robert, and Alan Heston, "Improved International Comparisons of Real Product and Its Composition," Review of Income and Wealth (June 1984): pp. 207-262.

Tanzi, Vito, "Quantitative Characteristics of the Tax Systems of Developing Countries," in D. Newberry and N. Stern (eds.) The Theory of Taxation for Developing Countries. New York: Oxford University Press (1987).

Venti, Stephen F., and David A. Wise, "Have IRAs Increased U.S. Saving?: Evidence From Consumer Expenditures Surveys," NBER Working Paper No. 2217 (April 1987).

Webber, Carolyn, and Aaron Wildavsky. A History of Taxation and Expenditure in the Western World. New York: Simon and Schuster (1986).

World Bank, World Tables (3rd ed.), Baltimore: Johns Hopkins University Press (1984).

World Bank, The World Development Report. New York: The Oxford University Press (1986).

Lessons from Post-War Experiences with Tax Reform in Developing Countries

by

Malcolm Gillis

January 1988

Revised DRAFT

Not For Quotation

Jan. 6, 1987

DISCUSSION DRAFT #2

Lessons From Post-War Experience With Tax Reform in Developing Countries*

Malcolm Gillis

I. Introduction

Dozens of developing nations have attempted major tax reform since 1945. A few reform efforts encountered some degree of success; many were failures. This paper sifts through a number of post-war tax reform experiences in search of lessons that may be of value to governments considering major tax reform over the near future.

A. Taxation and Resource Transfer

Taxation is but one of three methods of modern public sector finance; inflation and borrowing are the others. In recent years, latitude for use of the latter two methods has shrunk markedly for most developing countries. Inflation has become increasingly suspect as a method of finance, owing to wider recognition of its corrosive effects not only upon growth and development but upon income distribution. In the wake of the international debt crisis, few new resources have been available from external borrowing since the early eighties, and the nature of money and capital markets in most

*The author acknowledges with thanks helpful comments on earlier drafts by the following: Anne Krueger, Edward Tower, Charles McLure, Roy Bahl, Bill Ascher, Carl Shoup and Wayne Thirsk.

developing countries precludes extensive use of domestic borrowing for finance of government activity. Governments in the eighties have increasingly turned to the tax system, both for incremental finance and to help supplant resources formerly raised through inflation and or borrowing. Few tax systems in place have proved capable of bearing the additional strain. Those governments that have been unwilling or unable to reduce spending have been forced to consider major adjustments in taxes as the only means for attaining or restoring orderly mobili;zation of resources.

Short-run revenue considerations, then, have loomed large in recent attempts at tax reform in developing countries, as many governments have thereby sought to avert fiscal crisis. But postwar history also provides many examples of tax reforms geared to longer-term objectives. In these cases, focus has been upon rationalization and simplification of the tax system in order to remove tax barriers to efficient resource allocation and to foster economic growth, and/or to reduce maldistribution of income. Particularly within the last decade, there have been several instances in which governments have mounted major tax reform efforts absent short-term fiscal crisis. Tax reform programs have been devised to promote longer term objectives not only in the infrequent number of cases where highly indebted governments have undertaken sizeable reductions in expenditure to maintain external creditworthiness, but also in the even rarer instances wherein maintainance of economic stability has required neither sharp cutbacks in spending nor major increases in tax revenues.

B. Toward a Taxonomy for Tax Reform

Not many postwar attempts at tax reform in LDC's have fulfilled the expectations of their architects; many have been stillborn. A small number have encountered limited short-run success, only to falter later; still fewer have been relatively successful over longer periods of time. Generalizing from the rich postwar reform experience is extremely difficult both because of the wide range of these experiences and because many reform programs in LDC's have not been well documented. For both reasons, this paper does not attempt to present lessons from all reforms attempted through 1987. Prominent among major reforms not discussed in any detail include the Indian and Turkish initiatives in 1985, both of which relied heavily upon newly-installed value-added taxes, but about which little has been published to date.

Notwithstanding the difficulties involved in generalizing about LDC experience with tax reform, sifting of available evidence does reveal the necessary but not sufficient condition for successful tax reform: the reform program must be broadly conceived to embrace fundamental changes in tax systems. A tax system has two principal, interdependent elements: the tax structure and the complex of mechanisms and institutions governing tax administration and tax compliance. Most reforms have focused primarily upon alterations in the tax structure alone, ordinarily a sufficient condition for failure for comprehensive if not partial reforms (see below). The tax structure consists of the configurations of tax bases and tax rates provided in legislation and/or decrees. While sometimes obscured by layer upon layer of provisions enacted piecemeal over several decades,

the tax structure is the more visible component of the tax system. Mechanisms and institutions of tax administration and compliance, however, include both readily observeable as well as veiled elements often overlooked in diagnoses of fiscal ills. These include the procedural and legal frameworks governing assessment, collection, audit, sanctions, appeals, record keeping as well as the state of information technology, the reward structure facing the civil service, disclosure requirements for firms and accounting conventions used by them.

The normal state of tax systems thus defined is that of flux, not stasis. Modifications made on a more or less continuous basis, whether in underlying laws or in administrative rules and procedures are best described as tax adjustments rather than reform. Changes in the tax system qualify as tax reform only when they involve discontinuity, and significantly alter the trajectory of the system. Tax reform may embrace all, or only a few major tax sources (income taxes, sales taxes, property taxes, import duties, etc.). When these changes include most or all important tax sources, they may be labelled comprehensive tax reform. Where reforms are undertaken only for one or two tax sources affecting less than, say one-third of collections, they can be called partial.

Partial as well as comprehensive tax reform initiatives are often undertaken as means for revenue enhancement. But as subsequent sections will show, a significant number of reforms have been designed under the constraint that tax reform should not result, overall, in significantly lower or higher revenues. These are examples of revenue neutral tax reform, wherein the time horizon for revenue neutrality is usually greater than one or two years.

Revenue-neutral tax reform is not necessarily distributionally neutral, nor economically neutral tax reform.[1] Distributionally neutral tax reform is contrasted with redistributive tax reform. In the former, but not the latter, reform is intended to preserve the pre-existing pattern of aggregate tax liabilities across income brackets; the mix of these liabilities, however may change drastically, as for example replacement of wealth taxes by income taxes. Redistributive tax reform, it will be shown, may aim either at "leveling down" or "leveling up" in the income distribution, or both.

Reforms that are intended to be either revenue neutral or distributionally neutral may or may not also have economic neutrality as an objective. But reforms geared both to revenue and distributional neutrality typically have economic neutrality as an overriding goal. As discussed at greater length below, an economically "neutral" tax structure is not necessarily an "optimal" tax structure, nor even an "efficient" one. Rather, advocates of neutrality seek a tax system that does not involve material changes in the structure of private incentives that would prevail in the absence of taxes. Greater neutrality in taxation is generally thought to require shifts toward more uniformity in rates and greater consistency

in definition of the tax base. Whereas the goals of revenue neutrality and distributional neutrality imply maintenance of the status quo in collections and income distribution respectively, furtherance of the goal of economic neutrality generally involves deliberate departures from the status quo, in that fewer, and less severe tax-induced distortions are sought, relative to those prior to reform. Economically neutral tax reform lies at one end of a continuum having interventionist tax reform at the other end. In the latter, policy makers deliberately seek to use the tax system to guide private decision-making to ends sought by the government. Early post-war tax reforms were closer to the interventionist end of the continuum than have been most reforms implemented or proposed after 1975.

Finally, tax reforms differ with regard to phasing of implementation. This may be critical for success of comprehensive reform efforts, for reasons offered below, but is largely irrelevant for partial reforms. Most commonly, governments have announced and attempted to implement all reform provisions at once. This can be called contemporaneous tax reform, even when transition rules delay full applicability of changes until subsequent years. Tax reform measures announced and implemented in distinct stages, as integral parts of a larger design, are examples of phased tax reform. Finally, reform enacted serially on a tax-by-tax basis, with little more than incidental reference to a larger design, may be called successive tax reform.

It is apparent, therefore, that "tax reform" has many meanings. The taxonomy presented here, by no means airtight nor exhaustive, refers only to differences in policy-makers' intentions for tax reform, not to the extent to which these intentions are fulfilled in any given reform episode. Even so, the taxonomy yields 135 different configurations of tax reform even without distinguishing between redistributive reforms that attempt to "level up" or "level down". That is to say, policymakers face at least six sets of alternatives in framing tax reform:

To recapitulate, these are:

(a) reform of tax structures, or tax administration, or reform of tax systems (both structural and administrative reform).

(b) comprehensive or partial reform.

(c) revenue enhancing, revenue neutral or revenue decreasing reform.

(d) distributionally neutral or redistributive tax reform.

(e) economically neutral or interventionist reform.

(f) contemporaneous, phased or successive reform.

There are two choices in all but (a), (c) and (f), which contain three each, so the number of apparent combinations is $2^3 \times 3^3 =$ 216, where all options are open. However, not all options are open in all cases. For example, a country constrained to seek revenue enhancement to meet a crisis in debt service would, at the very most, contemplate seventy two different paths to tax reform ($2^3 \times 1^1 \times 3^2$). And as a practical matter, few options are open in most cases, so that feasible paths to tax reform may number less than 10.

II. Sources of Lessons

The sun has rarely set on tax reform programs in developing countries in the postwar period. At least twenty comprehencive reforms have been proposed since 1945, several of which have been enacted in whole or in part. Examples of partial tax reform over the same period number in the dozens. In 1987 alone, major reform efforts have been initiated in Kenya, Malawi, Pakistan and several other nations.

A) Comprehensive vs. Partial Reform

The first truly comprehensive post-war tax reform program anywhere was that in occupied Japan in 1949-50,[2] at a time when that wartorn nation was then a rebuilding, if not a developing, country. In the fifties and sixties full-blown sets of proposals for reform of all major taxes were fashioned for Venezuela[3] in 1958-59, Columbia in 1968[4] and 1974, Liberia[5] in 1969. Chile[6] enacted major reforms in income, sales and trade taxes in 1974-75, featuring both a value-added tax, and uniform import tariffs (except on autos). These reforms were notable also in that they involved the first attempt among LDCs to achieve full integration of the personal and corporation income tax (since discarded in favor of partial integration). A major comprehensive reform effort in Bolivia was aborted[7] in 1976-77. More recently, comprehensive reforms were proposed and enacted in Indonesia (1983-84)[8], Jamaica (1985-87)[9] and Bolivia (1986); and proposed for Pakistan (1986-87)[10].

Particularly notable among the dozens of partial reforms were those in India (1956)[11], Sri Lanka (1959)[12], Brazil (1965)[13] and three cases in Uruguay (1967, 1968 and 1974-75).[14]. Both the India and Sri Lanka episodes mark important milestones in tax reform efforts: they were the first attempts to introduce a direct tax on expenditures as part of an inter-locking set of taxes on income, wealth and expenditures, intended to be more or less self-enforcing. Significant though these efforts were, they nevertheless qualify as examples of partial reform, because in both instances the expenditure tax was not a major source of revenue, since it applied only to a very small proportion of the population.[15] The brainchildren of Nicholas Kaldor,[16] both expenditure taxes were short-lived. The tax was twice enacted and twice repealed in India, and was abolished in Sri Lanka in 1965 after five years of unsatisfactory performance.

Two of the partial reforms in Brazil and Uruguay in the late sixties are especially noteworthy chapters in the history of value-added taxation. Brazil and Uruguay were not only the first among developing nations to adopt a value-added tax extending through the retail level, they preceded France and the rest of the European Community (EC) in implementing this now most common form of sales tax. (The tax was enacted for Japanese prefectures in 1950, but never put into operation). Indeed, adoption of this form of value-added tax (VAT) constituted important examples of partial tax reform in 20 other developing nations over the period 1970 1986.[17] It is of considerable significance that virtually every developing country that has enacted sales tax reform since 1965 has chosen one or another of

the two most common forms of VAT: the retail type now used all over Europe, or the manufacturer's VAT, enacted in Indonesia in 1984 and proposed for Pakistan in 1987.[18] Among the 40-odd countries that have used the VAT, only Vietnam (then South Viet Nam) has repealed it and this was during wartime (1971). Experience over the past two decades, then, suggests very strongly that insofar as tax reform is concerned, the VAT is the wave of the present, if not the future.[19]

Uruguay was also the scene of two other significant partial reforms.[20] The first, in 1967, resulted in the creation of the first operational presumptive income tax on agriculture at the national level. This tax was initially viewed as a model for similar levies in other LDCs but has proved wanting where it has been tried. And as discussed below, the presumptive tax in Uruguay today deviates sharply in structure and operation from that originally enacted. Uruguay was also the first, and apparently only country to abolish an operating personal income tax (1974). Much has been made of this apparently radical measure, but it should be noted that the personal income tax first came into existence in Uruguay only in the early sixties, and never raised very significant amounts of revenue prior to its abolition.

B) <u>Tax Structures vs. Tax Systems</u>

Until the late seventies, both comprehensive and partial tax reform initiatives (with the exception of Japan) tended strongly to focus upon tax structures rather than the broader tax system. This was clearly true for the comprehensive reform proposals for Colombia in 1968 (but not in a subsequent partial reform of the Colombian VAT in 1984), the abortive reform efforts in Ghana (1969-71), the partial

reforms in India and Sri Lanka in the late fifties, as in Brazil in 1965. In several other reform programs prior to 1980, broader tax system issues extending through tax administration and compliance were also addressed, but administrative aspects of tax reform were peripheral, not central, to the proposals. These included Peru in 1968, Liberia (1969) and Bolivia (1976-77). In still other cases, including the Venezuelan reform proposals of 1958-59,[21], and the ongoing Korean tax reforms adopted almost every year between 1960 and 1976, more substantial stress was placed on administrative aspects of tax reform [22].

Furthur, the pathbreaking Japanese reform packages of 1949-50 went well beyond examination of structural issues in tax reform to detailed consideration of several key issues in tax administration and compliance. The blue-return system of business taxation devised by the Shoup team was an innovation in tax administration that has survived in Japan for nearly 40 years.[23] But it was not until the mid-1980s that comprehensive tax reform programs again began to involve strong emphasis upon wider tax systems, as opposed to tax structures.

Finally, a sizable share of the preparations for the very recent Indonesian and Jamaican reforms was channelled into efforts intended to ameliorate vexing problems in tax administration and compliance, including computerization of the tax information system and major changes in taxpaying procedures. The Pakistan reform proposal of 1986-87 was unusual in that it involved an usually heavy focus upon administrative compliance issues, with much less attention to problems in the underlying tax structure.

C) Revenue-Enhancing vs. Revenue Neutral Reform

The revenue motivations for tax reform in the dozens of attempts at partial or comprehensive reform have been, in most instances, shrouded by the passage of time. It is generally assumed that in most settings the prime impetus for tax reform has been the need for immediate revenue enhancement to surmount fiscal crisis. But postwar history provides provides a large number of examples of tax reform programs that were intended to be more or less revenue neutral, in the short to medium term.

Immediate revenue enhancement was clearly not a major reason for mounting national tax reform initiatives in occupied Japan[24] (where significant national government budget surpluses were expected in 1951), Brazil in 1965[25], Liberia in 1969,[26] Bolivia in 1976-77[27] or Colombia in 1986. The Jamaican reform program of 1986-87 has been geared essentially toward revenue neutrality for income tax reform, but the still-pending VAT is expected to raise somewhat more revenue than the taxes it is to replace. The comprehensive Indonesian reform of 1983-84 was not initially conceived as essential for averting short-term fiscal crisis or for expanding the share of overall tax revenues in GDP over the longer term. Nevertheless, preparation for reform was begun in early 1981 with the realization that the high oil prices of 1979-80 were not likely to continue, and that non-oil taxes would sooner or later have to be called upon to provide a much larger amount of revenues than could be expected without fundamental tax reform.[28] The Indonesian reform, then, was intended to be more or less revenue-neutral over the short run, but like the Venezuelan reform proposal of 1959,[29] was also expected to render the system

capable of substantial revenue enhancement should the need arise over the longer term. In the event, tax reform as enacted proved strongly revenue-enhancing after oil prices collapsed in 1983-86: non-oil taxes rose from little more than 6 percent of GDP in 1980 to just above 9 percent in 1986. As in many other reform episodes, the value-added tax was primarily responsible for the sharp growth in revenues.

In other notable cases, immediate revenue enhancement was a prime motive for tax reform. In some cases the drive for revenue enhancement was impelled by acute fiscal crisis. This was true for the Colombian partial reform in 1965-66[30] the short-lived Peruvian reform of 1968 [31] as well as the Bolivian tax changes enacted in 1986 as part of the Draconian measures required to check hyperinflation. Also, the Colombian comprehensive reform of 1974, as well as the partial reforms of 1982, 1984 and 1985 were essentially responses to economic emergencies, including the outgrowth of a crisis in debt service in the latter two years.[29] Fiscal crisis, however, has been by no means the only reason why governments have sought short-term revenue-enhancing reform in the tax system. The Venezuelan proposals of 1958-59 contemplated immediate revenue enhancement in order to increase government spending on education and health. And the Colombian proposals of 1968-70 sought revenue enhancement to help finance new expenditure programs for primary and secondary education.[33]

D) Distributionally Neutral or Redistributive Tax Reform

Developing country tax reform programs in the first half of the postwar period were generally characterized by a much stronger emphasis on the need for income redistribution than has been the case since then. Preoccupation with enhancing progressivity of the tax system was in keeping with received wisdom of the day.[34] By the mid-seventies, however, the available evidence, both empirical and anecdotal provided scant grounds for optimism that the tax side of the budget in developing countries could be used efficaciously to secure significant income redistribution from rich to poor households, particularly since the preferred instrument for redistribution--the personal income tax--typically accounts for only about 2% of GDP in developing countries, with 3/4 of this coming not from capital income, but from wages and salaries.[35] Subsequently, attention shifted to the redistributive potential of the expenditure side,[36] as tax reformers increasingly pursued the more modest redistributional objective of preventing tax reform from making the poor "worse off".[37].

Indeed, most examples of avowedly redistributive tax reform programs were crafted prior to 1970. The most ardent arguments for redistribution through taxation were contained in the Kaldor proposals for expenditure taxes in India and Sri Lanka.[38] Both the comprehensive Venezuelan[39] and the Colombian[40] (1968) proposals, and to a lesser extent, the Liberian package of 1969,[41] however, laid relatively heavy stress upon income redistribution through tax reform, primarily through reliance upon progressive rates of income tax that were high by standards prevailing in the late eighties.

Examples of successful income redistribution through tax reform are in any case rare, although the first two years of the Colombian 1974 reforms (based in part on the 1968 proposals) did achieve temporarily some measure of success in this regard. Within two years, however, the administrative and procedural provisions of the reform were gutted by subsequent legislation, undermined by adverse Supreme Court decisions as well as taxpayer realization that penalties for evasion had no teeth.[42]

None of the proposed or enacted tax reform programs of the seventies and eighties was intended to be as distributionally neutral as the 1984 and 1986 U.S. reform proposals,[43] but few placed great emphasis on use of tax reform as a means of redistributing income from rich to poor. The Bolivian proposals of 1976-77, for example, stressed the need for directing <u>increases</u> in income toward the lower end of the income scale, rather than on redistributing existing income through taxes and fiscal transfers.[44] And in the 1987 proposals for reform in the Final Report of the Pakistan National Tax Reform Commission, it is noted that "realistic appraisal suggests that the cause of the poor can be served only to a marginal extent through tax policy measures".[45] The comprehensive reforms implemented in Indonesia (1983-85) and Jamaica (1985-86) embodied expectations that a rising share of tax liabilities would be paid by the highest quintile over the medium to long term, but neither reform was driven primarily by redistributional considerations. Indeed, the essence of both reforms was drastic simplification in both tax laws and tax procedures, achieved not only by purposeful shifts toward more uniform tax rates and much broader definition of tax bases, but also in the

case of income taxes, sizeable reductions in tax rates, made possible by base broadening. Certainly in the Indonesian case, emphasis was laid upon reduction, if not removal, of tax burdens on the poorest 40%, coupled with measures to narrow both the incentive and the scope for evasion of tax by the richest 20%. Consequently, the uniform rate manufacturers VAT does not extend to purchases of unprocessed food. And because the exemption structure of the income tax excludes the poorest 80% from the tax net, the new Indonesian income tax would have a progressive impact by its very presence, even if it were, as in Jamaica, imposed at a single, uniform rate.

Finally, in Colombia in 1986, and in the more recent partial income tax reforms in India (1974, 1975, 1984), the top marginal rates of income tax were reduced notably in each case. These adjustments were motivated not by distributional goals, but by considerations both of tax administration/compliance and of economic growth.[46]

E) Economically Neutral vs. Interventionist Reform

With few notable exceptions (such as the Japanese reforms of 1949-50), the evolution of tax systems until the late sixties showed signs of growing reliance upon tax provisions designed to guide private firms and individuals toward (or away from) investments and activities favored (disfavored) by government. These interventionist goals required a degree of fine-tuning of tax structures inconsistent with realities of tax administration and tax compliance in virtually all developing, if not developed, nations.

Arguably, it was not coincidental that the most extensive use of special tax incentives to promote growth and development occured in the period and in the countries when and where the least attention tended to be paid to issues in tax administration and compliance. Nations that relied particularly heavily upon tax incentive regimes through the sixties and seventies and into the eighties included Bolivia,[47] Brazil,[48] Colombia,[49] Ghana, Indonesia, Liberia, and Pakistan[50] as well as Jamaica[51], Venezuela and Turkey. Incentives were used to promote investment in priority industries, to encourage location of firms in so-called backward regions, to foster exports, to use public accountants, to promote embryonic domestic stock markets, to purchase insurance, and of course to attract foreign investment.

A number of earlier reform proposals, including those in Colombia (1968-70), Liberia (1969) and Ghana (1969-71) sought to curtail availability of incentive programs, but to little avail although the Colombian reform as enacted in 1974 essentially eliminated most incentives. Otherwise governments in most cases have proved extremely reluctant to forego this type of fiscal fine-tuning, even when presented with evidence not only of their corrosive effects on revenues but upon tax administration.

Later reform efforts in the seventies and eighties reflected stronger emphasis on neutrality and greater skepticism of the efficacy of differential tax incentives, particularly income tax holidays. To illustrate, the Bolivian proposals of 1976-77 called for a marked shift from incentives providing tax relief through income tax exemptions and rate reductions to investment grants, tax credits and expensing of capital

assets.[52]. The Indonesian reforms of 1983-84 went much further. All special tax incentive provisions were abolished in one fell swoop, thereby making it possible to lower income tax rates sharply both for firms as well as individuals.[53] Finally, the Jamaican reforms of 1986-87 were as strongly addressed toward "getting prices right" as any tax reform enacted up to now: the Jamaican reform abolished 16 separate special purpose tax credits on the personal income tax and curtailed company tax incentives for both agricultural and industrial firms.[54]

F) Contemporaneous vs. Phased and Successive Reform

As noted earlier, these time-related distinctions are relevant largely for the comprehensive types of tax reform. Examples of differences in phasing of implementation in comprehensive tax reforms are, however, not numerous, largely because not all such reform programs discussed to this point were accepted by governments; some never reached the stage of draft legislation (Venezuela 1959, Ghana 1969-70, Liberia 1969, Bolivia 1976-77). A few reform packages were distilled into draft laws and then put aside (Colombia, 1968), to be revived thereafter, sometimes as long as half a decade later.

In almost all instances, governments attempting to implement comprehensive tax reform have intended that it also be contemporeanous. This was clearly the case in Japan (1949-50), Colombia (1974), Chile (1974-75) Indonesia (1983-84), and Bolivia (1986)[55] but not Jamaica (1985-86). But some essentially contemporaneous reforms have involved some phasing of key provisions. This was so for the Indonesian reform, wherein new income and sales tax laws were both enacted in 1983, to take effect in 1984, while

final property tax reform legislation was delayed until 1986 and implemented only in 1987. In addition, the implementation date for sales tax reform scheduled initially for 1984, was ultimately postponed until 1985.

Recent Jamaican reforms furnish a good example of phased reform. A new, vastly simplified personal income tax was introduced in 1986, corporate tax reform was implemented a year later, and a new VAT (including some large retailers) is scheduled for introduction in 1987 or 1988.

Finally, the Korean experience from 1960 through 1975 best illustrates the case of successive tax reform. There, reform in tax structure and tax administration took place almost every year after 1960. Still, not all Korean tax reform could be characterized as successive: drastic overhaul in tax structures was adopted in 1967, 1971 and 1976.[56]

The apparent preference for contemporaneous reform in comprehensive programs may be due to two principal factors. First, both phased and successive reform may involve greater risk of adverse revenue consequences. A comprehensive reform may feature, for example, greater reliance on one major tax source (sales taxes) and lesser reliance on another (income taxes). Therefore, even for reforms intended overall to be revenue neutral, and particularly for those designed to be revenue-enhancing, all major elements may need to be implemented simultaneously to avoid revenue dislocation that might jeopardize the entire reform package. Second, tax reform inevitably involves winners and losers. Those interest groups perceiving themselves as losers from one element of a reform package may be

"winners" from implementation of another component. If so, contemporaneous reform may decrease the intensity of their opposition against the offending reform provisions. This is because with a phased, not to mention a successive type of reform, taxpayers can never be certain that the elements favorable to them will be actually implemented.

On the other hand, contemporaneous reforms have the disadvantage that they allow, relative to phased reforms, less time for the tax administration to absorb changes in tax laws and administrative procedures.

III. Assessing Tax Reform

A. Defining Success and Failure

No single standard for measuring success, or lack of success, in tax reform programs will be acceptable in all instances. One appropriate benchmark, however, might be the extent to which a particular reform achieved its announced objectives. Typical objectives sought for tax reform have been revenues, redistribution, promotion of growth, simplification and improved resource allocation, not all of which have been common to all efforts surveyed herein.

We have already seen that while in several cases short-term fiscal crisis has been the principal factor precipitating tax reform, there also have been several instances in which governments have sought fundamental tax reform in the absence of crisis. But even in many of these cases, governments have initiated preparations for reform in order to prepare the tax system to meet possible future fiscal crises (Venezuela, 1959; Liberia, 1969; Indonesia, 1983-84). In still other instances, governments have turned to tax reform not

to cope with imminent fiscal collapse, but to alleviate chronic deficits leading to chronically high rates of inflation (Chile, 1974-75). Finally, tax reform has been sought as a means of financing incremental expenditures in key sectors, such as education, as in the abortive Colombian proposals of 1968.

All of the above examples have had, however, one element in common: the desire to improve the revenue-generating capacity of the tax system, either in the short term, when fiscal crisis requires immediate revenue enhancement, or in the medium to long-term, in which cases short-run revenue neutrality may be deemed acceptable.

The expectation that reform would increase tax ratios, quickly or ultimately, has been characteristic of virtually all experiences examined in this paper. This objective has been not only ubiquitous, but typically the most ardently pursued by policy-makers. Other goals have been widely sought, including income redistribution, promotion of economic growth, tax simplification and improved resource allocation. But with the possible exception of the 1986 reforms in Colombia[57] none of these non-revenue motives have ever precipitated, singly or jointly, the launching of tax reform programs. To be sure, the Indian, Sri Lankan and Venezuelan reforms of the fifties, the Colombian reform proposals of the late sixties (and the reforms as implemented in 1974) were all infused with varying degrees of redistributive intent. Also, tax reform for promotion of economic growth was a prominent objective in early postwar reforms and recently has again become a widely discussed, if not pursued objective. Tax simplification, formerly viewed as essentially a means to other ends of tax reform, has itself been an important objective of reform

programs of the eighties, including those of Indonesia (1983-84), Jamaica (1986-87) and Colombia (1986), as governments have sought to reduce needless costs of tax administration for governments and costs of tax compliance for taxpayers. Tax simplification particularly where the tax system has gone unreformed for decades, has also come to be increasingly seen as supportive of the goal of reducing tax-induced barriers to improved resource allocation, a prominent goal of the Indonesian, Jamaican and Colombian reforms of the mid-eighties.

B. Announced Objectives and Actual Performance

1. Revenues

We have seen that efforts to reform taxation have been characteristic of a very wide variety of middle-income, but few very low income developing countries for at least four decades. If judged only by revenue implications, these undertakings appear to have been marked with some success. For developing countries as a group, the typical share of taxes in GDP (the tax ratio) hovered at about 11 percent in the 1950s. For the period 1972-76, the average tax ratio had risen to 16 percent, and in more recent years (1977-81) the average ratio had increased still further, to 17.5 percent.[58] In some countries, the tax ratio nearly doubled over the twenty-five years prior to 1985. To be sure, many of these were nations such as Indonesia with a high share of exports in raw materials, wherein the tax base is readily accessible to the tax administration. But sizeable natural resource exports are not always behind sharp increases in tax ratios: in India the tax ratio rose from 10 percent in 1960 to 20 percent in 1984[59]. More generally, tax ratios rose in virtually all developing nations where there was a material decline in the share of agriculture in GDP, and a rise in the share of

more easily taxed sectors, such as industry and mining.

A few tax reform episodes have been identified with sharp increases in tax ratios; sometimes these have proven sustainable, often not. For example, South Korea, relying more strongly on reform of tax administration than in tax structure in its 1965-66 program, sought to increase tax collections by 40% through more effective enforcement alone. This ambitious target was not met, but in five years the Korean Revenue Service was able to reduce underreporting of personal income by one-third.[60] Also, the Colombian tax reform of 1974 resulted in a 17 percent increase in the tax ratio for the first year after the reform, from 9.0 percent to 10.5 percent[61]. This relatively large jump, however, proved transitory, for reasons discussed below. The Indonesian reforms of 1983-84, initially designed to be revenue neutral, caused the share of non-oil taxes in GDP to rise by 50 percent by 1986, from 6 to 9 percent, even as tax rates were generally reduced. Most of the increase in revenues arose from the new value-added tax installed in 1985. Indeed, successful revenue results from tax reform have been strongly associated with implementation of value-added taxes in a very high proportion of cases. In the 40-odd developing countries that have adopted the VAT in tax reform programs since 1968 alone, the VAT has tended to be something of a "money machine", in the sense that it has not been uncommon for the ratio of VAT revenues to GDP to exceed by at least 50 percent the ratio of the indirect taxes replaced by the VAT, within three years of implementation.[62] Moreover, by 1984 the VAT had come to account for more than 20% of total tax revenues in nine LDCs,[63] including (in declining order of revenue importance of the VAT) Chile (37%), Peru, Brazil, Colombia, Korea, Madagascar, Guatemala, Uruguay, and Turkey.

The VAT has shown strong staying power as well; both in Brazil (1968 adoption) and Chile (1974 adoption) the VAT revenues in 1983 was more than six percent of GDP. More generally, the bulk of increased revenues from tax reform have come not from direct taxes on income, personal expenditure and wealth emphasized by advocates of reform in the fifties and sixties, but from indirect taxes, including the VAT. This has been true not only for nations where redistributive goals have not been recently stressed in tax reform (Indonesia, Uruguay), but for those nations such as India and Nicaragua, where they have been emphasized.[64] Examples of success in securing revenue objectives of tax reform have been rare where the value-added tax has not been an element in reform.[65] Wartime Vietnam aside, the Japanese reform of 1950 and the Bolivian partial reform of 1973[66] are the only clear examples of revenue failure in reforms involving the VAT, although the Argentine VAT (adopted in 1975) did not, in its first decade, display great revenue productivity and the VAT in Morocco has been severely hamstrung by excessive numbers of rates and exemptions. But the Japanese VAT was never introduced following its enactment; and the Bolivians did ultimately install a revenue-productive flat-rate VAT in 1985-86.

Reforms geared to revenue neutrality might be judged successful if actually revenue-enhancing, but not if revenue-sacrificing. The Japanese reforms, as noted, sought tax reduction at the national level (particularly for personal income taxes) and stronger tax sources for subnational governments (prefectures), implying rough revenue neutrality for the package as a whole.[67] In the event, the former was achieved, as total net tax revenue fell by 10 percent, with the personal income tax

falling by 21 percent in 1950-51, the first year of the reform.[68] However, the failure to implement the VAT for the prefectures meant that overall revenue neutrality was not achieved. The post-reform Japanese personal income tax presents an interesting phenomenon: over the next 15 years following the cut in rates in 1950, personal income tax revenues grew at such a rapid pace that the government resorted to a further five separate rate reductions,[69] most notably in 1954 and 1955. It is left to future research to determine whether Japanese tax reform experience in the two decades after 1949 constitutes an object lesson supporting the less restrained claims of the supply-side school of economics or those who argue that the better part of tax reform is sustained commitment to improved tax administration.

The revenue yardstick indicates the clearest failures in cases of those reform packages that were either stillborn, partially implemented or unduly delayed. Stillborn cases include Liberia (1969), Bolivia (1976-77), and Ghana (1969-71). The Venezuelan reform package was implemented only in very small part in 1958. Tax reform languished for the next 15 years, at which time the principal elements of the 1957 proposals were in fact adopted.[70] The Colombian package of 1968-69 experienced a similar fate: bits and pieces were enacted (and some rescinded) from 1968-72, but the core of the original proposals was finally implemented in 1974. Both episodes suggest that delayed reform is not always lost reform.

Revenue performance, then, has been one of the principal criteria employed in judging the success or failure of tax reform programs. Nevertheless, it is important to note that a revenue-successful tax reform could be a failure, when seen from a wider, and arguably more appropriate,

economic perspective. The "Please effect" cannot be ignored,[71] nor can it be assumed that, where present, greater public savings made possible by tax reform will be used for expenditures helpful for development.

2. Redistribution: Leveling Down and Leveling Up

Earlier sections identified reform programs involving some significant stress upon income redistribution. Criteria for success in this arena would differ according to whether the emphasis is upon rectifying problems of relative impoverishment (highly skewed income distribution) or absolute impoverishment (a large share of the population at or below minimal subsistence levels of income).

Tax reforms designed to ameliorate relative impoverishment tend to place heavier stress upon increasing progressivity at the upper tail of the income distribution, usually through steeply progressive rates in the personal income tax. Such reforms have also tended to emphasize revenue enhancement, with the expansion of revenues to be collected from the upper quartile of the income distribution sometimes coupled with measures to lighten tax burdens upon the poorest 40 or 50 percent of families. Tax reform designed to amend relative impoverishment then, is concerned with leveling down after-tax incomes. By contrast, reform geared to reduction of absolute impoverishment is concerned with leveling up, by making the very poor better off, or by insuring that tax reform itself does not make them worse off while at the same time channelling expanded tax revenues into pro-poor expenditures. Income tax reform can contribute to leveling up by enactment of personal exemptions high enough to insure that the poor fall outside the tax net.

Examples of reforms focused essentially upon leveling down include both the Indian and Sri Lanka expenditure taxes of the mid to late fifties. In both nations the expenditure tax affected only the uppermost ends of the income distribution. Neither attempt was notably successful; the work of Bird and Dewulf suggest that tax policy designed with this redistributive goal in mind has generally been unsuccessful across developing countries[72]; examples of successful reforms focused primarily on leveling down are difficult to find.

Rather, most reform programs have been hybrids, where redistributive goals are concerned. Examples include the Colombian reform proposal of 1968-69, as well as the 1974 reform that incorporated many elements of the 1968 proposals. In both, stress on heavier taxation of capital income, particularly capital gains and income from wealth, was due largely to a desire to reduce relative impoverishment. But the reform package as proposed also called for more effective taxation of alcohol and tobacco. However desirable on social grounds, heavier taxes on these items tend to increase tax burdens on low-income families, given income elasticities of spending on both. At the same time, the Colombian reform program, as initially designed and as implemented, also contained measures to level up the tax burden, by expanding exemptions of food under indirect taxes, and to reduce taxes on smaller rural land parcels.

The Colombian reform of 1974 was moderately successful in leveling down for a short time: the initial impact of the reform may have

shifted between 1.4 and 1.5 percent of GDP away from the top quintile of the income distribution in 1975-76.[73] Most of this gain however, was dissapated after two years, for reasons identified earlier.

The two most recent comprehensive reforms of tax systems, those of Indonesia and Jamaica, involved more stress upon leveling up rather than leveling down. Both eschewed steeply progressive rates, both for income and consumption taxes, instead concentrating on tax rate reduction and upon base-broadening. Both involved adoption of personal exemptions high enough to exclude the poorest 75 to 80 percent of families from the income tax base. The Indonesian income tax rate structure calls for a maximum rate of 35%, with two lower rates of 15% and 25%; the Jamaican tax is imposed at a flat rate of 33 1/3%. The only leveling down feature in the entire Indonesian package expressly concerned with "leveling down" was a special tax on such "luxury" items as autos and VCRs to complement the flat-rate VAT. Not surprisingly, the luxury tax, even at rates double those of the VAT, has accounted for less than 3 percent of total indirect tax collections since the reform was implemented. In Indonesia, as in most other countries, the share of "luxuries" in total consumption has been so small as to preclude substantial collections from such taxes.

3. Promotion of Economic Growth

A recurring theme of tax reform over the past four decades has been that of fostering growth through tax policy. But the reform-growth nexus as seen by some advocates of reform in the late eighties is very different from that commonly perceived in the fifties and early sixties.

Growth-promoting tax reform was earlier widely thought to require manipulation of tax rates and tax bases to provide differential incentives for seizure of opportunities for saving, investment and industrial location identified by governments. Most of the reform programs fashioned for the fifties and sixties specified a variety of special reliefs or tax preferences for this or that industry or occupation or region. A notable exception, however, was the Japanese package of 1949-50, which was criticized at that time for the absence of such provisions.[74] The principal architect of that reform, Prof. Carl Shoup, viewed such provisions as "having no place in the income tax law."[75]

By the eighties, many fiscal economists, and apparently many tax policy makers in LDCs, had come around to the Shoup view of the efficacy of using tax preferences for promoting growth, that the tax system could facilitate growth by doing the job for which tax systems are best suited: raising revenues to finance expenditures in non-inflationary fashion. But an influential, if relatively small, group of advocates of tax policy for fostering growth did emerge in the early eighties. Whereas growthmanship through tax policy in the sixties required that the tax system be finely-tuned to actively encourage growth, tax growthmanship in the eighties views tax <u>rate</u> reduction as both the necessary and sufficient condition for accelerated growth.

To be sure, some fragmentary, but still inconclusive evidence has appeared that attests to an association between lower tax rates and high growth in some settings[76]. And Chile (1975-79) and India (three occasions since 1974) have experienced spurts in growth

following reductions in the top marginal rate of income tax. Nonetheless, assertions of a clear positive nexus between taxation and growth in general, and of the growth impact of tax rate reductions in particular, continue to be based upon belief, rather than empirically verified claims.

Nevertheless, there is one level of argument under which such a nexus appears to be taking shape. This has to do with the question of the international mobility of capital. For much of the postwar period, economists and policymakers tended to view capital as essentially immobile across international borders. Immobility of capital was thought to be particularly characteristic for developing countries, where explicit controls on movement of capital tended to be far more pervasive than in developed countries. But quite apart from both the porosity of such controls (arising from ineffective administration) and the fact that some developing countries such as Indonesia and Singapore impose little or no explicit limits on movements of foreign exchange, there is a growing body of evidence indicating a fairly high degree of international mobility of capital, both for the world in general[77] and for developing countries in particular.[78]

The greater the international mobility of capital, the greater are the constraints on taxation of capital by any one country. Tax reform in any given country that reduces the domestic after-tax rate of return to capital much below that available elsewhere increases the likelihood of outward migration of capital, to locales where after-tax returns have not been so curtailed. Seen this way, the connection between capital taxation and growth is therefore relatively

straightforward. Although modern growth theory no longer gives pride of place to the factor capital, no one has yet figured out how a country may sustain growth without steady growth in its capital stock. To the extent that capital is required for growth, and to the extent that capital is mobile internationally, the lighter is the indicated taxation of capital and income from capital. Recent readings of the evidence on both the role of capital in growth and its mobility suggests that relatively high rates of capital taxation are consistent with growth only when they are easily avoided or evaded by capital owners large and small.

4. Tax Simplification

The tax systems of most developing countries have, more often than not, been designed to conform to assumptions prevailing in very few of them: low rates of inflation, a plentitude of skilled administrators available to operate inherently complex income taxes, easy-to-follow "paper trails" in the conduct of business by the private sector, and presumed immobility of capital across national borders.

The interactions among these assumptions, together with widespread utilization of tax preferences for promotion of growth, has yielded in many cases, tax systems of such complexity as to defy the intentions of the most earnest and best-provisioned tax administrators. Sustained rates of inflation, even when as low as 6 or 7 percent, engender very serious problems in defining taxable income equitably, through effects of inflation in distorting depreciation allowances and interest income and expenses. The presence of progressive tax rates compounds these problems,

particularly in environments of double-digit (and increasingly, triple-digit) inflation that have become all too common among developing countries. Inevitably, governments must provide taxpayers relief from the combined ravages of inflation and progressive rates, or else acquiese in the eventual collapse of the system. Granting of relief, whether in the form of complicated provisions for tax indexation, inevitably result in greater complexity in tax laws and tax administration alike.

The lack of reliable "paper trails:" in the conduct of business leads to increased reliance upon crude rules of thumb in assessment of taxes, particularly in the form of much vaunted and little proven forms of "presumptive taxation." Many of the above factors unite to complicate efforts to tax what is essentially untaxable for most LDCs: the overseas investment income of the entreprenuerial and rentier class, whether businesspersons or civil servants.

Over several decades, attempts are typically made to cope with such income tax difficulties on an essentially piecemeal basis, through layers of special provisions and decrees enacted with little reference to one another, only to the vexing problems of immediate concern. Consequently, taxes that typically affect no more than 2 percent of the population and account for less than a sixth of revenues come to consume upwards of 90 percent of administrative resources. Ultimately, revenues may be sustained only through further increases in tax rates on steadily shrinking bases.

When this point is reached, or well before that time, tax simplification becomes attractive not only as a means of reducing needless costs of tax administration and compliance, but because the risk of revenue loss from reforms so motivated are low, and the possibility of efficiency gains high.

5) Reform and Resource Allocation

Tax systems impinge upon efficiency in resource allocation primarily through the effects of taxes upon incentives to save, invest, supply labor effort and undertake risks. For developed countries, particularly the United States, evidence has been mounting that the adverse effects of taxes on these key incentives has given rise to welfare costs (excess burdens) that are not at all trivial[79].

Optimal tax theory provides rules for the design of tax structures that would allow these welfare costs to be minimized given sufficient information on demand and supply elasticities. But because optimal tax theory to date has assumed that costs of tax administration and compliance are nil, the theory furnishes few workable guidelines for reform of tax systems. For these and other reasons provided below (including income distribution considerations), optimal tax theory has yet to have much influence in shaping actual tax policy, notwithstanding its significant impact upon the way economists view tax issues[80].

Since "optimality" in real-world tax systems is at present unattainable at any cost, tax reform directed toward more efficient resource allocation is generally measured against conditions required for greater neutrality in taxation[81], particularly since optimal tax theory has provided, to date, little assistance in identifying optimal departures from neutrality in real world policy settings. Greater

neutrality in taxation is generally taken to imply both greater uniformity in tax rates and greater generality in not only the tax rules prescribed in tax structures but in the mechanisms of tax administration. Greater generality, then, requires both the broadening of tax bases to the extent possible, as well as shifts toward more even-handedness in tax administration.

Until the seventies neutrality was not prominent among the explicit goals cited for tax reform programs in developing nations. Where present, neutrality as an objective of reform was typically implicit rather than explicit, serving to condition rather than dictate the shape of reform proposals. Except for such notable exceptions as the Indian and Sri Lankan reforms of the late fifties, most published reform proposals, however, did call for greater uniformity (less dispersion) in tax rates. Similarly, arguments for reform generally evinced strong preferences for base-broadening and aversion to exemptions, except those deemed essential on grounds of income distribution. Emphasis on neutrality was most marked in the more recent reforms enacted in Indonesia and Jamaica, but pursuit of greater neutrality in taxation also undergirded such reform packages as those proposed for Japan (1949-50), Venezuela (1957), Colombia (1968-69 and again in 1986), Liberia (1969) and Bolivia (1976-77).

B. Conclusive and Inclusive Factors Underlying Success and Failure

The three subsequent sections examine factors that have been associated with some success in tax reform programs, or that may have contributed to success in some cases and failure in others, or whose

role has been inconclusive. By the standards outlined in foregoing sections, few comprehensive reforms would qualify as successful, even in the short term. There are, however, perhaps two dozen examples of partial reforms that have encountered more than just a modicum of success. Most of the latter, moreover, have been instances in which a VAT was adopted to replace other indirect taxes. The decision to move to a VAT, in the LDC context, has been itself a factor in successful partial reforms, as we shall see.

1) Short and Longer Term Successes

Reforms that met or exceeded revenue objectives have also tended to be reforms that have gone further in satisfying redistributive, growth, simplification and resource allocation goals where these last four goals have been sought. This statement applies both to reform packages geared to revenue enhancement as well as revenue neutrality. However, there are exceptions: the Japanese reforms of 1949-50 were successful in revenue terms for the central government tax system, but not that of the prefectures. Still, this reform episode must be classed as successful, if for no other reason than the fact that so much of what was implemented remained intact for so long.

Other comprehensive reforms that may qualify as successful in the short term include those in Colombia in 1974, Chile also in 1974, Indonesia in 1984 85, and the personal income tax component of the phased Jamaican reforms of 1986 87. Notable examples of the many successful partial reforms include the introduction of the VAT in Uruguay (1968), and Brazil (1969). Factors underlying success were different in different cases, but six may be particularly significant.

First and foremost, tax reform tends to be most successful when it has been needed least. That is, the chances for successful comprehensive reform are greatest when reform is not a response to severe short-term fiscal crisis. Introduction of tax reform in response to acute fiscal crisis increases the likelihood that the reform will be hurried and probably poorly designed and certainly poorly implemented; it virtually guarantees that reform will emphasize tax structure rather than needed changes in the broader tax system, and that major implementation issues will be overlooked.

Acute fiscal crisis was absent in Japan as well as in the recent Indonesian case; large infusions of foreign aid meant that Jamaica faced chronic but not acute fiscal stress in the mid-eighties. In the latter two instances, preparations for reform began more than two years before the effective date of the first reform legislation. Absent the pressures of acute fiscal crisis, the architects of reform had in both cases sufficient time to devise and vet major changes in tax structure suitable for each setting, to consider parallel improvements in tax administration, and to plan measures for smoothing implementation of reform. The success of the Japanese reforms is all the more notable because of the very tight time constraints on the reform effort: most studies of reform options were completed within 4 months in 1949; by April of 1950 much of the reform program was in place.

Second, except for postwar Japan, the chances for successful reform appear to be the greater when a VAT is involved. This was true

for the 1974 Chilean reforms, the 1984 Indonesian reform, and for all but one of the nearly 40 developing countries that have adopted one of the two most common forms of VAT since 1967.

Two factors seem responsible for the relatively high success rate for reforms involving the VAT. To begin with, the VAT has generally replaced archaic and essentially inadministerable forms of sales tax, such as multiple-stage turnover taxes and single stage manufacturers' taxes. In addition, while the benefits of the self-enforcing features of the VAT are often overstated, the tax credit method of collection used in virtually all VAT countries not only makes evasion somewhat more difficult in practice, but helps preserve the integrity of the VAT against those interests seeking exemptions from the tax. This is because non-retail firms benefit neither from exemptions or zero-rating, (the alternative to exemption) under the VAT.[82]

Third, the chances for successful tax reform are considerably enhanced when reform efforts go well beyond mere changes in tax structure, to fundamental reform of the broader tax system, that also involve measures to simplify tax administration and compliance. Tax systems generally do not break down only because of the presence of defects in tax structure, but because long-standing flaws in tax structure reinforce and aggravate underlying weaknesses in the machinery of tax administration.

The Japanese reforms of 1949-50 were notable for a strong focus on tax administration. The early success of the Colombian reforms of 1974 was due in significant part to major changes in the procedural and legal frameworks governing assessment, collection and audit; judicial revocation of these changes in 1975-76 was the most

significant factor in the undoing of the reform. The Indonesian and Jamaican reforms in the mid-eighties involved unusually high stress on simplification of administration and procedural changes and also improvements in tax information systems, although the Indonesian reform as enacted delivered less than promised on all but the latter.

Fourth, substantial attention to implementation issues seems to auger well for successful tax reform, if the experiences from the small number of successful comprehensive reforms are any indication. Implementation measures conducive to success include provision of expert legal advice in drafting of actual reform legislation from the decision of policy-makers, training of tax administration officials to operate the reformed system, publicity for educating taxpayers about the new system, and even careful attention to the fashioning of new forms for filing of taxes. Both the recent Indonesian and Jamaican reform efforts placed very heavy stress on insuring that draft legislation reflected the intentions of policymakers and on preparation of tax officials and taxpayers for the new tax regime; the Japanese reforms were very heavily publicized prior to enactment.

Fifth, the few examples of succesful comprehensive reform are associated with a relatively high degree of continuity among decision-makers responsible for economic policy in general and tax policy in particular. Successful reforms in early postwar Japan, Indonesia in 1983-84, and Jamaica in 1986-87 were designed and implemented under the same chief executives, with no abrupt changes in the orientation of Ministers of Finance, the cabinet official most crucial for success in tax reform. Finally, the 1974 Colombian reforms were designed and implemented essentially by the same team of

Colombian economists that had participated in preparation of the 1968 package that was the precursor of the 1974 reform. Continuity in decision-making for tax policy seems essential not only to insure adoption of sensible reform, but to provide for the type of active follow-up that seems, increasingly, essential for defending reform. No tax reform programs can anticipate all possible problems. Once enacted, obvious gaps in legislation and in administrative resources tend to quickly emerge. Effective follow-up requires a watchdog group committed to the success of the reform, prepared to propose modifications for dealing with problems as they emerge, but which are consistent with the spirit of the reform. Provision for such watchdog activity was made both in Indonesia and Jamaica, and to a certain extent, in Colombia in 1974-75.

Sixth, successful reforms tend to place little or no reliance on "tax gimmicks" or other "quick fixes" for fiscal problems. Such "gimmicks" include sales tax lotteries for receipts given by firms, most forms of presumptive taxes, including those upon agriculture, and so-called self-assessment systems for taxes on property.

Finally, the half-lives of successful tax reforms tend to be the longer, the larger the number of the foregoing six factors were present, and the longer they were present. For example the undoing of the Colombian reform of 1974 coincided with an interuption of continuity in decision-making and the overturning of key procedural and administrative provisions.

2) Failures

Not many developing countries have consistently failed in implementing tax reform in the post-war period. Abortive tax reforms in Venezuela (1959), Columbia (1968), and Bolivia (1977) were followed by fairly successful reforms within a decade. The postwar history of a few developing countries is, however, studded with episodes involving failed attempts at tax refrom. This has been particularly true for Peru, where there has been no fundamental tax reform for three decades,[83] in spite of major reform initiatives in 1968 and 1971-75. It has also been true for Ghana through 1986 and Pakistan through 1987.

In general, economic factors responsible for failure of reforms actually implemented, or for stillborn reforms, tend to be the obverse of the six factors that have tended to underlay success: reforms enacted in response to acute fiscal crisis, reforms not involving a VAT, reforms with excessive focus on tax structure at the expense of attention to administration issues, inattention to implementation issues, lack of continuity in decision-making, and over-reliance on tax gimmicks, and "quick fixes" in tax administration.

In addition, two other factors may have played a role in some instances of failure: excessive reliance upon personal income taxes in reform programs; and vigorous opposition from the press.

Successful reforms have tended to be those that have implemented tax systems designed to work with poor administration. Income taxes

are, by several orders of magnitude, more difficult to administer than most forms of indirect consumption taxes, including the VAT. Moreover, there are very few examples of personal income taxes in LDCs that involve more than three or four percent of the population. For both reasons, reform programs relying heavily upon personal income taxes for revenue enhancement are not likely to be successful.

The press has played a notable role in predisposing certain elements of reform packages to failure. The Japanese press sustained a barrage of criticism against the enactment of the prefectural VAT in 1949-50,[84] arguing that it was discriminatory against them. Much of the press in Colombia opposed the announcement of initiation of reform studies in 1968, so the torrent of press complaints after release of the proposals in 1969 was not surprising, but nevertheless effective in helping to throttle plans for immediate implementation.

3) Inconclusive Factors

Two factors might be expected to play significant, if not critical, roles in predisposing a reform to success or failure: the place of tax reform in a sequence of broad policy reforms, and the extent of involvement of foreign aid donors in financing and shaping reform.

Recent literature in economic policy suggests that sequencing of major policy changes can matter greatly for the success of the set of measures in question. Too few tax reform programs have been enacted as part of any clearly definable sequence to allow any conclusive lessons to be drawn on this score. Three experiences, however, do indicate that sequencing of reforms can matter, and that the place of tax reform in the sequence may be critical: the cases of Japan

(1949-50), Korea (1962-65) ,Indonesia (1983-84). The Turkish tax reform of 1985 was also adopted as part of a broader sequence of policy reforms, and did encounter at least initial success.[85]

The Japanese tax reform was last in a sequence of major policy chances imposed by General MacArthur, the Supreme Commander for the Allied Powers (SCAP) occupying Japan. In this case, lateness was a problem: post-mortems on the Shoup Mission that prepared the tax reforms invariably conclude that had the Shoup reforms been submitted in 1946 or even as late as 1948, a greater proportion of the plan would have endured.[86] As it turns out, the first element in the sequence was an attempt, in 1946, to overhaul the Japanese tax administration, which began to founder on basic deficiencies in tax structure and on a premature attempt to introduce "self assessment under the income tax". The second was the implementation of Draconian economic stabilization anti-inflation measures of the Dodge Mission in early 1949, (before the arrival of Shoup), which, it has been argued, limited the revenue options that the Shoup Mission could have proposed.[87]

Tax reform was also late in the sequence of policy reforms in Korea in the early sixties, but in this case lateness was not a hinderance. Successful reforms in financial policies and trade policies in 1963-65[88] preceded tax reform in 1966. The earlier reforms in the sequence smoothed the way for tax reform, by bringing stability and growth. These earlier successes may also have meant that the credibility of government economic policy was well established by the time tax reform was introduced.

The Indonesian tax reform of 1983-84 was also the last in a sequence of major policy readjustments. Earlier in 1983, five major changes were adopted in domestic energy policy, government consumption and investment policy, exchange rate policy and financial policy.[89]. In each case, the five previous reforms in the sequence were perceived to have been successful. The package as a whole therefore gained a measure of public acceptance: the tax reform could then be presented as the last of six major belt-tightening policy adjustments required to gear the economy to an era of lower oil prices.

Three cases, however, are insufficient for drawing generalization about the best place of tax reform in any broader sequence of policy reforms.

We would expect the role of aid donors to be relatively unimportant. Rather, it might be expected that the greater the degree of involvement by bilateral and multilateral aid donors in arranging tax reform, the less likely the chances of success. The reason is quite simple, and has little to do with the competence of donor agencies and not usually much to do with politics. Rather, aid donors are much more likely to be involved in tax reform when reform initiatives are undertaken in response to acute fiscal crisis. Since reform programs fashioned in response to acute fiscal stress are themselves more likely to fail, it should not be surprising that donor involvement may often be associated with failed tax reform.

Several donor-sponsored reform initiatives have been stillborn. These include those for Liberia, El Salvador, an early effort in Colombia in 1950, an early Chilean example (1967) and Panama in the seventies. But a goodly number of efforts where donors have <u>not</u> been

involved have suffered a similar fate, notably in Ghana (1969-71) and Bolivia (1976). Neither the Colombian reform proposals of 1968 nor the reform package actually adopted in 1974 had any donor involvement, but the first was largely unsuccessful while the second was not. Two recent, and apparently successful, reforms cloud the picture even furthur. The Indonesian tax reforms of 1983-84 (and indeed the whole sequence of six major policy adjustments in that period) was undertaken without donor involvement of any kind. On the other hand, aid donors did help to initiate successful tax reform in Korea in the sixties primarily by withdrawing foreign aid, thereby increasing the need for reliance on domestic resource mobilization. Donors also played a significant role in urging the recent Jamaican tax reform, the costs of which were largely borne by USAID.

IV. Lessons from Experience

From the foregoing discussion, at least 14 principal lessons can be drawn. Half of thse are rather conclusive, the other half are, while perhaps instructive, not altogether conclusive.

A. Conclusive Lessons

1) Hurried Reforms are Generally Failed Reforms

Virtually all successful comprehensive reforms, and most successful partial reforms, have hot been undertaken in response to acute revenue crisis. With the notable exceptions of occupied Japan and the recent (1985) Turkish[90] reforms, there are almost no examples of successful comprehensive reforms that were designed and implemented within months. The appropriate time horizon for tax reform is thus best expressed in years, not months.

Time is required not only to make a convincing case for reform, but to evaluate competing reform proposals to scrutinize and vet data prepared in support of reform, and above all take steps to insure that new tax structures will work well with poor administration. Sufficient time was not available in the reform programs for Venezuela (1957-58), Colombia (1968-69), Liberia (1969), Ghana (1969-70) nor Bolivia (1976-77). Reform was aborted or long delayed in all these cases.

On the other hand, the recent apparently successful tax reforms in Indonesia were developed over a period of years: four in Indonesia (counting a year devoted to implementation after enactment in 1983) and three in Jamaica, also counting a year of work on implementation.

But years of discussion do not guarantee successful reform, nor does speed in implementation necessarily always lead to failure, particularly for partial reforms. The new Bolivian VAT, enacted in 1986 in response to severe fiscal crisis, wherein the tax ratio had fallen from 10 percent to 2 percent in the two preceding years after less than three months of discussion, attests to the latter.

2) <u>Delayed Reform is Not Necessarily Lost Reform</u>

Reform programs meeting with initial failure do not always represent wasted effort, provided they are "placed on the shelf," ready to be implemented at a more propitious time. We have seen that reform proposals in Venezuela (1957) and Colombia (1968-69) formed the basis for actual reforms implemented years later.

3) Reform Must Focus on Tax Systems

One of the clearest lessons emerging from the rich postwar history of tax reform in LDCs is that while reform of tax structure must precede administrative reform, comprehensive reform efforts confined to tax structures are unlikely to qualify as successful. The same conclusion applies with almost equal force to programs of partial reform, including the many examples of successful switchovers to the VAT.

Successful reform requires that tax administration be a central, rather than peripheral focus of reform. This does not always require that tax reform result in sharp and rapid improvements in tax administration; but at a minimum it does require that structural reform be explicitely designed to function well with weak administration.

While reform packages giving short shrift to administration have not been successful, there has been at least one case (Korea 1966) where reform focused largely upon administrative issues has been fairly successful, although not to the extent sought by the architects of reform.

4) Simplification and Rate Reduction Are Mutually Reinforcing

A worldwide movement has been discernible in the past decade: a drift away from high rates of tax (including marginal rates under income taxes and differentiated rates of sales tax), and fine-tuned tax structures, toward lower and more uniform rates and simpler structures. Both simplification and rate reduction seem to work best where the other is present.

Growing recognition of the extent of mobility of capital across international boundaries has contributed to downward pressure on high marginal tax rates in country after country, including Indonesia, Jamaica, Pakistan, India and most recently Bolivia. Falling rates have contributed to simplification in several respects, not least of which is the impact of lower tax rates upon arguments for complicated and difficult-to administer tax incentives. Enactment of generally lower rates reduces the reward for rent-seeking that accrue to those who seek and receive tax preferences. Also, reduction in height and dispersion of tax rates makes avoidance and evasion less attractive, and less feasible, for taxpayers.

5) Revenue Shortfalls Doom Reform

Tax reforms that fall short of revenue objectives, whether revenue enhancement or revenue neutrality, are unlikely to be successful in achieving non-revenue objectives of reform. There are no examples of reforms involving revenue shortfalls wherein goals of either redistribution or growth promotion were served. There may be examples wherein revenue goals of reform were badly unfulfilled and resource allocation goals realized, but such examples were not uncovered in this survey.

6) Indirect Taxes Are Critical in Securing Successful Reform

Successful tax reforms have tended to be those emphasizing sales taxation, and in particular the value-added tax. Except for Japan, where the VAT, first proposed in 1949, remains to be implemented this has been the prevailing pattern for successful comprehensive reforms, although the initially successful 1974 Colombian reforms did involve heavy emphasis upon the income tax. Partial reforms that have

encountered success have been overwhelmingly indirect tax reforms, involving in virtually all cases adoption of a VAT. Among the family of value-added taxes, LDCs have tended strongly to adopt the type of tax pioneered in Latin America in the late sixties and now utilized in all EC countries: the consumption type value-added tax, using the tax-credit method of collection and imposed on the destination principle. Moreover, developing countries have increasingly turned to the retail form of the VAT, as employed in the EC.

7) Implementation Is Crucial

It is not enough to insure that reform in tax structures dovetails with administrative capacities. Successful tax reform requires detailed attention to implementation issues. Poorly drafted reform legislation jeopardizes chances for successful reform. More than one reform has foundered because of inadequate preparation of tax collectors to administer the reform and/or unintelligable instructions to taxpayers, or because new tax forms for new tax laws were unavailable or unsuitable.

B) Non-Conclusive Lessons

1) Tax Reform, Redistribution and Growth

The implications of tax reform for income redistribution and economic growth remain to be verified. However, the record does suggest that while expectations that tax reform could help in "leveling-down" in income distribution have been rarely fulfilled, reforms geared to "leveling up" have not had dissappointing results.

Tax reform programs that recognize constraints imposed by international mobility of capital may be helpful to growth, but beyond that the nexus between economic growth and tax policy is not at all well established.

2) Comprehensive vs. Partial Reforms

Experience does not allow any firm judgments as to the relative merits of comprehensive versus partial reform; the fact that a greater number of partial reforms have been successful may be due not so much to the non-comprehensiveness of the reform effort, but to the fact that many such reforms involved implementation of a value-added tax.

Comprehensive reform has worked best, however, when it has been undertaken in the absence of impending fiscal crisis, and when it has focused on the entire tax system, rather than merely upon tax structures.

3) Contemporaneous vs. Phased Reform

There have been few examples of wholly comtemporaneous tax reforms. The Colombian reform of 1974 was the closest to a fully contemporaneous reform, but this reform ran afoul of judicial review shortly after implementation. A few successful reforms, including that of Indonesia in 1983-84 were essentially contemporaneous, but nevertheless involved some phasing of reform measures.

Phased reform has been attempted most recently in Jamaica; the ultimate success of this reform will depend in very large part upon effective implementation of a new VAT, scheduled for 1987-88.

4) Sequencing of Reform

While the sequencing of policy adjustments may be extremely important for trade, exchange rate and financial policy, there is no clear evidence that prospects for successful tax reform are dependent upon the existence of a sequence of reforms, nor of the place of tax reform in that sequence. Nonetheless, the experiences of Korea (1966) and Indonesia (1983-84) do suggest that when a series of policy reforms are sequenced, chances of successful tax reform are not jeopardized by having tax reform last in the sequence.

5) Aid Donors and Reform

The most that can be said about the implications of involvement by aid donors in reform is that non-intrusive involvement (confined to financing of whatever foreign skills are needed for tax reform) has proven helpful in several cases. And although a number of successful reforms have been implemented with no involvement whatsoever by donors, this proves little, since many reform programs have failed without donor assistance.

6) Optimal Tax Theory and Tax Reform

The impact of optimal tax theory upon tax reform has to date been small and indirect. It has been small largely because the literature on optimal taxation has not yet produced rules and criteria readily understandable by framers or tax policy, because the theory assumes frictionless tax administration and compliance and because it assumes knowledge about elasticities that is not yet available. There has been an important indirect effect of optimal tax theory, however in that it has affected the way many policy economists view tax reform. In particular, it has caused them to sharpen as well as

qualify many of the arguments long used to support shifts toward greater "neutrality" in taxation. It is now more widely recognized that "neutral" taxes are not necessarily "efficient" taxes or "optimal" taxes. While not nearly as intellectually satisfying a guide to tax policy as "optimal taxation", neutral taxation is to be preferred as a benchmark until such time as analysts are able to identify optimal departures from neutrality in real world policy settings, and until such time as administrative capacities are equal to the task of operating necessarily complicated optimal tax structures. In both developed and developing countries that time will not likely arrive before the 21st century.

7) Transferability of Lessons

The tax reform experiences surveyed in this paper suggest that lessons tend to be transferred from country to country frequently and with some rapidity. The appropriateness of such transfers is, however, another question.

In the first two decades of postwar history, the direction of transfer was largely from developed to developing countries. This may account for the strong emphasis upon income taxes in most early LDC reform episodes. Arguably, some wrong lessons were transferred, as advisors from wealthy countries - and LDC officials returning from study abroad - tended to prescribe reforms more suitable to highly industrialized societies than to low-income nations with low levels of literacy and even more lowly paid tax collectors.

Beginning in the early sixties, significant lessons learned in developing countries began to be transplanted to other LDCs. Some of these lessons proved instructive; particularly those learned about the

VAT in Brazil and Uruguay beginning in 1968. Within two decades, more than 40 LDCs had adopted one or another form of VAT, and several others were considering the tax in 1987. As noted earlier, the tax has enjoyed a remarkable degree of revenue success in all but two or three instances where it has been adopted.

A reading of lessons from experience in tax reform in the post-war period, then, argues for greater selectivity in deciding which lessons merit transfer in any given case, and considerable skepticism over exaggerated claims made for this or that tax innovation or this or that reform strategy. Tax rate reductions may promote growth in some settings; they may predispose a country to ruinous inflation and consequently low growth in others. Marked shifts toward heavier reliance upon indirect taxes may be advisable in some countries but unnecessary in others, particularly those with rent-generating export sectors that are easily accessible to the tax administration.

The differences, after all, between the over one hundred developing countries are at least as striking as any similarities between them. Even so, two lessons appear to be almost universally valid. First, tax systems are best suited to the task of raising revenues, and have not proven well suited as means of achieving other objectives. Second, successful tax policy requires that tax administration be everywhere treated not as a peripheral, but a central question in tax reform.

FOOTNOTES - TAX REFORM

[1] For a characterization of revenue, distributional and economic goals in recent U.S. tax reform, see McLure, in Gillis forthcoming, and McLure and Zodrow (1987).

[2] See Shoup (1949).

[3] Shoup (1959).

[4] Musgrave and Gillis (1971).

[5] Shoup (1970).

[6] Harberger, forthcoming in Gillis, editor, Tax Reform.

[7] Musgrave et. al. (1981).

[8] Gillis (1985).

[9] Bahl, forthcoming in Gillis, editor.

[10] National Tax Reform Commission, Final Report (Dec. 31, 1986).

[11] Kaldor, Indian Public Finance, 1956.

[12] Report of the Taxation Inquiry Commission, Colombo (1968).

[13] Shoup (1965) Tax System of Brazil (Vargas).

[14] Harberger, in Gillis, forthcoming.

[15] Shoup (1970) p. 155. (Text)

[16] Nicholas Kaldor, Indian Tax Reform (New Delhi, 1956).

[17] Casanegra Janchter (forthcoming in Gillis, Shoup, Sicat, editors).

[18] Aside from Brazil and Uruguay, 20 nations reformed sales taxes by switching from cruder forms of sales tax (including manufacturers sales taxes, multiple-stage cascade taxes and excise-like systems) to value-added taxes extending through the retail stage. These include 1970: Ecuador; 1973: Bolivia; 1975: Chile, Costa Rica, and Argentina; 1976: Honduras; 1977: Korea and Panama; 1980: Mexico; 1982: Peru, Nicaragua, and Haiti; 1983: Guatemala; 1984: Colombia, Dominican Republic, Madagascar; 1985: Turkey; 1986: Niger, Portugal, and Taiwan. Harberger, forthcoming.

[19] Further, in virtually all nations using the VAT, the tax has been of the consumption rather than the "income" type, has been collected using the tax credit mechanism, and has been imposed on the destination principle. Only Colombia and Argentina fully utilize the "income form" of VAT, wherein taxes collected on purchases of capital equipment cannot be credited from taxes due on sales although both Turkey and Finland allow less than full credit for taxes paid on capital goods. (Gillis, Shoup, Sicat, forthcoming).

[20] Harberger, forthcoming.

[21] About two-fifths of the income tax section of the Venezuelan report of 1959 was given over to administration of the tax. (Shoup, Venezuela)

[22] One authoritative source maintains that "institutional reform in both the content and the administration of the tax laws took place in almost every year after 1960. (Bahl, Kim and Park, 1986, p. 45)

[23] Shoup, "Japan" forthcoming in Gillis, Tax Reform.

[24] Shoup, "Japan," forthcoming in Gillis. More precisely, revenue enhancement was not a major goal for tax reform at the national level in occupied Japan. However, the prefectures were chronically revenue short, and the abortive prefectural VAT was developed to bolster their revenues.

[25] Shoup (Brazil) 1987.

[26] Shoup (Liberia) 1970.

[27] Musgrave et. al. (1981).

[28] Total tax revenues as a percent of GDP in Indonesia were 25 percent of GDP in 1981, but non-oil taxes were less than 7 percent. Inasmuch as government expenditures were nearly 25 percent of GDP, any significant weakening in oil prices from the early 1981 peak of $40 would create major demands on non-oil taxes, even if government spending were reduces by as much as one-third.

[29] Shoup (Venezuela, 1959 and Shoup (1987). As in Indonesia a quarter century later, a major goal of the Venezuela reform proposal was to enable the tax system to be ready to raise substantially greater revenues from non-oil tax sources once oil revenues began to decline.

[30] Bird, Taxation and Development.

[31] William Ascher (1967), p. 40-44.

[32] Perry and Cardenas (1986), p. 43 and p. 283.

[33] Musgrave and Gillis (1971), p. 18-20.

[34] For example see Nicholas Kaldor, 1967.

[35] Tanzi and Casanegra (1987) p. 3.

[36] See Gillis et. al., Economics of Development, 2nd edition, 1987, and references cited therein.

[37] Bird and Dewulf (1975).

[38] Kaldor, Foreign Affairs; Kaldor, Indian Tax Reform.

[39] Shoup (Venezuela) 1959, p. 60-65.

[40] Musgrave and Gillis (1971).

[41] Shoup, Liberia.

[42] Gillis and McLure (1978), Colombia.

[43] Distributional neutrality in the U.S. proposals is discussed in McLure and Zodrow, The Journal of Economic Perspectives (1987).

[44] Musgrave et. al., p. 115 (Bolivia).

[45] National Tax Reform Commission, Ch.1, p. 16.

[46] Bird, "Tax Reform" 1987a.

[47] Gillis et. al., 1978, Musgrave et. al., 1981.

[48] The early history of Brazilian tax incentives is addressed in Hirshman (1963).

[49] Musgrave and Gillis (1971).

[50] Pakistan Tax Reform Commission (1986).

[51] Bahl, Jamaica.

[52] Musgrave et. al., p, 461-465.

[53] Gillis, 1986.

[54] Bahl, (1987), p. 11-12.

[55] American Chamber of Commerce of Bolivia, "Tax Reform Law".

[56] Bahl, Kim and Park.

[57] McLure (Colombia 1987).

[58] Gillis et. al., 1987, p. 263-264.

[59] Richard Bird, "Tax Reform" (1987a), p. 1.

[60] Gillis, et. al., 1987, p. 265.

[61] Gillis and McLure, 1978, p. 253-255.

[62] Gillis, Shoup, Sicat, 1987, p. 7.

[63] International Monetary Fund (1986).

[64] Bird, Tax Reform, 1987, p. 10.

[65] Colombia already had a crude VAT in 1974.

[66] The VAT as a percentage of GDP was significantly lower in 1983 than in 1974.

[67] Shoup, Japan (1987), p. 1, p. 22.

[68] Martin Bronfenbrenner and Kiichuro Kogiku, (1957)p.242.Part I.

[69] Vito Tanzi, (1969).

[70] Shoup, Venezuela, p.21.

[71] The "Please effect" argues that tax increases obstensibly intended to increase public savings may, and often do, result in less, not more total domestic savings, because the government MPC out of higher tax revenues may exceed the private sector's MPC out of income extracted by taxes (Please, 1967).

[72] Bird and Dewulf, 1973.

[73] Gillis and McLure, 1978, p. 233-258.

[74] Bronfenbrenner and Kogiku, 1957 (Appendix LA)

[75] Shoup, "Japan" (1987) p. 43

[76] Marsden, Keith, "Taxes and Growth" (1983)

[77] Harberger (1980)

[78]Hartman (1983), Summers (1985).

[79]See for example, Ballard, Shoven, and Whalley, 1985, "General Equilibrium"

[80]For a survey of modern theories of optimal taxation, See Auerbach (1985)

[81]But neutral taxes are not necessarily "efficient" or "optimal" taxes.

[82]This is because under a tax-credit type of VAT, taxes paid by firms on purchases are deductible from taxes due on sales. Except for sales to the final consumer, exemption from the VAT is generally detrimental to the firm's interests. This is because while an exempt firm pays no taxes on its sales, it still pays taxes on its purchase. Any firm purchasing from an exempt firm will have, on that account, no taxes to credit against its sales, and products made by the exempt firm will ultimately bear not less, but more VAT, than would be the case without the exemption.

[83] Ascher, "Risk," (1987) p. 40-44.

[84] Bronfennbrenner and Kogiku, "Confessions of a VAT Man".

[85]Information graciously supplied by Anne O. Krueger.

[86] Bronfennbrenner and Kogiku, (1957b) p. 357-358, L. C. James (1987), p.3, p.26.

[87] James, p. 3-5.

[88] c.f. McKinnon (1973), and Shaw, (1973).

[89] Gillis, (1985, p. 251-252).

[90] Information graciously supplied by Anne O. Krueger.

Bibliography

"Tax Reform"

Ahmad, E. and Stern, N.H., Taxation for Developing Countries" in Hollis B. Chenery and T.N. Srinivason editors, Handbook of Development Economics (forthcoming).

American Chamber of Commerce of Bolivia, "Tax Reform Law: An Explanation of its Contents," May 1986.

Ascher, William, "Risk, Politics and Tax Refrom: Lessons From Some Latin American Experiences" (Draft Manuscript, Nov. 1987, pp. 40-45).

Auerbach, Alan (1985) "The Theory of Excess Burden and Optimal Taxation", in Auerbach and Feldstein, Editors, Handbook of Public Economics (North-Holland)

Bahl, Roy, (1987a) "Tax Reform in Jamaica: Ececutive Summary" (Syracuse University, Draft, Sept.)

Bahl, Roy; Kim, Chuk Kyo, and Park, Chong Kee, Public Finances During the Korean Modernization Process (Cambridge, Council on East Asian Studies, Harvard University, 1986).

Ballard, C.V., Shoven, J.B., Whalley, J., (1985) "General Equilibrium Computations of the Marginal Welfare Costs of Taxes in the United States", American Economic Review March, Vol. 75 #1 p. 128-139.

Bahl, Roy (1987b) "Jamaican Tax Reform", Paper prepared for CIDR Project, Lessons From Tax Reform in Developing Countries, Duke University, November.

Bird, Richard (1970) Taxation and Development: Lessons From The Colombian Experience (Cambridge, Harvard University Press).

Bird, Richard, (1974) Taxing Agricultural Land in Developing Countries (Cambridge, Mass., Harvard Univ. Press.

Bird, Richard, (1987a) "Tax reform in Developing Countries" Draft Manuscript, April.

Bird, Richard, (1987b) "The Administrative Dimension of Tax Reform in Developing Countries" Paper prepared for CIDR Project, Lessons From Tax Reform in Developing Countries, Duke University, August.

Bird, Richard, and Dewulf, Henry, (1975) "Taxation and Income Distribution in Latin America: A Critical View of Empirical Studies" IMF Staff Papers 20, November.

Bronfennbrenner, Martin, "Confessions of a VAT Man" (Unpublished, Aoyama Gakiun University, Japan, 1986.).

Bronfennbrenner, Martin and Kogika, Kiichiro, (1957) "The Aftermath of the Shoup Tax Reforms, Part I", National Tax Journal, 10 p. 236-254.

Bronfennbrenner, Martin, and Kogika, Kiichiro, (1957) "The Aftermath of the Shoup Tax Reforms, Part II" National Tax Journal, 10 p. 345-360.

Casanegra-Janchter, Milka (1986) "Problems of Administering a Value-Added Tax in Developing Countries: An Overview", forthcoming in Malcolm Gillis, Gerardo Sicat and Carl Shoup, The Value-Added Tax in Developing Countries.

Gillis, Malcolm, (1985) "Micro and Macroeconomics of Tax Reform: Indonesia" Journal of Development Economics 19, p. 221-254.

Gillis, Malcolm, "The VAT and Financial Services (1986) forthcoming in Malcolm Gillis, Carl Shoup and Gerardo Sicat, The Value-Added tax in Developing Countries.

Gillis, Malcolm, (1986) "Worldwide Experience in Sales Taxation: Lessons for North American Policy Sciences 19, 125-142.

Gillis, Malcolm and McLure, Charles E. Jr., (1978) "Taxation and Income Distribution: The Colombian Tax Reform of 1974", Journal of Development Economics, 5 p. 233-250.

Gillis, Malcolm et-al, (1978) Taxation and Mining: Non-Fuel Minerals in Bolivia and Other Countries (Cambridge, Mass. Ballinger Press)

Gillis, Malcolm; Perkins, Dwight; Ruerrer, Michael, and Snodgrass, Donald, (1987) Economics of Development (New York, Norton).

Gillis, Malcolm; Shoup, Carl and Sicat, Gerardo, (forthcoming) The Value-Added Tax in Developing Countries.

Hirshman, Albert, (1963) Journies Toward Progress, (Baltimore, Johns Hopkins Press).

Harberger, Arnold C., (1980) "Vignettes on the World Capital Market" American Economic Review, Papers and Proceedings May, p. 331-337..

Harberger, Arnold C., To be cited: Paper on Chile, Argentina, Mexico and Indonesia.

International Monetary Fund, Government Finance Statistics, 1985 (Washington, IMF, 1987).

James, J.C., (1987) Japanese Tax Policy in the Wake of the Shoup Mission (Cambridge University, Dissertation for Part Two of the Tripos in Oriental Studio, Kings College).

Kaldor, Nicholas, (1956) Indian Tax Reform (New Delhi).

Kaldor, Nicholas (1967) "Will The Under-Developed Countries Ever Learn To Tax?" Foreign Affairs, ___ ___.

Mclure, Charles E. Jr., (1987) "Lessons for LDCs of Income Tax Reform in Developed Countries", Paper prepared for CIDR Project, Lessons From Tax Reform in Developing Countries, Duke University.

McLure, Charles E. Jr. and Zodrow, George R., (1987), "Treasury I and the Tax Reform Act of 1986: The Economics and Politics of Tax Reform", The Journal of Economic Perspectives, Vol. 1, No. 1, Summer; p. 37-58.

McLure, Charles E. Jr., "Colombian Tax Reform Through 1986" (Tentative Title).

Marsden, Keith, (1985) "Why Asia boomed and Africa Busted", Wall Street Journal (June 3).

Marsden, Keith, (1983) "Taxes and Growth", Finance and Development.

Musgrave, Richard and Gillis, Malcolm, (1971) Fiscal Reform For Colombia, (Cambridge, International Tax Program.

Musgrave, Richard, (1981), et-al Fiscal Reform in Bolivia (Cambridge, International Tax Program.

National Tax Reform Commission of Pakistan, Final Report (1986), Islamabad, Dec. 31, 1986.

Perry, Guillermo and Cardenas, Mauricio, (1986), Diez Anos de Reformas Tributarias en Colombia (Bogata, Fedesarrollo).

Please, Stanley, (1967) "Savings Through Taxation: Reality or Mirage", Finance and Development 4, #1, March.

Shoup, Carl S. (etal), (1949) Report on Japanese Taxation by the Shoup Mission (Tokyo, Supreme Commander for the Allied Powers) 4 volumes.

Shoup, Carl S. (1959) The Fiscal System of Venezuela (Baltimore, The Johns Hopkins Press).

Shoup, Carl S. (1965) The Tax System of Brazil (Rio de Janeiro, Fundacao Getulio Vargas).

Shoup, Carl S. (1969) Public Finance (Chicago, Aldine Publishing).

Shoup, Carl S. (1970), The Tax System of Liberia (New York, Columbia University Press).

Shoup, Carl S. (1987a) "The Tax Mission to Japan 1949-50", (Paper prepared for CIDR Project, Lessons from Tax Reform in Developing Countries, Duke University), Draft.

Shoup, Carl S. (1987b) "The Tax Mission to Venezuela 1958-59" (Paper prepared for CIDR Project, Duke University) Draft.

Shoup, Carl S. (1987c) "The Tax Mission to Liberia 1969-70", (Paper prepared for CIDR Project, Duke University), Draft.

Shoup, Carl S. (1987d) "The Shoup Report on the Tax System of Brazil, 1964", Paper prepared for CIDR Project, Duke University). Draft.

Summers, Larry (1985) "Tax Policy and International Competititveness", (Cambridge, Mass. Harvard University). (Manuscript).

Tanzi, Vito, (1969) The Individual Income Tax and Economic Growth: An International Comparison (Baltimore, Johns Hopkins Press).

Tanzi, Vito, and Casanegra, Milka, 1987, "Presumptive Income Taxation: Administrative, Efficacy and Equity Aspects" (Washington, IMF, Working Papers WP/87/54.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

IDE

Banco Mundial

Jueves, 6 de abril de 1989

Sesión 9

11:15 - 12:15

Tópico: Reforma de las Empresas Públicas

Conferencista: Sr. E. Chaparro (Banco Mundial)

Comentarios: Sr. Zenk (KFW - Banco de Desarrollo del Gobierno Alemán)
Sra. N. Barry (Banco Mundial)

Lectura Requerida:

1. **Vernon**, Raymond, "Economic Aspects of Privatization Programs", The Economic Development Institute of the World Bank. Washington, D.C., March, 1987.

2. **Nair**, G., and **Filippides**, A., "How Much do State-Owned Enterprises Contribute to Public Sector Deficits in Developing Countries -- and Why?", Background Paper for the 1988 World Development Report, World Bank, Washington, D.C., 1988.

3. **Killick**, T., and **Commander**, S., "Privatisation in Developing Countries - A Survey of the Issues", in Privatisation in Less Developed Countries by **Cook**, P., and **Kirkpatrick**, C., pp.91-124, St. Martin's Press, New York, USA, 1988.

Lectura Opcional:

4. **Ali Ayub**, Mahmood, and **Hegstad**, Sven Olaf, "Public Industrial Enterprises -- Determinants of Performance", Industry and Finance Series, Volume 17, The World Bank, Washington, D.C., December, 1987.*

5. **Vuylsteke**, Charles, "Techniques of Privatization of State-Owned Enterprises" Volume I, World Bank Technical Paper Number 88, The World Bank, Washington D.C., July 1988.*

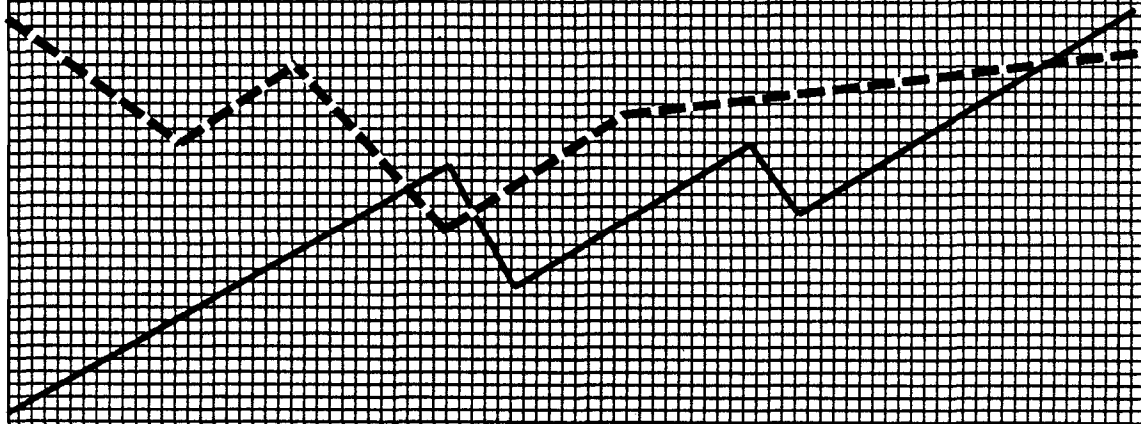
6. **Nankani**, Helen, "Techniques of Privatization of State-Owned Enterprises", Volume II, World Bank Technical Paper Number 89, The World Bank, Washington, D.C., July, 1988.*

* Distribuido por separado.

345/009

Economic Aspects of Privatization Programs

Raymond Vernon



EDI

The Economic Development Institute

The World Bank
March 1987

Economic Aspects of Privatization Programs

In a considerable number of developing countries, governments are reviewing their policies with respect to state-owned enterprises. In some cases, these reviews are limited in scope, covering such subjects as methods of operation and systems of oversight and control. In others, however, the issue of continued ownership by the state is under consideration.

This paper addresses those cases in which the question of state ownership is under consideration. Its purpose is to help the decisionmaker think about the economic aspects of the privatization option, an option that includes not only the sale of equity in state-owned enterprises to the private sector, but also the liquidation of such enterprises in whole or in part.

The review that follows has more application to market economies than to economies that severely limit private ownership of the means of production. However, the analysis makes no initial assumptions about the relative economic merits of public versus private ownership, for instance, that privately-owned enterprises are more efficient or that state-owned enterprises are more responsive to the nation's economic goals. In most developing countries, the performance of private enterprises rarely approaches the ideal of a competitive firm in an efficient market. Instead, factor markets and product markets are characteristically inefficient in varying degrees and are likely to remain so, and government policies greatly affect the enterprises' performance and financial profitability. Nor do state-owned enterprises often approach any of the ideals that justify their existence, such as behaving unambiguously as agents of the state. In practice, such enterprises are commonly used to serve the special interests of the managers, of labor, of some given group of favored consumers, of a selected region, or of a political party. Thus, when using economic criteria to choose between state ownership and private ownership, comparing the characteristics of the ideal state-owned enterprise and the ideal private enterprise is misleading. Instead, one is obliged to compare the performance that can be reasonably expected of each type of enterprise in the particular circumstances of each developing country.

The Need for Review

Before turning to a consideration of the key issues, however, one can reasonably ask whether the question of privatization is likely to arise at all in a setting that eschews ideological generalizations and that approaches privatization on a case-by-case basis. On reflection, the answer is fairly straightforward. Even when governments make no major assumptions about the relative merits of public

and private ownership, they would still be wise to consider from time to time whether the privatization of individual enterprises is appropriate.

The usefulness of such periodic reconsideration becomes obvious if one considers why governments in developing countries acquired or created state-owned enterprises in the first instance. Those initial motivations have followed some fairly well-defined patterns.

1. ***Speeding industrialization.*** Economic historians such as Gershenkron have demonstrated that in the industrialization process, latecomer countries have typically found it useful to use the powers of the state to establish some of the critical building blocks of early industrialization. At that early stage, an entrepreneurial class with the ability and willingness to mobilize capital and technology is not yet in place. That at least was the early history of czarist Russia, Germany, and Japan as well as the Republic of Korea, Brazil, Mexico, the Philippines, and various other countries. Eventually, however, entrepreneurs in the private sector increased their risk-taking and managerial capabilities sufficiently to raise the question whether the use of state resources in these key industries was still optimal.

2. ***Regulating "natural" monopolies.*** Early in the development process, many essential industries have the character of natural monopolies. Enjoying large potential economies of scale, these industries can only operate at low cost if competition is restrained. Telecommunication companies, railroads, and electric power utilities, among others, fall in this class. But history has demonstrated that as national demand increases, competition can be introduced without adding to the cost base; and as industrial technology changes, potential economies of scale are sometimes dramatically reduced, a change that has occurred, for example, in the steel and telecommunications industries. Moreover, even when industries continue to exhibit some of the attributes of natural monopolies, regulation is not to be excluded as a desirable alternative to ownership; and the government's capacity to mount an effective regulatory regime may have grown from the time when the state-owned enterprise was first established. When such changes occur, the time may be ripe for reconsidering the state's ownership of the enterprises that were created in earlier circumstances.

3. ***Exercising monopoly or monopsony power.*** Developing countries that were large buyers or large sellers of commodities in international markets often created state-owned enterprises to be able to exercise their monopoly power in such markets more effectively. That has been an especially pressing need for ex-colonies, which on independence found their commodity trade largely in the hands of foreign-owned firms. Countries like Ghana, which once dominated world cocoa markets, and Brazil, which once held a similar position in world coffee markets, are illustrative. But market structures change, and when they do, optimal behavior changes as well. At some stage, as markets broaden and become less concentrated, the greatest rewards may go to buyers and sellers that can move swiftly and flexibly, rather than to those that attempt to exercise monopoly power. At that point, it may be worth reconsidering whether the state-owned enterprise is the most appropriate form of enterprise.

4. ***Containing foreign ownership.*** Governments in developing countries have frequently nationalized enterprises that were subsidiaries of multinational enterprises, hoping thereby to increase their ability to manage their national economies or to increase their rents from such enterprises. In some cases, those hopes have been realized; in others not. When countries have not achieved their objectives, the reasons for failure have been of various kinds. In the case of copper and oil, for instance, world market conditions and the industry structure changed dramatically. In other cases, countries underestimated the difficulties of managing the subsidiary outside of a multinational enterprise network. Whatever the reasons, a periodic review of such cases is obviously indicated.

5. ***Restructuring the economy.*** Developing countries typically are required to restructure their economies as world markets shift and comparative advantages change. Simple, labor-intensive products, such as textiles and toys, often give way to more complex lines, such as foundry products and plastics. In the process, governments often find themselves the unhappy owners of failed enterprises that formerly had been in the private sector. In such cases, the government's usual object is to ease the transition; to ensure that the redeployment of manpower and other resources is done with minimal shock and pain to the national system. These cases, by their nature, call for periodic review to determine whether the transitional purposes of the government's ownership are being realized.

6. ***Managers' initiatives.*** Some developing countries have been discovering that the managers of their state-owned enterprises have extended the business of their enterprises in various new directions, creating subsidiaries for the purpose. In several countries, that process of extension has markedly increased the size and scope of the state-owned sector. The managers' motivations in creating these new subsidiaries have been diverse. In some cases, the new entities have been the result of a process of vertical integration or of diversification, seemingly logical extensions of existing lines of business. In other cases, such as Pertamina in Indonesia, the motivation seems to have been a desire for empire building. In still others, especially in countries in which subsidiary financial and operating data have not been consolidated in the parent's statements, the subsidiaries have provided the basis for creative accounting, including the concealment of assets and profits or losses.

These are not the only reasons for the creation of state-owned enterprises in developing countries but they cover the bulk of the cases. They also illustrate the fact that any country that purports to maintain some semblance of a market economy is likely to find it useful to reconsider from time to time whether the original reasons for maintaining its state-owned enterprises are still valid. In such reconsideration, the critical economic criteria are likely to be the following:

What would be the effect of the privatization on efficiency in the use of the country's productive resources?

What would be the effect on increasing the stock of the country's productive resources?

What would be the effect on the country's income distribution?

What would be the effect in the short and medium term on the government's cash flow?

The Efficiency Criterion

The various factors that have given rise to state-owned enterprises in developing countries suggest that governments' objectives have not always been economic in nature; and that, even when the objectives are primarily economic, the economist's ordinary tools cannot always measure very well whether the sought-after goals are in fact being achieved.

Nevertheless, any review of state-owned enterprises is bound to consider centrally a number of issues in which ordinary economic criteria do have considerable relevance. Of these, the most basic issue is that of efficiency.

The Concept

In common usage, "efficiency" is not a very precise concept. For economists, however, efficiency has a fairly exact meaning and is measured in a fairly precise way, namely, by the amount of output that is derived from a given input. Efficiency is therefore increased if output rises without an increase in inputs.

The usual question in the minds of government officials is whether the efficiency generated by managers of a privately-owned enterprise is higher than that generated by managers of a state-owned enterprise. For the analyst seeking to answer that question, the problem is to determine whether, at a given cost of management, managers in private enterprises can obtain more output than managers in public enterprises from given inputs of capital, labor, and intermediate materials.

A demonstration that private enterprises are more efficient than state-owned enterprises in the narrow sense just defined is not, of course, a sufficient basis for privatization of the enterprise. Much depends on the reasons for the relatively higher efficiency of the private enterprise. Consider the following illustration:

> In the city of Lahore, people consider the small, privately-owned buses to be far more efficient than the oversized buses of the government transport authority with which they compete. The inefficiency of the government buses is largely due to sloppy maintenance and to corruption, including the stealing of spare parts and supplies. However, the efficiency of the privately-owned buses is achieved in part by some wildly reckless tactics in traffic that have been notorious for the deaths and injuries they have created.

In this case, it is evident the problem might be resolved by various policies other than privatization, including more effective policing of corruption and stealing, or more effective control of city traffic.

Nevertheless, privatization may prove to be the most relevant policy for increasing efficiency in some cases. It is easy to demonstrate that relatively small differences in efficiency can have decisive economic consequences that promise high payouts. Although efficiency may possibly be increased in a number of different

ways short of privatization, in this paper we shall concentrate on the privatization option, leaving the alternative possibilities to be explored elsewhere.[1] A key question, then, is whether a switch from public ownership to private can reasonably be expected to produce efficiency increases.

The Relationship to Profits

Economists have made repeated efforts to measure the relative efficiency of state-owned and private enterprises. Before summarizing their conclusions, it will help to clarify the relationship of efficiency to profit.

People think of profitable firms as efficient and of unprofitable ones as less so. One significant study in India demonstrated that even the most sophisticated observers, such as financial editors and business executives, tend to rate the relative performance of state-owned firms by their book profits. The Government of Pakistan, after carefully considering various alternative possibilities for rating and rewarding the performance of managers in state-owned enterprises, adopted a scheme in 1982 that in its original form based such rewards wholly on book profits. The same assumption that high book profits and good performance go hand in hand can be detected in many other countries. Yet the link between efficiency and book profits is actually very loose, especially in the conditions found in developing countries. The weakness in linkage stems principally from two factors.

One factor that weakens the linkage is coverage. Profit represents the reward to those that provide the enterprise with capital. Efficiency, however, refers to the output performance of all the productive factors employed in the enterprise, irrespective of whether the rewards go to lenders, to the government, or to the owners. Accordingly, assuming that the prices of the firm's outputs and inputs correctly reflect their social value, the firm's efficiency can be measured by its book profit plus interest paid plus taxes paid (minus subsidies received). That consideration alone means that measures of efficiency and measures of book profit may deviate considerably from one another.

The second reason for such deviations is implicit in the first. Wherever the prices of the firm's inputs or outputs are affected by monopoly, or by governmental restraints, such as price fixing or import restrictions, or by the ignorance of buyers or sellers, the profit figure contains elements unrelated to efficiency, and changes in profits are an unreliable guide to changes in efficiency. In such situations, the profits or the changes in profits may simply reflect a shift in monopoly power or in governmental policies. The vast changes in the profits recorded by state-owned oil companies during the 1970s and 1980s, for instance, were unrelated to changes in levels of efficiency. The increase in profits in the 1970s was largely due to an increase in monopoly power, and the subsequent decline in profits was largely the result of a weakening of that power.

Indeed, under the imperfect market conditions that prevail in developing countries, a genuine increase in efficiency does not necessarily produce an increase

---

1. See, for instance, Mary M. Shirley, *Bank lending for State-Owned Enterprise Sector Reform: Policies and Procedures*, draft, March 1987.

in profits. Instead, an increase in efficiency may open the door to demands from other claimants: from labor for an increase in wages, from suppliers for an increase in prices, from buyers for a reduction in prices, and even from the government for an increase in taxes. Accordingly, one has to penetrate beneath the statement of profits and losses to draw any conclusions about an enterprise's efficiency.

Relative Efficiency Measured

Of the various subjects to which economists have devoted attention in development planning, the measurement of efficiency stands high in the list. That issue arises in many contexts, not only in the choice between private and state ownership, but also in the choice between different technologies. Irrespective of the purpose, the problems of measurement are typically much the same. One such problem is how to compare plants producing the same final product that use different combinations of inputs in the production process, that is, capital, labor, intermediate products, and managerial skills. Such differences are commonly encountered in comparisons between private firms and state-owned firms. If economists could rely on prices to reflect relative values, such differences might not create a serious measurement problem. But economists are well aware that in developing countries, the relative prices of these factors offer no sure guide to their relative economic value. Distortions in interest rates, wage rates, and exchange rates complicate the problem of measurement.

The proposed solutions to such difficult questions need not concern us here.[2] Difficulties of this sort do, however, tend to limit the number of studies on the relative efficiency of private and state-owned enterprises. Moreover, most of the studies undertaken relate to enterprises in the mature industrialized countries.

Nevertheless, the studies so far conducted do point to some useful conclusions. One careful review, for instance, concludes cautiously that no general grounds exist for believing that managerial efficiency is any different in state-owned enterprises than in private enterprises.[3] Another review, drawing on some 28 studies of recent vintage, comes to a rather different conclusion. It distinguishes industries in which strong competitive conditions exist from other industries, and concludes that in competitive industries, private enterprises do out-perform state-owned enterprises.[4]

---

2. Those that wish to pursue the subject will find particularly useful F. L. C. H. Helmers, *Lecture Notes on Project Planning* (Washington, D.C.: EDI, April 1982). See particularly the bibliography, pp.93-95, and "Choice of Technology," pp. 162-183.
3. R. Millard, "The Comparative Performance of Public and Private Ownership" in Eric Roll (ed.) *The Mixed Economy* (London: MacMillan, 1982). See also William G. Tyler, "Technical Efficiency in Production in a Developing Country," *Oxford Economic Papers*, vol. 31 (Nov. 1979), pp. 477-495.
4. George Yarrow, "Privatization in Theory and Practice," *Economic Policy*, no. 2 (April 1984), pp. 373-375. See also Jonathan Aylen, "Privatization in Developing Countries," *Lloyd's Bank Review,* no. 163 (January 1987), pp. 15028, which concludes that market structure is more important than ownership in explaining performance.

The generalization that private firms are relatively more efficient than state-owned enterprises under highly competitive conditions is a reasonable enough assumption to guide policymakers in the absence of specific evidence to the contrary. In such markets, private enterprises are driven by the hope of profits and the fear of bankruptcy, while state-owned enterprises are not driven to the same degree. In monopoly situations, including public utilities, that distinction between state-owned and private enterprises does not operate with the same compelling force.

To be sure, strongly competitive markets are not very common in many developing countries, especially in industries in which state-owned enterprises are concentrated. Still, there may be important cases in which the assumption about the superior efficiency of private enterprises does carry operational significance. Notable among these cases are industries in which effective domestic competition may be possible, such as trucking services, as well as enterprises selling in competitive world markets, such as agricultural marketing boards or mining companies. In such instances, the efficiency criterion is likely to give a signal--albeit not a conclusive signal--pointing in the direction of privatization.

The Liquidation Alternative

Some governments, when measuring the efficiency levels of some state-owned enterprises, have discovered that the prospective value added by such enterprises would be negative. More precisely, once the inputs and outputs have been priced by their real opportunity costs, the enterprises' output has less value than the inputs required to produce the output. This is probably true of some of the refineries and petrochemical plants of the oil exporting countries, and some of the import-substituting plants in the metal processing industries.

Such a finding will not occur, of course, unless the industry concerned is enjoying a high measure of protection, as is typical of import-substituting industries, or a high degree of subsidy, as is commonly the case of raw-materials processing facilities. These conditions, however, can apply as readily to private enterprises as to state-owned enterprises, especially in countries in the early stages of industrialization, when they are still emphasizing the achievement of economies of agglomeration and increased efficiency through learning-by-doing. In such cases, the negative net value generated by the enterprise is not a result of public ownership, but of the policies of protection or subsidy. Whether the continuation of such policies is justified depends in part on the realism of the country's assumptions about anticipated increases in efficiency. Even where the possibilities of increasing efficiency do not exist, however, governments may be prepared to accept the losses implicit in negative value added to create jobs or to reduce their vulnerability to changes in the world markets for unprocessed materials. Where that is the case, the conclusion that the enterprise actually reduces the total product available to the economy will at least serve to raise the question whether the implicit cost of such operations is worth the results.

Increasing the Supply of Management and Saving

Although governments in developing countries are eager to increase the efficient use of the resources that they have at hand, they usually place even more importance

on increasing the supply of those resources as the means for increasing their growth rates. The resources most amenable to such increases are the supply of management and the supply of savings.

Management

Most economists recognize that if a nation's privatization program is to achieve its objectives, it must lead to an improvement in the management of the nation's productive resources. The implicit assumption--an assumption that is plausible in the conditions of many developing countries--is that the public sector is relatively handicapped in its ability to recruit managerial talent. Public pay scales may be limited; foreign managers may be unacceptable; and, especially in some countries of Africa and Asia, some residents may be barred from public employment on racial or other grounds. As a result, there may be an acute mismatch between managerial talent and productive capital. The public sector may have the capital for large-scale enterprises without the management to guide such enterprises, while the private sector has the managerial talent without the opportunity to apply that talent to large-scale enterprises.[5] In such cases, privatization may become a means of overcoming the mismatch.

Another channel by which a developing country might increase its supply of managerial talent is by using the strength of established state-owned enterprises to seed and support new private ventures. That process can be seen in a number of countries, including notably Brazil, where it takes a variety of different forms, including the admission of private partners to a joint venture with a state-owned enterprise. Possibilities of that sort, however, are only likely to exist in countries that have already managed to develop a cadre of relatively efficient and secure state-owned enterprises.

Still another channel for increasing the country's supply of management is by contracting for foreign management or by selling interests in state-owned enterprises to foreign firms that are prepared to provide qualified managers. These alternatives differ from the others in the sense that they involve an outflow of resources in payment for the management. The government will have to determine on a case-by-case basis whether the payment is worth the acquired management skills, an issue also relevant to the discussion that follows on the question of the appropriate sale price for equity in state-owned enterprises.

Savings

Privatization, according to the argument, may also add to the nation's total supply of savings, and hence of investment. The private sector may be willing to invest in the newly privatized enterprises, even though at the same time it would resist adding to national savings in other ways, such as by paying more taxes. Indeed, the eagerness with which private investors have financed private urban transport companies when allowed to do so illustrates that some privatization

5. Jonathan Aylen, "Privatization in Developing Countries," cited earlier, emphasizes this point.

projects may offer unusual opportunities for capital mobilization in developing countries.[6]

Gauging the effect of these transactions on the aggregate national supply of savings, however, is not a simple task. One has to be aware of how the purchases were financed. Funds that otherwise would have gone to national consumption or funds repatriated from abroad would add relatively unambiguously to the national supply of savings. But if private buyers diverted funds from other national investments or borrowed from national financial intermediaries in order to invest in the shares of state-owned enterprises, the implications for the supply of national savings would be much more ambiguous. Indeed, the risk would exist that the offerings of shares in state-owned enterprises had simply shifted a given amount of savings from use in the private sector to use in the public sector.

Tracing Income Distribution Effects

The effects on income distribution associated with any program of privatization are likely to be very complex, and may well be different in the short run than in the long. In general, any discernible shift is likely in the short run to be adverse to labor and to consumers and favorable to those who purchase the equity in the privatized enterprise.

The reasons for anticipating such shifts stem from the fact that state-owned enterprises cannot be sold unless they appear profitable to the buyer. How is that profitability to be achieved? In the short run, one cannot expect an increase in the efficiency of the existing workforce and plant to bring about the change. If the change does occur, it will more likely be the result of three factors, singly or in combination: a reduction in the workforce, thereby reducing labor's income; an increase in the prices charged by the enterprise, taxing the consumer; and a reduction in payments to the government, whether in the form of a reduction of interest payments, a waiver of tax obligations, or other measures.

Added to these three factors is the likelihood that the new equity owners will get their shares on bargain terms. Once a government has earmarked an enterprise for sale, it develops a considerable political stake in ensuring the success of the sale. In addition to lightening the fiscal load on the enterprise in various ways, such as forgiving some of the enterprise's debt, governments have sometimes facilitated purchases of the shares by deliberately underpricing the shares and by offering generous loans to prospective stock buyers. The buyers who have been in a position to exploit these opportunities, therefore, have sometimes been presented with a rare opportunity to capture a windfall profit.

Some of these measures, while shifting incomes in the short run, may nevertheless be highly constructive. In some instances, as in the case of gasoline and sugar, the products may have been underpriced when sold by a state-owned

6. Gabriel Roth, *Private Provision of Public Services in Developing Countries,* (New York, Oxford, London: Oxford University Press for the World Bank, 1987).

enterprise, and privatization may offer an occasion for a much desired adjustment. In other instances, however, as in the case of rural electricity, the results may be regarded as adverse. In any event, estimates of the short-run consequences should be part of the analysis accompanying any privatization project.

The longer-term effects of operations on income distribution, by their nature, are likely to be more obscure, however, some shrewd guesses may be possible, adding further to an understanding of the implications of the proposed undertaking.

Maintaining Fiscal Resources

Although some developing countries have been thinking of long-term efficiency implications when contemplating the possibility of privatization, others have been concerned with shorter-run implications of privatization, including the possibility of reducing the government's fiscal deficits or increasing its revenues. The effects of privatization upon government revenues, however, can be fairly complex. To see why, we will trace through some of the implications of such transfers.

Tracing the Flows

One problem that has driven governments to give serious consideration to divesting themselves of state-owned enterprises is that many of these enterprises have chronically generated large cash drains on the central government. In the 1970s, when confronting such drains, governments commonly authorized the enterprises to borrow in foreign capital markets or provided advances to those enterprises from the national banking system or from direct appropriations. The fiscal stringency of the 1980s, however, has dramatically increased the opportunity costs of providing the needed funds. Governmental borrowing has dried up, partly because of the increased caution of private lenders and public borrowers, and partly because of the conditionality provisions laid down by official lenders.

In many instances, however, governments have not felt free to liquidate the enterprises creating the drain; some of the enterprises have been public utilities, such as railroads, power plants, and airlines, while others have been viewed by governments as vital for maintaining employment levels. Nor have governments been eager to undertake the changes in public policy, such as raising prices or reducing labor costs, that might reverse the case flow. Hence, governments have widely entertained the possibility of privatization.

The prime difficulty, of course, has been that selling enterprises with persistent negative cash flows, except in very unusual circumstances, is not easy. Accordingly, as was observed earlier, governments often give privatized enterprises the opportunities to reduce their payment to labor, increase their income from consumers, and reduce their payments to the government itself. In addition, governments sometimes even lend money to prospective buyers in order to help them finance their purchases of stock in the privatized enterprise. Such changes must be taken into account when measuring the net flow of resources to the government that is associated with the privatization.

Measuring the Flows

Remember that an enterprise's book profits are no reliable guide to cash flows. To be sure, book profits determine the size of the dividends available to the government as owner. The flow of funds to the government, however, includes not only dividends, but taxes, interest, and principal repayments; and such flows are reduced by subsidies and added capital investments from the government. The flows so calculated are likely to differ considerably from book profits.

From the government's viewpoint, three rather distinct cash flow effects are likely to be of interest: the immediate cash effects attendant on the sale, the changes in future cash flows directly associated with the enterprise's operations, and the changes in future cash flows arising out of the indirect consequences of the sale.

The amount of cash actually transferred at the time of sale is a one-time infusion; an amount equal to the sale price of the firm's equity less various deductions. The deductions include payments by the buyer in forms other than cash, as well as the expenses of sale. The latter include the commissions to distributors and the cash costs associated with preparing the properties for sale. The net cash effect would presumably be positive from the government's viewpoint; but some experiences with privatization to date indicate that even at the initial stage, the cash flow effects may be negative.

Any estimate of the direct cash effects of the sale subsequent to the initial phase will require a calculation of two future streams. One represents the so-called counterfactual case, that is, what would have happened to the government's cash position in the absence of a sale, while the other represents the stream to be expected in light of the sale.

1. For the counterfactual case, we must estimate the stream of cash transfers between the enterprise and the state that would have occurred if the enterprise had remained in the government's hands. This includes the dividends, taxes, and debt service flowing from the enterprise to the government, if any, minus the infusions of new money flowing from the government to the enterprise.

2. For the expected stream after sale, we must estimate the stream of cash payments likely to be made by the private enterprise to the state after its sale, including taxes and debt service.

The difference between these two streams represents the change in the government's cash position achieved as a direct result of the sale of the enterprise to the private sector.

Several points are worth making about such estimates. Critical though such estimates may be in determining the cash consequences of any sale, they cannot escape being highly speculative in character. For instance, the analyst is obliged to speculate on the differences in the pricing practices of the enterprise both in the counterfactual case and in the case of private ownership, as well as the differences in the payments to labor and in the payments to the government. Some cases will arise

in which the answers to such questions are overwhelmingly clear; but for the most part, the analyst cannot avoid a considerable amount of speculation.

In the long run, the most important cash effects are likely to come from the indirect consequences of the decision to privatize. Such decisions cannot fail to affect aggregate productivity, factor and product prices, and income distribution in the national economy. These effects, in turn, will reflect themselves in the government's ability both to tax and to borrow. They will also be reflected in other governmental programs, especially programs with social welfare objectives, such as income maintenance. Long-run projections, therefore, inescapably involve speculation about the more general effects of privatization.

The Appropriate Price

If the distribution of income within the country were not of concern, and if the prospective private purchasers did not include foreigners, the price issue might be of little importance. In such circumstances, an "inappropriate" price would simply create a windfall for one sector of the economy at a cost to all the rest. For the same reason, one could overlook the fact that the private buyer was recouping the purchase price from consumers, or from labor, or from the government itself by exploiting the enterprise's market power to raise prices, to lower wages, or to demand subsidies.

The observations above, however, rest on some substantial "ifs." Few governments are impervious to the effects of their policies on income distribution; accordingly, the sale price of their assets, even when sold to domestic buyers, is not a matter of indifference. Besides, governments have had other considerations in mind when fixing the sale prices. One in particular has been the desire of governments to ensure that the public offering of stock will be successfully completed, a goal that has commonly led governments to price the offered shares at levels that seemed low by objective standards. The motivations behind that bias are complex. They are partly to avoid the political repercussions of a failed offering and partly to whet the public's appetite for future offerings. In either case, they sometimes generate a windfall for those that are in a position to acquire the shares.

A variant on this issue arises when the government hopes to persuade its nationals to repatriate their foreign savings as part of a privatization policy. In such situations, the risk-adjusted opportunity cost as seen by the prospective buyers could be very high. Some of the foreign debt swap programs that a number of countries have initiated recognize that fact. Some of those programs allow nationals with foreign savings to repatriate those savings under formulas that are equivalent, in effect, to using preferential exchange rates. The government may justify such preferences in various ways, including the rationalization that the preference simply represents a correction for an overvalued exchange rate that would otherwise apply to the transaction. But if enough transactions of that sort take place, their effects on income distribution would be palpable.

The question of an appropriate sale price becomes especially relevant when the prospective buyers are foreigners. In such cases, as in cases involving repatriation by nationals, one of the objects of the exercise is to attract foreign funds. But in the case of foreign buyers, the servicing of such funds in subsequent years will involve

an outflow. One of the imperatives for policymakers in such cases is to understand the implications of any sale to foreigners for future flows of foreign exchange.

Like other required analyses mentioned earlier, an adequate analysis of foreign exchange flows is not easy. As usual, it requires estimates and comparisons not only for the likely situation in the future, but also for the counterfactual case. In short, we must know not only what flows would occur if the sale were consummated, but also what flows would occur if the sale were not consummated. The difference between those two states is the critical measure. Studies of this issue have characteristically been incomplete and slipshod, usually providing results that tend to exaggerate the adverse drain associated with foreign investment.[7]

Nevertheless, the issue of a prospective foreign exchange drain is a real one. To be sure, under perfect competitive conditions, the problems of servicing the foreign investors would not arise. By definition, the enterprise in which the foreigner had invested would generate the funds necessary to service the investment either directly or indirectly. But as noted earlier, many of the markets in which state-owned enterprises operate in developing countries are monopolistic in structure or are protected by high import barriers.

The question is especially relevant because of the terms that may be required to attract foreign investors. Like national investors, foreign investors will not be attracted unless their prospective yield exceeds their risk-adjusted opportunity costs. Although the idea of a risk-adjusted opportunity cost is an abstraction that can easily be taken too seriously, especially where foreign investors are involved, nevertheless it helps to explain why different terms may be required to attract foreign buyers than domestic buyers.

Conclusions

The variables that are involved in weighing the merits of privatization in a particular case are highly diverse. Some variables lend themselves to formal measurement, such as the measurement of cash flow effects for the government in the short run; but some do not, such as the cash flow effects in the longer run. Still, formal attempts to measure the efficiency effects, aggregate resource effects, and cash flow effects of any proposed privatization may well pay off, if only by identifying the critical assumptions on which the decision depends.

Policymakers may take some comfort in the fact that the individual cases they confront will often prove less difficult to decide than these comments may suggest. For instance, enterprises that produce negative added value and promise to continue to do so for long periods of time are presumptively targets for liquidation.

---

7. For one of the few careful studies of this topic, see G. C. Hufbauer and F. M. Adler, *Overseas Manufacturing Investment and the Balance of Payments* (New York: Arno Press, 1976), a reprint of a 1968 study of the U.S. Treasury Department.

Moreover, rules of thumb based on experience and on research in other countries may sometimes be sufficient to create a basis for a decison. Illustrative of such rules is the observation that private enterprises tend to be more efficient than state-owned enterprises in markets that are highly competitive. The world's experience with state-owned enterprise to date allows us to identify a number of such propositions bearing on the question of privatization, propositions that we propose to identify in the papers that follow.

Privatisation in Developing Countries: A Survey of the Issues

by

Tony Killick and Simon Commander

Appears in Privatisation and Developing Countries edited by P. Cook and C. Kirkpatrick. Harvester Press, Brighton, 1988 with a revised version appearing in World Development, November, 1988.

The current emphasis on privatisation in the modification of economic policy priorities does not exist in an intellectual vacuum. It can rather be seen as a part of a more general rehabilitation of the use of prices and markets as a mechanism for the allocation of resources, and of an intellectual disillusionment with more Keynesian - and more interventionist - approaches to economic management. In the face of a prolonged downturn in economic activity and adverse changes in the economic environment, many developing countries have responded by reappraising the efficacy of existing policies. At the centre of this has been a re-examination of the economic role of the state and this paper is about one aspect of this process. Although it is suggested below that the issue of public versus private ownership cannot satisfactorily be viewed in isolation from a wider range of issues, the debate over privatisation can be seen as a particularly stark illustration of a reversal in policy preferences that has marked the 1980s.

The paper has five main sections. The first background section attempts to isolate some of the basic issues and to describe the context in which these issues have come to the fore. The second section takes up questions relating to the shift in values and objectives underlying the privatisation movement and this is followed by a third section examining questions relating to the instrumental efficiency of privatisation. Section 4 considers the modalities of privatisation, particularly in the form of divestiture, and the constraints on their realisation. The concluding section pulls some of the loose ends together and outlines likely future developments with regard to this policy option.

1. BACKGROUND

Debate about the size of the public sector is a recurrent topic in economic policy making circles, not because anyone is trying any more to define an optimal size for the public sector but because the very scale of that sector necessarily means that it has a strong governing role in most economies - a factor of particular significance in most developing countries.

Even though most of the arguments for reductions in the relative size of the public sector make very strong assumptions regarding the nega-

the results of such perceived over-extension, surprisingly little is known, or, more exactly, measured, with regard to the actual size of the public sector. At a global level public enterprises have been estimated to account for around 10% of GDP on average in both developed and developing economies. However, the role of public enterprises in the economy has been generally much greater in sub-Saharan Africa when measured both in production and financial terms.[1] Arguments for reductions in that sector's size commonly bandy about discrete figures for a highly truncated set of cases. A recent paper concerned largely with the role of State-owned enterprises in developing countries states that "by 1980 such enterprises were typically producing 10-20% of GDP" (Berg, 1985, p.1). In fact, this measure is only available for a mere seven countries and it is by no means evident that these calculations are reliable. The point is simple. Measuring the size of the state sector and its aggregate role in the economy remains very poorly advanced. This is particularly true in the case of most developing countries. Poor transparency in national accounts further complicates any measurement of the phenomenon which, in theory, is being addressed.

Characteristically, the growth of the state sector that largely occurred in the period from the late 1950s through to the mid-1970s in many developing countries was distributed across a wide range of functions, from the augmentation of administrative systems to the enhanced provision of public services, such as health and education, as well as direct interventions in productive activity. While in some countries - particularly in West and East Africa - this involved some measure of expropriation or control over enterprises owned and run by entrepreneurs from the former colonial power or by localised racial minorities, much of the consolidation of the public sector occurred in areas where such activity had not been previously developed domestically. The widespread drive for import substitution, linked with a commitment to economic diversification and, in particular, the development of a manufacturing sector, was seen as having major implications for the role of the State in the economy as a whole. In countries such as India and Egypt where this path was vigorously pursued, the public sector has emerged as a major producer and employer; in Egypt possibly as much as a third of the labour force may currently be employed by the state.[2] In most other developing countries, however, the level of

import substitution that was attained was very limited, although on average between a third and a half of all modern sector employment has been accounted for by the state in Africa and Asia (World Bank, 1986A, p.21). In most of sub-Saharan Africa, the public sector's entry into manufacturing was limited. There, state intervention was more concentrated on the development of administrative machinery and institutions for the transfer of resources from the dominant agricultural sector to urban areas. The latter policy was conceptualised as financing development through forced transfers. In most cases, this actually amounted to financing a skewed distribution of consumption. At the same time, such institutions - the West African Marketing Boards are perhaps the most stark example[3] - failed to fulfil most of their basic service functions, accumulating instead large labour-forces, swollen budgets and, often, gigantic debts.[4]

Justifications for the creation of such public enterprises were derived not only from market failure and the need for economic diversification and for control over natural monopolies or strategic concerns, but also on overtly political grounds. At the more sophisticated end of the spectrum, such justifications referred to the supposed correlation between higher levels of state intervention and more equal distributions of income. However, where the post-colonial nation-state was a fragile entity, the growth of the state sector, with its patronage and employment possibilities, was seen as the glue that held the structure together (Bates, 1981). Reference was rarely made to exclusively economic arguments for justifying the growth in public activity.

Yet with the emergence of a more constrained trade and financing environment since the late 1970s, the same pressures that have been exerted on the public sector in the industrial countries have come to bear on most developing countries. Although in some, such as Malaysia and Togo, where a policy of selective privatisation has been implemented vigorously, in most the ideological enthusiasm that can be found in many of the advanced economies is largely absent, despite the relatively widespread disenchantment with the public sector. The fact that the privatisation question has now spread to many developing countries can, in part, be related to the increased importance of the Bretton Woods institutions and bilateral aid donors in total financial flows. With a hostile trade and financing environment facing most

developing countries policy-related or programme lending has become more pronounced. Whereas structural and sectoral adjustment lending accounted for under 0.6% of total World Bank loans in 1979/80, between 1979-86 they accounted for over 6% of total lending and had risen to over 17.5% in fiscal year 1986 (World Bank, 1986B). This has been accompanied by policy conditionality. Although privatisation has rarely been an explicit condition for multilateral lending - of ten country Structural Adjustment Loans given and evaluated by the World Bank, privatisation existed as a condition only in Jamaica, Pakistan and Senegal - the strong emphasis, particularly in IMF stabilisation programmes, on compression of domestic demand has been associated with reductions in government expenditure and public sector commitments. Moreover, with the argument being made that the strength of economic performance is influenced by the private/public mix, the obvious consequence has been that the pressure for raising the role of the private sector has been greatest in countries where, firstly, the public deficit has been large relative to GDP and where, secondly, access to other sources of finance has diminished.

The active advocacy of the United States Government has reinforced the tendency just described and its influence has not only percolated through to USAID lending policies but also to those of other multilateral and bilateral agencies. At the same time, there has been a growing trend towards co-ordination of lending by bilateral agencies with the programmes and priorities established under agreements with the multilateral bodies.

The change of attitude from the positions of the 1960s and 1970s is spelled out most frankly in a telegram issued in 1985 by US Secretary of State George Schultz.[5] It identifies major policy issues which USAID officials should raise with host governments "in connection with aid projects"; ie. it is a statement of US attitudes towards policy conditionality. Take first its general statements about the desirable policy orientation of aid recipients:

> "Policy dialogue should be used to encourage ldcs to follow free market principles and to move away from government intervention in the economy. This allows the market to determine how economic resources are most productively allocated and how benefits should be distributed.

"To the maximum extent practical governments should rely on the market mechanism - on private enterprise and market forces - as the principal determinants of economic decisions".

Now take what it has to say on parastatals:

"Parastatals are generally an inefficient way of doing business. They usually require subsidies and/or preferential treatment. Government should scrutinise the need for and activities of such entities. In most cases, public sector firms should be privatised. Where this is not practical, such firms should in so far as possible be subject to market forces and the discipline of the marketplace". (Emphasis added.)

USAID subsequently handed down a directive requiring most of its African field missions to be involved in "an average of at least two privatisation activities" by the end of fiscal year 1987.[6]

While the language of the above quotation is couched in terms of efficiency, the confidence with which privatisation is favoured as a means of achieving superior results betrays the ideological content of the message. It is in this context useful to follow Helm (1986, p.iii) in distinguishing two aspects of the intellectual debate of which the privatisation issue is part:

"The central question to which economists have given different answers since Adam Smith is whether or not the competitive market system, left to its own devices, free of government interference, will produce superior results in terms of efficiency and social justice, than alternative systems of economic organisation. It is this claim which again dominates the political and economic policy agenda in the UK and many other countries.

"It is a claim about both means and ends. The market system is argued to be the best instrumental method for attaining certain predetermined fundamental goals. Thus the argument for laissez faire rests upon two necessary conditions - the merits of the ultimate goals and the instrumental efficiency of the market in attaining them".

The following section thus focusses on that part of the privatisation

debate relating to goals while the third section is concerned more with questions of instrumental efficiency.

2. QUESTIONS RELATING TO GOALS AND OBJECTIVES

Ownership and ideology

The privatisation movement reflects a value shift as well as a change in perception about the best means of achieving stated goals. Given the intricate connections between ownership modes and the two major competing world ideologies, it could hardly be otherwise. Thus, just as many socialists still see the 'common ownership of the means of production, exchange and distribution' as an essential requisite of a socialist system, so Conservative leaders in Britain have been explicit in favouring privatisation as a way of spreading share ownership among the general public and thus its attachment to capitalist modes.

On the other hand, it would be a serious over-simplification to suggest that disillusionment with the state and its instrumentalities is a prerogative of those in the conservative segment of the spectrum of opinion, for recent years have seen an increasing readiness among Marxist thinkers and their sympathisers to adopt a more critical view of the efficacy of state interventions and of the relationships between state actions and class interests.[7] The sheer weight of evidence has also forced a re-evaluation of the performance of many public enterprises.

An example of this type of re-evaluation of particular interest is given in an article by Sandbrook (1986) writing about the role and functioning of the state in African countries. Although he acknowledges large differences within Africa, in the general case he postulates the existence of a 'legitimacy crisis' in post-colonial Africa. This he sees as resulting in the emergence of a predominantly "neopatrimonial" politics in which "the political requirements of regime and personal survival take precedence over and can contradict the economic policies and practices needed to promote sustained economic expansion" (p.321). Poor public enterprise performance is related to "the mismanagement that is so intimately connected to the dynamics of neopatrimonial politics ..." which "... can erode bureaucratic norms and practices and introduce massive waste and indiscipline into

the public sector" (p.327). Although Sandbrook goes on to hint that privatisation may not bring much improvement because the political imperative is likely to subvert "capitalist economic rationality" as well, the general thrust of his argument is certainly sceptical of the state as an instrument of modernisation and development.

It is tempting also to draw some connection between the privatisation movement and moves towards greater decentralisation and use of price incentives within some of the socialist countries. While it has not gone very far in any of them, in countries like China and Hungary some privatisation has occurred in agricultural production and marketing, as well as in other aspects of retailing, services and petty manufacturing as part of a drive for greater economic efficiency and greater responsiveness to consumer preferences. There is now a beginning of moves in this direction in the Soviet Union.

Another reason for not exaggerating the strength of the ideological clash involved in privatisation is to recognise the limited extent to which it is likely to affect the nature of the economic system and of society. Even in Britain, where privatisation has probably gone further than in most countries, it has been estimated that even if the present government sells all that it intends to do during the Parliament elected in 1983 this will still amount to less than 10% of all the assets in nationalised industries (Shackleton, 1984), an even smaller proportion of all state-owned assets and an almost insignificant proportion of the country's total productive assets. On the other hand, the proportion of households owning shares has reportedly risen from under 10% in 1979 to about 40% in 1987 and the privatisation movement has undoubtedly done much to popularise share ownership.

Thus, despite all the qualifications, the connections between political philosophy and attitudes towards ownership or the merits of the market mechanism remain intensely close. It is far more than a coincidence that privatisation has been associated with a clear rightward shift in political opinion in Europe and North America.

Distributional aspects

Among the most important ways in which the privatisation debate is symptomatic of a value shift concerns the apparently reduced weight that its advocates place upon distributional questions. Indeed, this distributional aspect has rightly been described as the suppressed question of the entire debate. It arises in connection with the distribution of both income and wealth.

Taking first the income dimension, we can ask who is likely to gain and who to lose from an act of privatisation? It is convenient for present purposes to assume that this is achieved by means of transfer of ownership. Of course, the outcome will vary from case to case but some general considerations do apply. First, the efficiency argument for divestiture - or, more strictly, for increased competition - emphasises the potential benefit to the consumer from lower-cost production. If this is indeed achieved the consumers in question will have higher real incomes and the distributional effects will then hinge on the income classes from which these consumers are drawn. However, it is not uncommon for public enterprises to be used by governments as a means of subsidising consumers, for example for wage goods or the delivery of economic services. The substitution of market-determined prices for the previously subsidised prices will create a group of unambiguous losers. These may or may not be made up of poverty groups, for state subsidies are a notoriously inefficient way of trying to alleviate poverty. They tend to have a strong urban bias and even in the rural economies a disproportionate share of the benefits is liable to be captured by local elites. Where public enterprises are indeed used as a means of subsidisation of consumers a further consideration in assessing the distributional consequences of divestiture relates to the progressivity of the increases in other government expenditures or reductions in taxation made possible by the budgetary resources thus released. It is thus impossible to generalise about the expected net effect of the factors just considered on the overall degree of income inequality. Stren's paper in this volume on the delivery of urban services well illustrates the complexities and the impossibility of any blanket identification of public provision with distributional progressivity.

We can perhaps go a little further when considering the functional distribution of income. We suspect that public enterprises usually

have larger work forces than could be justified in efficiency terms. There may also be a tendency for public enterprises to pay higher wages than would obtain under market conditions. The influence of trade unions tends to be stronger in public enterprises and they are usually opposed to divestiture. There is thus a rather strong presumption that the short-run effect of divestiture will be to reduce employment (although if the efficiency gains are large enough the longer-term outcome could actually be for more employment as the enterprise expands). There may also be a tendency towards lower real wages, perhaps achieved through the erosion of a frozen level of nominal wages by inflation.

Whether the benefits of lower labour costs are passed on to consumers or retained by the new private owners of the capital is, along the lines of standard microeconomy theory, likely to be highly sensitive to the degree of competition to which the enterprise in question is subject. If, as we suggest below, the privatised concern will often retain considerable monopoly power (and there are no effective regulatory restraints on the exercise of this power) then the benefits will be retained, in whole or part, by the owners and there will then be an at least short-term shift in the functional distribution of income in favour of capital, tending also to increase inequalities in the size distribution.

This brings us to the ownership of wealth. Of course, if divestiture results in a sustained shift in the functional distribution of income in favour of owners of capital this itself will tend to aggravate wealth inequalities, as streams of income from profits are converted into assets. But there is also the question, who will buy the enterprises to be privatised? Even though the buyers have undoubtedly been drawn from the more well-to-do segments of society, it may be that the widespread and highly fragmented sale of shares in privatised concerns has actually reduced the skewness of wealth ownership in Britain. It is difficult to be in any way confident that a similar result could be achieved in most developing countries, however. On the contrary, the general expectation must be that, if ownership remains in national hands, it will pass to an already wealthy elite, thus tending to perpetuate inequalities in the size distribution of income as well.[8] Indeed, there have been complaints in a number of developing countries that one of the motives behind the privatisation

movement has been a desire to promote a 'crony capitalism', from which the relatives, friends and supporters of members of the government are the chief beneficiaries.

However, in some of the poorer developing countries there may be no potential buyers of public enterprises in the private sector other than multinational investors. If indeed ownership passes into foreign hands the effect will tend to be to widen international inequalities in the distribution of wealth, with the associated income streams increasing the gap between domestic and national income. However, in this context the main point will tend to be that a sale of national assets to foreign owners will often be unacceptable to publics and governments alike. An absence of national purchasers is thus more likely to be a constraint on divestiture than a source of widening international disparities.

3. QUESTIONS RELATING TO INSTRUMENTAL EFFICIENCY

Microeconomic efficiency

The privatisation movement, as we have seen, is part of a more comprehensive reassertion of the merits of market solutions. Private ownership, it is claimed, will lead to a more efficient, higher productivity use of resources. In addition, some would also claim that efficiency considerations cannot be divorced from the system of rules and rights - the constitutional contract - on top of which exchange takes place. When voluntary exchange between individuals is valued positively, market-like solutions, they would argue, will always be preferable (Buchanan, 1986).

The standard neo-classical position, derived from the theory of perfect competition, argues that the market mechanism tends in the direction of producing a Pareto-optimal result, where resources are so distributed between alternative uses that no changes could be made that would not make someone worse off. It is, of course, generally recognised that economic conditions in developing countries are far removed from the demanding assumptions upon which the perfect competition model is built but it is nonetheless asserted that market-determined resource allocations will result in higher-productivity uses than non-market forms. A particularly troublesome deviation from

the perfectly competitive model is the widespread existence of increasing returns to scale, giving rise to the emergence of natural monopolies. Indeed, the existence of such natural monopolies is one of the standard economic arguments used in favour of public enterprise, to capture the benefits of scale economies for the public at large rather than for the owners of monopoly capital.

Critics of mainstream microeconomics tend to emphasise the importance of increasing returns, especially in the small economies of most developing countries. Advocates of market solutions both give less prominence to this feature of production conditions and, in any case, dispute whether it constitutes a good case for public ownership. As an alternative they suggest the device of 'franchising', with a system of competitive bidding for the right to operate the monopoly, the franchise being awarded to the firm that agrees to serve the market with the lowest prices for the quantity and quality of output specified in a contract (eg. see Hanke, 1986). This is a solution analogous to the system in the UK for the award of regional commercial TV licences.[9]

The basic difficulty of arguments for divestiture on the grounds of an alleged superior allocative efficiency is that, while mainstream microeconomic theory does point in the direction of the allocative superiority of <u>competition</u>, it is actually silent on the <u>ownership</u> issue. Thus, advocates of privatisation have been accused of confusing private ownership with competition (Shackleton, 1985; Kay and Thompson, 1986). There is, of course, no necessary connection between the two. Public enterprises can be required to compete on equal terms with private concerns. Private enterprises often possess much monopoly and/or monopsony power, a condition particularly likely to be prevalent in developing countries with their small internal markets and generous protection from import competition. (Killick, 1981, chapt.10). One of the great difficulties for the privatisation movement is to avoid simply converting public monopolies into private monopolies.

This is not to say that such a conversion would be without significance. It is possible to argue, for example, that, in contrast to public monopolies, their private counterparts are subject to the discipline of financial markets, including the possibility of take-

over bids. This would give them a greater incentive to keep down production costs - but not necessarily to pass on the benefits to consumers (Tomlinson, 1986). Some studies of conditions in industrial countries suggest that private enterprise is associated with greater efficiency of resource use (eg. Pryke, 1982) but the overall evidence is ambiguous (see Millward, this volume). We have already suggested that transferring monopoly powers from a public to a private corporation will tend to result in a shift in value-added from owners of labour to owners of capital, but with the net effect on consumers and on total factor productivity indeterminate.

Mainstream neo-classical price theory thus fails to provide any conclusive reason for favouring private over public enterprise. Two caveats should be entered, however. First, it should be possible to design a privatisation programme in ways that do increase the probability or extent of competition. Many public enterprises in developing countries are either statutory monopolies or are given advantages over private competitors by means of open or indirect subsidies, or in other ways. It is still rather rare for a government to allow a state concern to go out of business because it cannot compete. In this sense, standard price theory is not quite as silent on the ownership issue as is sometimes suggested.

Secondly, however, there are certain extensions of the standard theory which take a more positive view of the connections between ownership and efficiency. We particularly have in mind here the so-called 'property rights' school which is principally concerned with the relationships between ownership rights, incentives and economic efficiency.[10] This deviates from mainstream theory by rejecting the firm as the unit of analysis and profit maximisation as the guiding behavioural postulate, focussing instead on the actions of managers within the firm who are assumed to pursue their own self-interests. In the classical firm operating in a highly competitive market the property rights of the owners are strong and direct. Managers will be severely constrained from diverting the firm's resources for their own ends, they will have little scope for discretionary behaviour, and the final outcome in this situation is likely to approximate that of standard competition theory.

In the modern, large, limited liability corporation, on the other hand, the property rights of the owners are more attenuated, leaving

them with less control over the managers and the managers with more discretionary power to further their own interests. The greater the attenuation of property rights, according to this school, the greater is the likely deviation of the allocation of resources from optimal efficiency. However, as Coase (1960) pointed out, any property rights system could be Pareto-optimal if it was a complete system in which all rights were actually tradeable. Such systems cannot, it is generally agreed, exist precisely because of the transaction costs involved in striking ex ante contracts and subsequently the costs of enforcing those contracts. When such costs are taken into account, the key issue relates to the means by which contracts at both stages can be struck to realise the maximum efficiency. Nevertheless, even when transaction costs are explicitly taken into consideration, ownership will still matter. This is because ownership generates the overall incentives structure. Thus, when pecuniary motives within firms are weaker than those in markets, non-economic preferences will have greater importance. Williamson (1985), for example, argues that the transfer of transactions out of the market into firms will generally impair incentives and, above all, have negative implications for innovation. Thus, from both a property rights and a transaction costs standpoint, there would be a preference for small firms over large firms on account of their superior capacity to present and retain high-powered incentives, rather than relying on weaker or administered means. Clearly, from this framework public enterprise will tend to emerge as the least efficient organisational form. Attenuation of property rights and the dilution of economic incentives is seen as at its greatest in state enterprise (Hanke, 1986, p.16):

> "What distinguishes public and private enterprises is the fact that public assets are not 'owned' since they cannot effectively be transferred. This lack of transferability means that decisions taken by public bureaucrats and employees do not readily translate into changes in the market price of the firm's assets, and the 'owners' have little incentive to monitor public managers' and employees' behavior ... Without changing the underlying property rights arrangements ... we cannot expect their behavior to conform to that needed to maximise the value of a public enterprise's assets".

While the language is unfamiliar, if not obscure, and property rights theory also rests on restrictive behavioural assumptions, the general thrust of the argument can easily be related to a number of complaints commonly made about public enterprises: that incentives to efficiency are inadequate; that it is difficult to exert meaningful control over managements and to make them effectively accountable to the representatives of the public. The paper by Jackson in this volume well illustrates the intrinsic difficulty of instituting satisfactory performance measurement in public enterprises. The distinction is sometimes made between allocative efficiency, discussed above, and managerial efficiency (or 'x-efficiency'), by which is meant least-cost production, with the assertion that pressures for managerial efficiency are lower in public enterprises. Thus, Kay and Thompson (1986, p.18): "the view that (privatisation) contributes to economic efficiency is derived from the belief that private sector managers are subject to incentives and disciplines different from, and more demanding than, those which apply to their public sector counterparts".

The insistence of the property rights theorists that the only way to achieve improved results is through a shift in such rights to private ownership is also paralleled by others who argue that inefficiency is <u>intrinsic</u> to the multiple goals and 'political interference' which characterise public enterprises. We should note, however, that the property rights school would predict that the degree of improved efficiency to be derived from privatisation would be strongly influenced by the manner in which it was done, ie. by the extent of attenuation of property rights in the newly-created private enterprise. Their position, in practice, is probably rather close to the mainstream neo-classical advocacy of using privatisation to create more competition, rather than private monopoly power.

The above has essentially been about the effects of ownership on <u>static</u> efficiency, on the productivity-in-use of given resources. That we have little to say about the dynamic efficiency of different ownership forms is unfortunate, given its great importance in economic development, but is an accurate reflection of the state of the literature. Neo-classical microeconomics has always been weak in its treatment of dynamics. There has been some discussion of the dynamic properties of (private) monopolies, with the Schumpeterian school

urging the advantages of monopoly as a source of accumulation and innovation but this is not a well-developed literature. The limited evidence that is available (mainly relating to industrial countries) provides little support for the Schumpeterian school (Kamien and Schwartz, 1975) but nevertheless the introduction of such dynamic considerations leaves a greater degree of normative ambiguity than does the static theory.

Detailed investigation of whether the actual developmental performance of public enterprises strengthens or weakens the case for divestiture is beyond the boundaries of this paper, despite its importance. The example of South Korea - and before it of Japan - is often cited as a favourable example of public enterprises playing a key role in the earlier phases of industrialisation, to be privatised later (Jones, 1975). On the other hand, a recent survey of public enterprise performance in sub-Saharan Africa came to a very unfavourable conclusion (Nellis, 1986):

> "PE earnings are generally low; many run losses; often these losses are of a large magnitude. Far from contributing to government revenues, African PEs have regularly become a heavy burden on already strained budgets. Few PEs generate revenue sufficient to cover operating costs, depreciation and financial charges; a good percentage do not cover operating costs alone. In many instances where PEs are classed as profitable, closer examination reveals distorted prices, direct subsidies, hidden transfers, preferential interest rates and a host of other elements which - if properly accounted for - would reduce the paper profits of the PE in question. The conclusion is that African PEs present a depressing picture of inefficiency, losses, budgetary burdens, poor products and services, and minimal accomplishment of the non commercial objectives so frequently used to excuse their poor performance. Though every African country has one or more PEs which perform well by the most stringent of standards, on the whole PE sectors are not fulfilling the goals set for them by African planners and leaders".

In a review of the performance of industrial public enterprises in Africa, one of the present writers similarly came to strongly negative

overall conclusions about their performance and cautioned against the creation of such enterprises as a means of stimulating industrialisation (Killick, 1983). Overall, if the developmental dimension is viewed largely in terms of the respective investment levels and innovatory dynamism of the two, we suspect the evidence would be in favour of private ownership, on the grounds that returns to capital (and hence the size of the reinvestible surplus) are generally lower among public enterprises, and that they have a generally poor reputation for product innovation and diversification.

There is a final matter to clear up in this discussion of privatisation and microeconomic efficiency, namely the prices in which efficiency is measured. We are referring here, of course, to the familiar distinction between market prices and social (or economic, or shadow) prices. The discussion is almost invariably conducted in terms of market valuations but this seriously biases the debate against public enterprises, whose pricing and production policies may be based, by government decision, upon social valuations. This question is begged, for example, by Peacock (1984, p.6) when he asserts that economists are agreed that the desirability of privatisation is to be judged by the effect it has on the present value of the excess of consumers' and producers' surplus over cost. Given the various influences in developing economies that can drive wedges between market and social valuations, to concede that efficiency should be judged in market terms is to concede too much. On the other hand, to go the route of shadow pricing introduces all the additional difficulties of arriving at a satisfactory set of social valuations - and further reduces the possibility that economics will be able to offer any clear pointers in the privatisation debate.

Macroeconomic efficiency

Opinion on the contribution of public enterprises to macroeconomic efficiency has gone full circle over the last two or three decades. One of the arguments for public enterprise was that it would facilitate the process of national planning, giving control over the commanding heights of the economy and providing the state with an additional set of instruments through which to achieve its objectives.

That is not an argument which nowadays has a very persuasive ring. The experience has not in many cases suggested that a large public

enterprise sector has facilitated development planning, partly because of the absence of effective public accountability already mentioned. There have been problems of synchronising the planning periods of private enterprises and national governments. And there have not infrequently been large discrepancies between public enterprise plans and achievements. In some cases - commercial banks provide an example - it has seemed difficult to bring public enterprises within national planning precisely because they were in the public sector and politically powerful.

Another argument, derived from earlier investment-led models of growth, was that public enterprises were a means of generating additional savings and investment, thereby helping to raise the investment ratio to the level thought necessary to achieve progress towards self-sustaining growth. The difficulty with this approach is not merely that, in the general case, public enterprises have not been very successful in generating reinvestible surpluses (see above) but also that little is nowadays left of the Harrod-Domar and Rostowian models of economic growth and development.

The more common tendency now, particularly in the IMF and World Bank, is to regard privatisation as a necessary part of the balance of payments adjustment process. Generally, the connection is through the budget. With public enterprises large-scale claimants of budgetary subsidies of various kinds (and also representing an unutilised part of the tax base), divestiture is often seen as an important way of reducing the government's budget deficit, with all its implications for inflation and the balance of payments, although the paper by Hemming and Mansoor in this volume suggests that the budgetary effects will be keenly affected by the extent to which divestiture results in increased competition.[11] The connection between privatisation and adjustment may also be directly through the export sector, for example when inefficient marketing boards discourage cash crop production or nationalised mines produce poor results.

Instrumental efficiency and multiple goals

Finally under the heading of efficiency we should revert to the multiplicity of policy objectives which public enterprises are commonly asked by governments to promote: profits for the government's revenues and for reinvestment; increased and low-cost output; assistance to underprivileged groups or regions; increased employment; price stability; a source of party or personal patronage; and so on. The point here is that efficiency can only be assessed relative to the goals being pursued, and much of the perceived 'inefficiency' of public enterprises results from judging them by criteria which only partially correspond to their policy objectives.

This is a highly ambiguous defence of public enterprises, however. If there are too many goals and these contradict one another (as is commonly the case) then 'efficiency' loses meaning and there is no satisfactory way of monitoring the performance of a public enterprise, nor of safeguarding against 'inefficiency'. The movement for divestiture is symptomatic not merely of a change in values but also of what might be termed a simplification of the goals that previously public enterprises are expected to pursue. The single and simple goal of profit maximisation is being substituted for the multiple objectives of the state. In principle, such a simplification could be achieved without privatisation, by governments telling the managers of their state concerns to pursue profit maximisation or some other single objective. But for many observers multiple objectives (or perhaps multiple principals[12]) are among the defining characteristics of public enterprises and the likelihood that governments would stick to any one objective are slim.

Divestiture thus attempts to substitute the relatively straightforward criterion of the marketplace for the multiple objectives of the public enterprise, and to promote greater efficiency by clarifying its meaning and reducing its ambiguities. We think this simplification of objectives is a rather important aspect of the privatisation movement. But privatisation itself is by no means free of contradictions. In the UK, for example, the desire to use privatisation as a way of reducing the public sector borrowing requirement provides the government with a motive for maximising the value of the assets it is selling. This can be done by offering the private buyer monopoly pri-

vileges, thus undermining the potential microeconomic efficiency gains.

4. CONSTRAINTS ON DISINVESTITURE

It is now generally recognised in the literature that privatisation embraces a range of possible actions. The common theme remains the reduction or elimination of the public sector's role in an enterprise or market. These actions range from outright divestiture or denationalisation to franchising (contracting-out), self-management and market liberalisation or deregulation.

Although most attention has been drawn to ownership transfers, a recent survey of the privatisation process in developing countries argues that the most common form of divestiture has been informal closure. The survey concludes that 'the number and scale of actual divestitures in developing countries seems extraordinarily small in the light of the considerable rhetoric that the idea has generated' (Berg, 1985, p.19). Leasing of state owned enterprises through private management contracts - a less abrupt and perhaps politically easier mode of privatisation - appears, however, to have as yet been little adopted. In a number of countries a modified system has been adopted which, while retaining public ownership and management, has instituted tighter financial controls on state enterprises; the 'contrat-plan' system in Senegal is a case in point.

A further mode of privatisation has been contracting out services to private agents, for example in Ivory Coast. This is relatively common in relation to activities such as road maintenance and construction. But it is also not a new phenomenon. Direct hire by the state has generally been a minority practice for functions of this nature, or else has been a minor component of the total supply of such services.

Withdrawal from state provision of goods and services remains another associated aspect of the privatisation issue. With severe budgetary constraints this has already occurred in many developing countries on a de facto basis. Inadequate recurrent resources have led in a large number of African economies to an almost total collapse in the provision of extension and research services to farmers. In this context, the privatisation issue turns on the degree to which such functions

will and can be picked up by the private sector. To the extent that they cannot, a subsidiary question concerns the introduction of user charges to pay in part for such services while also reducing the burden on the budget.

Three broad themes can thus be outlined as characteristic of the privatisation process. The first relates to changes in ownership, the second to changes in management and the third to shifts in the method of financing. By and large, the moves that have been made with regard to privatisation in most developing countries have largely fallen under the first category. However, financing arrangements are increasingly a central issue and user charges for basic services - such as health care, veterinary services, irrigation and so on - have come to be a growing feature of project design. In the latter case, the justification for the imposition of user charges relates less to the ownership of such rights to charge than to the supposed efficiency consequences of the imposition of these rights (Paul, 1985). In this context, the emphasis is on reducing waste in the use of the resource while, at the same time, minimising the costs to the public budget.

However, while much of the literature on privatisation, extrapolating from developed country conditions, sharply demarcates the private from the public sector, in many developing countries this distinction is blurred (Berg, 1982). Apart from contractual ties - themselves commonly alleged to be a fertile source of corrupt transfers - tax supports, regional subsidies and other hidden transfers link up the two sectors. This is perhaps most clear with regard to financing. Private financing, particularly for more risky or sub-contracted operations, tends typically to be guaranteed by the state and hence the public/private distinction can be a somewhat artificial one. Ironically in Chile, as in a number of other heavily indebted Latin American economies, where financial liberalisation advanced rapidly post-1973, Diaz-Alejandro (1985) has shown that, despite statements to the contrary, the government had to take over the external debts of the banking sector, thereby establishing "another road to a de facto socialized banking system".

While the transfer of ownership has been the principal mode of privatisation, this mechanism poses some major problems.[13] The first and principal constraint relates to the size of the capital market

available to a divesting authority. In the advanced economies, ownership transfer has largely been through the sale of equity. While this has posed problems in valuation and in terms of the relation between the realised proceeds from equity sales and the net present value of future earnings, the instrument for transfer does not pose a problem, so long as the enterprise is regarded as being commercially viable. But the limited capitalisation and number of traded issues of developing country stock remains a major barrier to such methods of transfer. In most developing countries there has been a very limited level of equity financing while local markets have rarely been able to provide satisfactorily long-run investment resources. Consequently, debt financing has emerged as a more common method of raising capital. The absence of organised capital markets is particularly pronounced in economies where the pressure from donors for ownership transfer is most acute. In sub-Saharan Africa, for example, formal stock markets exist in Lagos, Harare, Nairobi and Abidjan but have all declined since 1980 when measured in terms of capitalization and issues (Moose, 1986).

Tables 1 and 2 provide information regarding capitalisation and listings in a spread of developing economies. It is instructive to note that in terms of capitalisation, the total listed capitalisation barely comprises 10% of that of the London Stock Exchange and only 3% of the London and American exchanges combined.

Where equity sales are actually a feasible mode of ownership transfer, the limited size of most developing country stock exchanges has implications for the consequences of this approach. What is likely to be engendered is a reverse crowding-out effect, with sales of equity mopping up available capital at the expense of other private sector companies. There is some evidence that this has been the case with major flotations in the UK, but clearly any such effect would tend to be magnified in the presence of a greatly restricted market.

The factors inhibiting the development of capital markets and investment in developing countries are various, with some more susceptible to remedy than others. In the former category, one could include entry barriers, such as restrictions on the nationality of investors, but a more problematic issue relates to the general structure of expectations and its impact not only on the level of foreign invest-

Table 1

Emerging Stock Exchanges, Market Capitalisation

(billion dollar equivalent at year end)

	1980	1981	1982	1983	1984
Malaysia	12.4	15.3	13.9	22.7	29.2
Brazil	13.0	12.6	10.3	15.1	28.9
Mexico	13.0	10.1	9.0	3.0	2.8
India	6.0	8.4	8.0	8.5	7.9
South Korea	3.8	4.2	4.4	4.4	6.1
Chile	10.3	7.1	4.4	3.0	2.1
Jordan	1.6	2.5	3.0	2.9	2.2
Venezuela	2.7	2.6	2.7	2.7	1.8
Nigeria	2.9	2.7	2.5	2.7	2.7
Thailand	1.2	1.0	1.3	1.5	1.7
Pakistan	0.7	0.9	1.1	1.2	1.2
Colombia	1.6	1.4	1.3	1.0	0.8
Philippines	1.9	1.7	1.8	1.3	0.6
Argentina	4.0	1.4	0.9	1.4	1.2
Zimbabwe	1.8	0.6	0.4	0.3	0.2
Kenya	0.5	0.4	0.3	0.2	0.2
Indonesia	0.1	0.1	0.4	0.3	0.1
Total	77.5	73.0	65.8	71.4	89.7

Source: Moose, 1986, p.154.

Table 2

Emerging Stock Exchanges, Number of Listings

	1980	1981	1982	1983	1984
India	2,265	2,114	3,358	3,118	3,882
Brazil	614	614	607	593	608
Korea	352	343	334	328	336
Pakistan	na	311	326	328	347
Malaysia	249	252	261	271	278
Argentina	277	262	247	238	236
Chile	265	242	212	212	220
Mexico	271	240	215	174	178
Colombia	202	201	191	222	239
Philippines	193	192	200	184	149
Nigeria	na	92	na	92	93
Thailand	80	93	84	85	89
Jordan	65	74	99	109	131
Venezuela	73	73	73	73	91
Zimbabwe	62	62	62	62	56
Kenya	55	55	55	55	55
Indonesia	6	9	14	18	24

na: not available

Source: Moose, 1986, p.155.

ment but also on domestic mobilization of savings. Investment will clearly be structured in part in relation to the perception regarding likely future actions by the state with respect to ownership and tax policy, as also by the general economic environment. Where such perceptions are bleak, the access that financial institutions have to savings will be stunted while capital flight will commonly be a major feature of the economy. This will have direct implications for the fiscal profile. In Mexico and Argentina, for instance, capital flight in 1983 may have amounted to around 10% of the fiscal deficit and for Venezuela this share may have exceeded 75%.[14] Lack of economic confidence remains a critical factor ensuring the continuation of massively sub-optimal levels of investment.

The barriers to a more accelerated withdrawal of the public sector from the provision of goods and services are, however, not merely those associated with the instruments of transfer. Absence or constriction of capital markets can be surmounted by recourse to direct cash sales or outright transfers by the state to private agents. In the great majority of instances this has been to the previous owners from whom the enterprises had been confiscated or transferred. This has been the case in Bangladesh, for example, where extensive denationalisation in the manufacturing - particularly textile - sector has recently occurred. But in many countries such sales or transfers are likely to attract considerable domestic political opposition. This opposition would tend to come not only from the existing work-force, but also from political lobbies. We have referred already to the special sensitivity aroused by any suggestions that ownership could pass to foreigners or to particular racial minorities. Even if the basis of this opposition may be related to particularistic interests, and hence be irrelevant to an economic calculation of the likely benefits or costs of ownership transfer, the fact remains that in the absence of sufficient support for such a policy the political costs will remain high. If this is the case then the expected pace of implementation will remain sluggish.

As fundamental in determining the nature and pace of divestiture is the question of potential profitability, itself in part a function of the level of the debt obligations of any enterprise that is proposed for ownership transfer. Although it can be argued that some public enterprises have been inefficient users of resources, much public sec-

the activity is concentrated in areas of low profitability. Where this is not the case - as with national energy companies or toll authorities - these tend to be the least likely candidates for divestiture on the grounds that they are natural monopolies or providers of public goods. Provision of 'merit' goods has rarely been a profitable area, especially when generalised.

A high proportion of public enterprises in developing countries are in fact loss-makers. Divestiture in such circumstances is only likely to be feasible when significantly sweetened by market and tax concessions. This will further militate against increasing the level of competition. Foreign exchange shortages and weak or volatile demand for output - a common feature where absorption-reducing policies are combined with falling terms of trade - would be other contributory factors. Thus, the restoration of reasonable prospects of profitability are liable to depend on the implementation of a whole package of 'adjustment' measures, and on the scale of external support which this attracts. In addition, where public enterprises are profitable the rationale for divestiture becomes less obvious if the reduction of public deficits is the end in view, as against a more general allegiance to the virtues of private ownership. Where the sale of profitable enterprises is entertained, familiar problems from the advanced economy experience concerning valuation will surface. In addition, where very high rates of inflation have been sustained - as in many Latin American economies - this raises difficult issues when calculating the real worth of an enterprise.

These constraints on divestiture can, perhaps, be most clearly seen with regard to the agricultural sector in developing countries. By and large, there is agreement that areas such as extension and agricultural research are unlikely direct candidates for the private sector. What is more feasible is the introduction of charges for the services provided, although with the state remaining the executing agency. In contrast, it is increasingly held that areas such as the supply of inputs and credit are more suitable fields for the private sector to assume the role played in the recent past by state institutions or parastatals.

The experience to date with regard to the transfer of such functions has been very limited. In a small number of cases - such as Senegal -

... state has largely withdrawn from the direct provision of some basic agricultural services, such as credit and seed supply (Abt Associates, 1985). But even where the will exists among governments to raise the share of the private sector, the obstacles remain significant.

Firstly, there is the problem of a relative lack of profitability in such activities when compared with the trading, urban sector activity and rent-seeking that commonly constitute alternative avenues for organised capital. Where agriculture is subject to high levels of risk and relatively meagre levels of capitalisation - hence collateral constraints - the variability in the demand for inputs will tend to depress profitability. In such circumstances, the paradoxical consequence may be that in order to sustain current - almost always sub-optimal - levels of consumption of say, inputs, the state will have to offer a combination of subsidies and preferential market conditions to potential private suppliers. This may be particularly necessary where an allied feature of adjustment is the elimination of subsidies on agricultural inputs, a further demand constraining factor.

Secondly, with regard to credit, in particular, the enforcement costs of lending to agriculturists are commonly high and private financial institutions tend consequently to be reluctant to enter this area. In consequence, in almost all developing countries, informal capital markets predominate. But the reasons for establishing public sector financial institutions in the first place - other than for facilitating the transfer and utilisation of agricultural sector savings - still hold. Informal sector creditors tend to charge a high risk premium, that sometimes extends to controls over marketed output. While there is no inherent reason why high interest rates should necessarily deter agricultural innovation, in the context of many low-income countries the absence of an organised banking and credit system would tend to depress the consumption of productivity-raising inputs and aggregate capital formation in production.

A third issue relating to the delivery of services to the agricultural sector concerns their coverage. While public interventions in the delivery of extension and other services may be highly imperfect, given de facto rationing, retreats from systems of generalised coverage to levels that may be financially viable will have both

...tutional and political implications. Scaled-down private sector interventions would inevitably imply a trade-off between coverage and possible efficiency gains.

5. CONCLUSIONS

Rather than attempt a systematic summary we shall try finally to pull some loose ends together and to suggest some general conclusions.

The distinction between the objectives to be promoted and the instrumental efficiency of alternative means of achieving them is an organising principle that underlies much of the foregoing discussion. We have suggested that the privatisation movement is symptomatic of a value shift among the electorates and governments of many of the major Western countries which has been exported to developing countries both as part of the general spread ~~of ideas and~~ specifically through the policy conditions attached to multilateral and bilateral assistance. It is a value shift which places less weight on distributional concerns, although we have also drawn attention to the difficulties of arriving at firm conclusions about the distributional consequences of public enterprise.

Nevertheless, even if for the moment we assume that privatisation would result in improved efficiency of resource use, no conclusion can be drawn from this improvement about the desirability of privatisation unless it is further assumed that the improvement in efficiency results in increased utility or welfare distributed in a manner regarded as satisfactory (by whom we leave aside). The desirability or not of some particular act of privatisation cannot be settled in abstraction from the values of society, or of its representatives, and from the relative importance attached to the various goals.

This consideration also relates directly to the simplification of enterprise objectives which is an important aspect of the privatisation movement. The gain is clear: it clarifies the meaning of efficiency, gives management a clearly-defined goal and thus makes the monitoring of performance far easier. The loss is that it will often be inappropriate to assess enterprise performance by the simple test of the market because society's needs are too complex to be reduced to that criterion. Almost the same point is made by questioning the

appropriateness of replacing evaluation at shadow prices by market prices, given the many conditions in developing countries that prevent market prices from accurately reflecting social values. We hasten to add, however, that probably only a modest part of observed public enterprise 'inefficiency' could be justified along such lines.

One of the more down-to-earth conclusions to be drawn from this set of considerations is that when divestiture occurs there is likely to be a need to establish regulatory mechanisms for protecting the public interest: safeguarding against the abuse of monopoly power, ensuring some minimum coverage of the services provided and so on. At the same time, we hesitate to place much faith in such devices, for regulatory authorities are notoriously prone to be captured by the special interests they are intended to oversee, or to be ineffective in the face of such interests.

On the question of instrumental efficiency, we have shown that the claims of divestiture should by no means be taken for granted, notwithstanding the admittedly poor record of many public enterprises in developing countries. One of the problems here is that devotees of privatisation have a tendency to compare an unattractive, warts-and-all face of public enterprise with an idealised view of the private sector. This overlooks some important economic realities: that public corporations were often created to fill vacuums left by private enterprise, with little assurance that entrepreneurs would now be ready to move in; that there are manifold factors preventing economic conditions even remotely satisfying the conditions of standard neo-classical price theory; and that private enterprises are also subject to political control and influence, albeit less directly than public enterprises, especially in the type of political situation described by Sandbrook.

It is commonly claimed that its advocates fall into the error of confusing divestiture with competition. We have not entirely agreed with that view, pointing particularly to the somewhat more robust arguments that can be derived from the property-rights literature. Nevertheless, it is a difficulty for its advocates that the main normative thrust of microeconomic theory is in favour of more competition and that divestiture is neither a necessary nor a sufficient condition for the enhancement of competition. We might add here the particular dif-

ibilities associated with the theory of the second best: that there can be no assurance of improved allocative efficiency when privatisation occurs (as it always must) in the presence of a large number of factors preventing a Pareto-optimal allocation of resources. These considerations leave the claim that divestiture will lead to a more efficient use of resources in ambiguity.

A practical lesson to draw from the above is that the way in which divestiture is designed is likely to be of much importance, placing a large premium on doing it in ways which enhance the intensity of competition in the markets in question. However, we have also pointed to a dilemma here. To make a public enterprise attractive to potential purchasers, and to maximise the short-term receipts by the fisc resulting from the sale, the government will be under pressure to grant the enterprise precisely the monopoly powers which reduce the efficiency gains that it is intended to derive from the transfer of ownership. This dilemma has not yet been satisfactorily resolved by advocates of privatisation and is likely to be particularly acute in developing country circumstances.

This then brings us to the question, what is the practical potential of divestiture for changing the structure of ownership and markets? In addition to the dilemma just mentioned, we have drawn attention to various rather severe constraints on the extent and pace of divestiture. These include the weakness or non-existence of capital markets through which it could be mediated, the great political sensitivity of selling to non-nationals, and the often unattractive financial record of the candidates for privatisation. Here is another dilemma: the desirability to the government of getting rid of a particular enterprise will be inversely correlated with its saleability.

There is a related question about the timing of privatisation. Engineering the transfer of an enterprise to private ownership during a period of recession, with its depressing effects on profitability and confidence, is likely to be particularly difficult. Thus, while privatisation is often regarded in the World Bank and elsewhere as an integral part of a programme of 'structural adjustment' it may, in practice, become more feasible after extensive restructuring has been undertaken and the economy has responded.

[illegible] these difficulties, we doubt whether divestiture will be widely employed and have noted that movement in this direction has so far been quite limited. The main point is that the conditions necessary for divestiture to be both appropriate and successful are actually rather restrictive. Even its supporters now acknowledge that divestiture is not "the most promising instrument and is, in any case, not a process amenable to outside pressure" (Berg, 1985, p.63). We therefore see it as a specialised instrument for adoption in a rather narrow range of circumstances, not as a general solution to the problem of sub-standard public enterprise performance.

This is not to suggest that the privatisation movement is unimportant, however. One of its main effects has been to draw attention to the often grave economic deficiencies of many public enterprises and the importance of correcting these, whether or not privatisation is the best way of doing so.[15] It has also nearly stopped the creation of new public enterprises dead in its tracks. That may, in the end, be its chief contribution to economic policy in developing countries.

Footnotes

1. See Nellis, 1986.

2. See Bardhan, 1984; and Commander, 1987.

3. For a highly critical assessment of their role see Bauer, 1954. Also Hart, 1982.

4. For example, following the liquidation in 1980 of the massive Senegalese Groundnut Marketing Board (ONCAD) its debts exceeded $295 million, while in Ghana the Cocoa Marketing Board at its peak accounted for nearly 20% of total modern sector employment. See Shafik, 1986; and World Bank, 1985.

5. Cited in Killick, 1986, on which these paragraphs are based.

6. Reported in West Africa, 10 November 1986, p.2369.

7. Some of this shift in approach is surveyed in Riddell, 1987, chapter 11.

8. An interesting twist to this discussion is given by the case of Malaysia, where public enterprises have been used as a means of redressing the concentration of wealth in the Chinese population through a policy of divestiture to Malay entrepreneurs (Mallon, 1982)

9. However, it is clear that in discussing the best means for awarding franchises in conditions of natural monopoly, the various bidding systems that have been devised will not invariably yield a more efficient outcome. Where investment in durable assets is significant and where technological and market uncertainties prevail, franchise bidding will tend to require an administrative apparatus little different from the prior, regulated system. In other words, market solutions will tend to require administrative support (Williamson, 1985).

10. See Furubotn and Pejovich, 1972, for a survey of this literature, and Hanke, 1986, for an application to the privatisation issue.

11. A desire to reduce the public sector borrowing requirement has similarly been a feature of the privatisation movement in the UK, although only achieved by the dubious expedient of treating the proceeds of asset sales as current revenue receipts.

12. See Jones, 1982, p.5 for a discussion of this point.

13. For an extended discussion of the transfer process see Heald, 1985.

14. See ODC, 1986; and Conesa, 1986. A recent - and undoubtedly under-enumerated - estimate of bank and fiduciary deposits with Swiss banks suggests that around 25% of such total deposits originated from developing countries At its most extreme, capital flight has in recent years assumed drastic proportions. In the

case of Liberia, for example, bank and fiduciary deposits in Switzerland in 1984 amounted to $1,675 million when GDP appears not to have reached $1,000 million in that year (Christensen, 1986).

15. See Nellis, 1986, for a discussion of alternative techniques for the improvement of public enterprise performance.

References

Abt Associates (1985), Senegal: Agricultural Policy Analysis, Cambridge, Mass., mimeo.

Bardhan, Pranab (1984), The Political Economy of Development in India, Oxford.

Bates, Robert H (1981), Markets and States in Tropical Africa: the Political Basis of Agricultural Policies, Berkeley, 1981.

Bauer, P (1954), West African Trade, Cambridge.

Berg, Elliot (1982), 'Changing the public-private mix: a survey of some recent experiences in ldcs', IMF Fiscal Affairs Department, Washington.

Berg, Elliot (1985), Divestiture of State-owned Enterprises in ldcs, report prepared for the World Bank, November (mimeo).

Brittan, Samuel (1986), 'Privatisation: a comment on Kay and Thompson', Economic Journal 96(381), March.

Buchanan, James M (1986), 'Rights, efficiency and exchange: the irrelevance of transaction costs', in Liberty, Market and State, Brighton, pp.92-107.

Christensen, B U (1986), 'Switzerland's role as an international financial center', Washington, IMF Occasional Paper 45.

Coase, R H (1964), 'The problem of social cost', Journal of Law and Economics, 3.

Commander, Simon (1987), The State and Agricultural Development in Egypt Since 1973, London.

Conesa, E R (1986), Fuga de Capitales en America Latina, 1970-1985, Inter American Development Bank, Washington.

Diaz-Alejandro, Carlos (1985), 'Good-bye financial repression, hello financial crash', Journal of Development Economics, 19.

Furubotn, Eirik G and Pejovich, Svetozar (1972), 'Property rights and economic theory: a survey of recent literature', Journal of Economic Literature, X(4), December.

Hanke, Steve H (1986), 'The privatisation option: an analysis', Economic Impact, 3.

Hart, Keith (1982), The Political Economy of West African Agriculture, Cambridge.

Heald, David (1985), 'Privatisation: policies, methods and procedures', Asian Development Review.

Helm, Dieter (1986), 'The assessment: the economic borders of the state', Oxford Review of Economic Policy, 2(2), Summer.

Jones, Leroy P (1975), Public Enterprise and Economic Development: the Korean Case, Seoul, Korea Development Institute.

Jones, Leroy P (ed) (1982), Public Enterprise in Less-developed Countries, Cambridge University Press.

Kamien, M I and Schwartz, N L (1975), 'Market, structure and innovation: a survey', Journal of Economic Literature, March.

Killick, Tony (1981), Policy Economics: A Textbook of Applied Economics on Developing Countries, London, Heinemann Educational Books.

Killick, Tony (1983), 'The role of the public sector in the industrialisation of African countries', Industry and Development, 7.

Killick, Tony (1986), 'Twenty-five years in development: the rise and impending decline of market solutions', Development Policy Review, 4(2), June.

Lancaster, Carol and Williamson, John (eds) (1986), African Debt and Financing, Washington, Institute for International Economics.

Mallon, Richard D (1982), 'Public enterprise versus other methods of state intervention as instruments of redistribution policy: the Malaysian experience', in Jones (ed).

Moose, Richard M (1986), 'Alternative sources of capital', in Lancaster and Williamson (eds).

Mueller, D C (1979), Public Choice.

Nellis, John R (1986), Public Enterprise in Sub-Saharan Africa, Washington, World Bank.

Overseas Development Council (1986), Policy Focus, 'Third World capital flight', Washington.

Paul, Samuel (1985), 'Privatisation and the public sector', Finance and Development, December.

Peacock, Alan (1984), 'Privatisation in perspective', Three Banks Review, 144, December.

Pryke, R (1982), 'The comparative performance of public and private enterprise, Fiscal Studies, 3.

Riddell, Roger (1987), Foreign Aid Reconsidered, London, James Currey, (forthcoming).

Sandbrook, Richard (1986), 'The state and economic stagnation in tropical Africa', World Development, 14(3), March.

Shackleton, J R (1984), 'Privatisation: the case examined', National Westminster Bank Quarterly Review, May.

Shafik, N T (1986), Government Finance in Senegal, Dakar, USAID, (mimeo).

Tomlinson, J D (1986), 'Ownership, organisation and efficiency', Royal Bank of Scotland Review, 149, March.

Williamson, O E (1985), The Economic Institutions of Capitalism, Free Press, New York.

World Bank (1985), Ghana - Towards Structural Adjustment, Vol 1, Washington.

World Bank (1986A), Financing Adjustment with Growth in sub-Saharan Africa, 1986-90, Washington.

World Bank (1986B), Annual Report 1986, Washington.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

AL

IDE

Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Jueves, 6 de abril de 1989

Sesión 10

15:00 -15:45

Tópico: Deuda Externa y Política Fiscal en América Latina

Conferencista: Sr. J. Silva-Herzog (Centro de Estudios Monetarios para América Latina, *CEMLA)*

Lectura Requerida:

1. El documento del Sr. Silva Herzog será distribuído por separado.
2. **Edwards,** Sebastian, "The Debt Crisis and Economic Adjustment in Latin America", November, 1988. (Referirse a la Sesión 2 para el material requerido).
3. **World Bank,** World Debt Tables, Volumes I and II, 1988-89 Edition. Washington, D.C., 1988.*

* Distribuído por separado.

Jueves, 6 de abril de 1989

Sesión 11 -

18:00 - 18:15

Tópico: Completar el Cuestionario de "Evaluación del Seminario"

21:00 Comida de Clausura ofrecida por el Banco Mundial

Palabras de despedida por representantes de GTZ, CEPAL, Banco Mundial y participantes.

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

CEPAL

IDE

Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE: AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Cuestionario de Evaluación

Objetivos del Seminario

Facilitar una visión más amplia de los aspectos de finanzas públicas en el proceso de ajuste.

Analizar políticas fiscales dentro de un programa macro económico consistente.

Facilitar el intercambio de experiencias entre los participantes en relación con el diseño y ejecución de políticas fiscales en sus países.

1. ¿Cuán útiles considera usted las sesiones siguientes?

Sesión 2
"Estabilización y Ajuste Macroeconómico en América Latina"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 3
"Las Finanzas Públicas: Lecciones de la Experiencia Internacional"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 4
"La Macroeconomía del Déficit del Sector Público"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 5
"Finanzas Públicas y Cambios Exógenos: Medición y Análisis de las Causas del Déficit Público en América Latina"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 6
"Planes de Desarrollo y Políticas Fiscales: Aspectos Técnicos y Políticos"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 7
"Gasto Público y Ajuste Macroeconómico"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 8
"Diseño y Administración de la Reforma Tributaria"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 9
"Reforma de las Empresas Públicas"

Muy poco 1 2 3 4 5 6 Mucho

Sesión 10
"Deuda Externa y Política Fiscal en América Latina"

Muy poco 1 2 3 4 5 6 Mucho

2. **¿Cuán útil considera usted que ha sido el seminario en su conjunto?**

Muy poco 1 2 3 4 5 6 Mucho

3. **¿Considera usted que la duración del seminario permitió que se analizaran los temas en forma adecuada?**

Sí ☐ No ☐

Si su respuesta es negativa, ¿Cómo resolvería usted el problema?

4. **De todas las opciones analizadas durante el seminario, ¿Cuál le pareció más promisoria para su país?**

5. **¿Qué acciones de seguimiento considera usted que maximizarían los beneficios de este seminario, tanto a nivel de los participantes como del país?**

6. **¿Cuán satisfactorios le parecieron los arreglos administrativos y logísticos del seminario?**

Muy poco 1 2 3 4 5 6 Mucho

7. **Por favor, sírvase agregar cualquier sugerencia y/o comentario adicionales que usted pueda tener.**

Comisión Económica para América Latina y el Caribe (CEPAL)
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Instituto de Desarrollo Económico (IDE) del Banco Mundial

Banco Mundial

SEMINARIO DE ALTO NIVEL SOBRE:
AJUSTE CON CRECIMIENTO Y FINANZAS PUBLICAS EN AMERICA LATINA

Santiago de Chile, 4–6 de abril de 1989

Material Adicional de Lectura

1. **Lister,** Stephen. "Improving the Allocation and Management of Public Spending." Background Paper for the 1988 World Development Report (August, 1988), Washington, D.C., The World Bank.

2. **Puffert**, J. Douglas. "Social Security Finance in Developing Countries." Background Paper for the 1988 World Development Report (August, 1988), Washington, D.C., The World Bank.

3. **Taylor**, Lance. "Fiscal Issues in Macroeconomic Stabilization." Background Paper for the 1988 World Development Report (September, 1988), Washington, D.C., The World Bank.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

Office of the Vice President
Development Economics
The World Bank
August 1988
WPS 35

Background Paper for the 1988 World Development Report

Improving the Allocation and Management of Public Spending

Stephen Lister

The reforms most needed to rehabilitate a developing country's planning and budgeting system are generally simple organizational measures, not sophisticated analytical techniques.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

When a country's planning and budgeting system is dilapidated, an important first step is to rehabilitate basic budgetary and accounting functions and to generate public expenditure data that can provide a starting point for rational planning. Other basic measures include:

- The budget process should first determine what resources are available and adopt aggregate revenue and expenditure targets. Then the entire set of public expenditure issues should be looked at simultaneously. If total expenditure is allowed to be the outcome of the aggregation of sectoral bids, the overall expenditure is almost certain to be unsustainable.

- The responsibility for reconciling expenditure bids with agreed overall targets must be decentralized. Sectoral ministries should be given ceilings within which to prepare their estimates.

- It is vital that recurrent and development expenditure programs be considered simultaneously in each sector, since a country's ability to sustain the recurrent costs arising from new investment may be doubtful. In restructuring recurrent budgets, it is important to establish "norms" for the level and distribution of expenditure to provide properly for key services.

- In the long run, the budgeting and planning process should be made public in order to educate public opinion about economic alternatives, build a consensus, and spread responsibility for public spending choices.

- Monitoring development projects and programs requires explicit information on actual expenditures of individual projects and the entire program, including simple breakdowns by implementing agency, sector, source of finance, and so on. For investment programs, it must be possible to relate expenditure information to a financial plan for each project. The use of standardized project profiles for all approved projects is an invaluable technique.

- The financial woes of developed countries increase the value of external aid and the leverage exercised by aid agencies. To minimize friction with aid agencies, governments should exercise careful aid management by monitoring project preparation and implementation, working to minimize project problems, and encouraging dialogue between the government and aid agencies.

This is a background paper for the 1988 World Development Report. Copies are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rhoda Blade-Charest, room S13-060, extension 33754.

CONTENTS

		Page
I.	INTRODUCTION	1
II.	PLANNING AND BUDGETING PROCESSES	2
	Planning and Budgeting - Ideology and Stereotypes	2
	Ministry of Finance vs Ministry of Planning	3
	Dilapidation of Planning/Budgeting Systems	5
	The Importance of Budget Process and Presentation	12
	Budget Methodology - the Importance of Sequence	14
	Economic Analysis of Projects and the Preparation of PIPs	16
	Monitoring and Managing Plans and Investment Programmes	20
III.	RECURRENT BUDGET ISSUES	23
	Budget Classification	23
	"Recurrent costs arising"	24
	Recurrent Expenditure "norms" and an approach to the restructuring of recurrent budgets.	25
IV.	AID AGENCIES, AID COORDINATION AND TECHNICAL ASSISTANCE	31
	Effects of the Increasing Relative Importance of Aid	31
	Aid Management and Aid Coordination	32
	Technical Assistance	35
Annex A:	Main Sources	

Boxes

1.	Deterioration of Planning and Budgeting Systems - A Typical Scenario	7
2.	Institutional Contrasts between Countries	8
3.	Devaluation of the Budget Process - an Example	10
4.	Annual Plans	13
5.	"Objective" Ranking Criteria for Project Selection	17
6.	Project Profiles	19

ACRONYMS

CG	Consultative Group
ERR	Economic Rate of Return
FY	Financial Year
M&E	Monitoring and Evaluation
MF	Ministry of Finance
MoH	Ministry of Health
MP	Ministry of Planning
O&M	Operation and Maintenance
PBS	Planning and Budgeting System
PEs	Personal Emoluments
PER	Public Expenditure Review
PIP	Public Investment Programme
SAC	Structural Adjustment Credit
SSA	Sub-Saharan Africa
WDR	World Development Report

I. INTRODUCTION

1. This paper was commissioned by the World Bank as a contribution towards the preparation of the 1988 World Development Report (WDR). I was asked to comment on the points made in a preliminary outline of the proposed Public Expenditure chapter of the WDR and to illustrate my comments with specific examples of problems and attempted solutions.

2. The paper draws mainly on my own practical experience and that of Mokoro Limited in the field of national and public expenditure planning. As will be apparent, this experience is heavily concentrated in Anglophone sub-Saharan Africa (SSA). Readers familiar with other regions will be able to judge which comments may have a wider relevance. Annex A lists some of the published documents to which I referred in preparing this paper, but it is not exhaustive, and I also referred to a large number of unpublished World Bank documents.

3. The paper began as a series of comments on an early outline of the WDR. It retains its early structure in that it consists of a number of separate but related comments on aspects of planning and budgeting in Africa. I have arranged my observations under three main headings. Section II deals generally with the planning and budgeting process, Section III concentrates on the problems associated with the planning of recurrent expenditure, and Section IV addresses aid agency involvement in and technical assistance to planning and budgeting.

4. One theme of this paper is that many of the necessary reforms to planning and budgeting systems (PBSs) are very simple (which is not to say that they are easily accomplished). There is a tendency on the part of governments and external agencies alike to look for more sophisticated solutions than are actually required. It is not sophisticated economic analytical techniques that are most lacking but simple organisational ones. However, the basic elements of an effective PBS are interdependent; in countries where the PBS is in disarray, isolated improvements to elements of the PBS may be ineffectual.

5. Opinions expressed are, of course, my own and not necessarily shared by the World Bank or any other body.

II. PLANNING AND BUDGETING PROCESSES

Planning and Budgeting - Ideology and Stereotypes

6. The WDR outline noted correctly that there has been a trend away from comprehensive economy-wide plans towards less ambitious forms of forecasting/planning public expenditure. This trend has not been uncontested, however, and there remain very different concepts of what really constitutes planning. These contrasting attitudes contribute to the climate in which planners and aid agencies have to operate and are worth some attention for that reason alone. Moreover, some of the distrust of the trend towards public expenditure planning is based on a confusion of technical issues with ideological ones. Disentangling the two would help to promote consensus about the general importance of planning and controlling public expenditures.

7. The basic ideological divide is a familiar one, between market-oriented, non-interventionist preferences at one end of the spectrum and interventionist, 'planned economy' preferences at the other. The existence of ambivalent attitudes within government is particularly noticeable in countries that have adopted a socialist rhetoric and/or where a substantial proportion of economists have had Eastern-bloc training. The association of the capitalist World Bank and IMF with proposed reforms is enough to attach a pejorative label to them in many minds.

8. Ideological predispositions are reinforced in many cases by institutional cleavages between the Ministry of Finance and the Ministry of Planning. (As noted below, the institutional division between Finance and Planning more often that not survives attempts to combine the ministries.) There is, unfortunately, considerable validity in the stereotypes which see finance ministries as concerned with short-term expenditure control more than the long-term effectiveness of government expenditure or the overall developmental and macro-economic effects of the government budget, while planning ministries are too concerned with economy-wide aggregates over which the government has little practical control. Hence the irrelevance of many of the planning documents produced by the latter and the absence of strategic direction in budgetary management by the former.

9. Each ministry is, of course, more sensitive to the other's shortcomings than to its own, and there is a corresponding tendency for planning ministries to see emphasis on public expenditure management as the abandonment of "real" planning and the triumph of the "finance" viewpoint. This is unfortunate because the case for better public expenditure management is not an ideological one and is only coincidentally associated with a trend towards market-oriented as opposed to interventionist approaches. Fiscal prudence is not an exclusively capitalist or socialist trait. Any government will be more successful in pursuing its goals, whatever they may be, if it can make realistic assessments of the resources available to it and draw up and implement a coherent strategy for their allocation. A government which is unable to plan its own expenditure is unlikely to be very effective in planning for the economy as a whole.

10. The most effective pressure for better public expenditure planning has stemmed from the financial predicament in which SSA governments find themselves, but this also helps to explain the lack of enthusiasm for the trend within these governments. Ministries of Planning could see the trend as an opportunity to impose developmental views and a strategic perspective on the budgeting process. In practice, they are more likely to view the situation as one in which power shifts to the Ministry of Finance in order to impose a series of cuts on a whole range of government programmes. Planning Ministries are especially likely to feel marginalised by this process if their previous emphasis has been on incremental capital investment and the promotion of development projects, since development expenditures are likely to be the most severely cut.

11. In the short term the sidelining and alienation of the designated planners within government may make little difference to the implementation of emergency restructuring programmes. In the long run, however, programmes which are the product of duress rather than conviction must be less likely to yield sustained improvements in planning and budgeting systems.

Ministry of Finance vs Ministry of Planning

12. A common institutional question is whether the Ministry of Finance (MF) should be merged with the Ministry of Planning (MP). The stress on public expenditure management as a fundamental aspect of planning, if not its main component, makes this more topical. The issue is not new: there are many examples of mergers between Planning and Finance ministries and almost as many examples of a subsequent demerger. A number of countries have been through several rounds of this process. Only rarely is there a genuine fusion of MF and MP; more often a single Minister simply presides over both the pre-existing institutions.

13. The question of whether to have one ministry or two in the field of finance and planning is, in itself, not very important, although the issue of reconciling MF and MP roles is.[1] As already noted, there is considerable validity in the stereotypes that Planning and Finance ministries perceive in each other. So long as those stereotypes persist, it is inevitable that the two institutions will be uneasy bedfellows, and that the issue of merger will be perceived as the subordination of one institution to the other. In a climate of financial stringency, it is also almost inevitable that the Ministry of Planning will see merger as a means of strengthening Ministry of Finance's hand in pursuing expenditure reductions.[2]

14. It is important therefore to conduct the debate in terms of the substance of the planning and budgeting process rather than the institutional prerogatives involved. Maybe improvements in that process can be reinforced by changes in the institutional arrangements between MF and MP, but these are not the essence of the problem. For example, a common and fundamental weakness has been a disjunction between recurrent and development budgets. Often these are drawn up by separate processes, even different sets of people, with little or no account taken of the complementarities between recurrent and development activities within a given sector. Such a weakness may be perpetuated and exacerbated by institutional dichotomy between MF and MP, but "merger" will not necessarily resolve the problem, and resolution of the problem need not necessarily involve merger.

15. A number of current and proposed projects for assistance to planning agencies in SSA have been premised on an assumption that current problems in planning and economic management are a result of the weakness or decline of Ministries of Planning. This is a misleading interpretation, although it is one naturally favoured by Ministries of Planning. Their preferred inference is that their own status and powers need to be restored. In practice, a more convincing explanation is that largely exogenous economic crises have simply exposed inherent defects in planning systems and institutions. Nostalgia reveals an inability to grasp this point.

---

[1] It is also necessary to take account of the role of the ministry responsible for manpower/personnel, especially in view of the importance of planning and rationalisation of recurrent expenditures.

[2] It is significant that the successful merger of Finance and Planning Ministries in Botswana (a) involved, in effect, the takeover of Finance by Planning (the converse is more common) and (b) took place in a context of rapid expenditure growth.

16. Weakening of Ministries of Planning has undoubtedly occurred, but as an effect rather than a cause of economic crisis. They have suffered, as have other government agencies, from general debilitation associated with prolonged budgetary crises. In many cases too their status has been devalued by the sharp diminution in the development budget resources in their gift, at the same time as their morale has been undermined by the palpable irrelevance of many of the planning documents to which they devote so much of their efforts. See Box 4 below for an example.

Dilapidation of Planning/Budget Systems

17. Assessment of institutional performance and capacity is inevitably somewhat subjective, but it can be based on indices such as:

- whether, and with what lags, government accounts appear;
- the credibility of the expenditure records that are kept;
- whether a recognised budgeting routine and timetable is adhered to;
- whether Estimates appear on time (i.e. at or near the beginning of the FY to which they refer);
- whether Estimates are published and/or adequately circulated within government;[3]
- the degree of credibility of the Estimates as a means of controlling the volume and composition of public expenditure;[4]
- the information available about and the control exerted over public service employment.

---

[3] It is not uncommon to find spending ministries or departments that have never seen the Estimates that are supposed to govern expenditure. In some cases standards have deteriorated to the point where this is no longer considered abnormal by those affected.

[4] Aid agencies are very sensitive to the quality of financial administration by governments. In most cases they choose to bypass the government institutions in which they have no confidence. This is understandable, but may exacerbate the problem of rehabilitating government capacities. (For example, the separate routing of aid funds often makes it harder for governments to manage and monitor their development programmes.)

18. Two related points are worth making about the dilapidation of planning/budgeting systems and institutions in SSA:

(a) It is easily overlooked just how far the deterioration has gone in some cases. (See Box 1 for a typical scenario.) This has direct implications for the nature of the remedies that are practical and the speed with which they can be effected.

(b) At the same time, although the fundamental economic problems faced by SSA countries are strikingly similar, there are important differences between countries in their institutional performance and potential. (See Box 2 for an illustration.)

==========

Box 1: Deterioration of Planning and Budget Systems - a Typical Scenario.

The following scenario illustrates the deterioration of planning and budgeting systems that is common:

- Production of government accounts has fallen years behind. As a result budget documents, instead of comparing current estimates with previous actual expenditures, show only previous estimates (and not even previous years' actual releases).

- Aid-funded expenditures, which form a high proportion of development expenditure, do not generally pass through the government budget. Although attempts are made to note such flows, it is believed that estimates of aid funding are often too high, since there is insufficient allowance for slippage and the planned phasing of earmarked expenditures over a number of years, so that there is a danger of double counting aid flows in the aggregation of estimates from one year to another.

- Annual project estimates are not linked to planned life-time project costs, and so there is little basis for tracking and monitoring project expenditures.

- Control over the public service payroll has virtually lapsed. The government does not know the numbers on the payroll or how many of those on the payroll are "ghosts". Despite falling real wages the number of public sector employees continues to rise steadily.

- Financial control has also deteriorated, and it is widely acknowledged that actual uses of funds often differ from authorised uses. (Thus, even data on the pattern of releases of funds, when available, has to be treated with reserve.)

However, budgetary control has not completely broken down. In some respects management has been quite conservative, with releases of funds being more closely geared to revenue receipts than to the Estimates. This form of expenditure control is quite arbitrary: cuts fall across the board and cannot be anticipated by those affected. Although the payroll is a priority, public sector borrowing has fuelled inflation and both personnel and non-personnel expenditure has fallen in real terms. Growing numbers of public employees have added to the downward pressure on real wage levels. Officials of Planning and Finance Ministries are themselves poorly paid and supported, and there has been an exodus of accountants to the private sector.

==========

==========

Box 2: Institutional Contrasts between Countries.

To illustrate the range of institutional environments within SSA it is worth contrasting Tanzania with Ghana. (This is not to imply that either country represents an extreme, and it should also be noted that Ghana has made considerable progress towards rehabilitating its planning and budgeting system.)

The qualitative directions for improvement of the planning and budgeting system (PBS) in Tanzania and Ghana are quite similar but the institutional contexts are very different. While the PBS in Ghana, at its nadir, reached almost complete dereliction, the comparable Tanzanian institutions have remained much stronger, despite also experiencing the kind of deterioration described in Box 1. In Tanzania the PBS is thoroughly institutionalised - procedures are well established and their legitimacy (as distinct from their efficacy) is not seriously questioned by participants. There is a large cadre of Tanzanian planners and administrators, many of them very experienced in the positions that they hold. Their diligence is particularly noteworthy against the background of deteriorating material support and declining real salaries that applies across the public service. The documents whose production is the principal focus of activity appear regularly, in a timely fashion and are printed and circulated.

The planning and budgeting process in Tanzania is genuine and effective in the sense that actual resource allocation does depend on its outcome. This is not to say that actual allocations match those planned: through failure to anticipate fully the dearth of resources, large and systematic discrepancies between planned and actual allocations have become usual, especially in real terms. But the pattern, if not the level, of allocations is strongly determined by the planning/budgeting process, and this in turn means that participants are bound to take it seriously. This is not a trivial point, given that the formal planning/budgeting process in some other African countries is largely superficial, cosmetic and irrelevant.

The relative strength of the Tanzanian PBS obviously owes much to political continuity. It provides a very different base from which to address common public expenditure problems than was available in Ghana.

==========

19. Where dilapidation has gone furthest, it makes the task of improving public expenditure management more difficult, in two ways:

- first, rehabilitation of basic budgetary and accounting functions becomes a prerequisite;

- secondly, there is an absence of the current and historic public expenditure data that should provide the starting point for rational public expenditure planning.

The latter point relates not only to whether basic information (such as recent actual expenditure data) is available, but also to the credibility of information that emerges from a budgetary system that many participants have learned from experience not to take too seriously (see Box 3).

==========

Box 3: Devaluation of the Budget Process - an Example

Deterioration in budget processes easily becomes a vicious circle. The following example, based on a real case, illustrates how budgetary systems can be eroded and also how the consequent disillusion itself becomes an obstacle to the system's rehabilitation.

Original Situation: In the 1970s standard budget guidelines were issued by the Ministry of Planning and Finance. In the case of Health, these were followed by guidelines from the Health Planning Unit to provincial directors and divisional heads. The format of the Budget for the Ministry of Health was standardised, meaning that all Budget preparation forms could be pre-printed and each year the Planning Unit issued a new edition of a complete set of forms for preparing the annual Estimates. Budget preparation began early and followed a well-formulated timetable. There were established procedures for consultation between the different levels of the health system and the national ministry provided all concerned with a list of standard costs, revised annually, for use in the detailed computation of budgets. The list contained standard costs for feeding patients and trainees, for travel and miscellaneous allowances, vehicle purchases and running costs, and for a variety of standard office and health facilities equipment. Those compiling the Estimates had details of expenditure so far during the current year. Initial preparation of the Estimates took place over a two-month period, during which Planning Unit staff would be expected to visit all provinces; this was followed by a month in which the Planning Unit appraised all submissions and prepared the aggregated Ministry of Health Budget. Submission of the draft to the Ministry of Finance then took place three months before the actual start of the financial year in question.

Present situation: Things are now very different. In principle nothing has changed, but the discipline of the timetable has been lost, and the data essential for preparation and evaluation of the budget are no longer available. In the last budget cycle, the Ministry of Finance circular did not reach Ministries until after the deadline for Estimates to be submitted; it contained no resource guidelines but introduced changes in the procedure for reckoning certain items that nullified preparatory work that the Ministry of Health had taken on its own initiative. Moreover, because statistics were generally lacking and no unit costs were available, provincial directors and heads of departments set about the budget preparation with no sense of purpose. Knowing what had happened in previous years they failed to adhere to the timetable established by the Planning Unit, which in the end had to prepare a consolidated Ministry Budget in the space of a single weekend without much regard to the few departmental and provincial submissions that had been received. No evaluation was possible and consequently the MoH was unable to provide the type of justification of individual items and sub-items at provincial

level that the MF sought. The budget that eventually emerged bore little resemblance to what had been submitted, and as the year proceeded the Ministry of Finance released only 50% of budgeted provision for non-personnel items. No guidance was given as to how the cut in funds should be allocated between items and sub-items within the budget and expenditure on some items, such as the feeding of patients, exceeded both the releases and the budgeted provision.

Consequences: Not surprisingly, beleaguered health officials have become rather cynical. They know that the government cannot fail to allocate resources to the health services. They know that whatever they submit as a budget request will not be reflected in the ultimate approval, which will arrive late and be at variance with the funds subsequently released for expenditure. They also know that whatever they submit, or even whether or not they submit a draft, will not be assessed by the Ministry of Health which, anyway, exercises little authority or sanction. A cycle of mutually reinforcing scepticism prevents the budgetary exercise from being taken seriously by any of the participants, and this in itself can stymie attempts to rehabilitate the system.

==========

The Importance of Budget Process and Presentation

20. Managing public finances in SSA has become typically an exercise in crisis control. In a crisis atmosphere, horizons shorten and there is a tendency also to narrow the group of effective decision takers. In the long run, however, better public expenditure management requires a more public process. Indeed, the process of planning may be at least as valuable as the budget/planning documents that are its visible product. The opportunities for educating opinion about economic alternatives, for building consensus, and for spreading responsibilities for public expenditure choices more widely are lost if the process is always conducted in secrecy and in haste.

21. The task of rehabilitating budgetary systems may be long and difficult, especially where current dilapidation is particularly extensive. It may be some time, for example, before government accounts can be restored to the point of providing a reliable benchmark for each year's budget exercise. At the same time some improvements are available that are relatively simple and straightforward to implement. The way information is presented to (ostensible) decision makers is often a case in point.

22. Thus, for example, budgets (and Annual Plans - see Box 4) that are presented to parliaments and published are often remarkably uninformative documents. A simple shortcoming (though it may on occasion be less an oversight than a reflection of the state of monitoring and accounting records) is the failure to show previous years' actuals and/or future years' projections alongside the current year's estimates. This is particularly common where projects in the development budget are concerned. Estimates commonly give a so-called "one-year time-slice" of a project without indicating its funding requirements in subsequent years or revealing its previous expenditures (or if these are shown, the period covered may be unspecified or inconsistent among projects). Very often projects exist for years without more description in the budget documents than a short title. In such circumstances, parliamentary discussion of the budget is almost bound to be perfunctory and superficial. The less information is provided in the budget documents, the less effective they are as a means of controlling and directing actual expenditure.

==========

Box 4: Annual Plans

The concept of an Annual Plan that translates a medium-term plan into a practical annual programme is superficially attractive, but does not seem to work well in practice. Typically, the preparation of the Annual Plan suffers from the absence of a realistic medium-term financial framework. In principle, the Five Year Plan (together with a longer term Perspective Plan if there is one) provides the broad "resource envelope" to which the annual exercise has to conform. Most often, the economy is so far off its anticipated course that these documents are no longer relevant.

The Annual Plan is usually prepared as part of the same exercise as the annual budget and there is therefore no question of an annual budget narrowly concerned with government expenditure being set within the context of a prior, more general, Annual Plan. The detailed tables of the Annual Plan add little to those provided in the budget documents, and nor does the Annual Plan provide projections that extend beyond the budget's horizon. A lot of administrative effort goes into the preparation of the Annual Plan but to very little practical purpose. To a large extent the document becomes an end in itself. (It is what the Planning Ministry does, while the Budget is what the Finance Ministry does.)

A more relevant approach requires:

(a) that medium term Plans be more closely geared to the planning of public expenditure (recurrent as well as capital) within a realistic resource envelope;

(b) that the annual budget itself be seen as the principal mechanism through which the Plan is effected and, if necessary, adjusted to new circumstances;

(c) that the planning horizon for both Plan and budget should always extend two to three years beyond the current fiscal year.

==========

23. It is worth paying attention too to the way in which budgetary aggregates are summarised, since this can affect the terms of debate on budgetary policy. A key concern should be the size of the budget deficit (defined as the gap between expenditure and domestic revenue) and there should be special attention to how the deficit will be financed (by external aid and by foreign and domestic borrowing). This essential information is often obscured by arbitrary classifications of revenue (e.g. by treating domestic borrowing as revenue on a par with tax receipts) and, most seriously, by a failure to present reasonable forward projections of the budget. It is not just a question of failing to present this information publicly: all too often the planners themselves do not compile it or see the need for it.[5]

Budget Methodology - the Importance of Sequence

24. In principle, the determination of the budget involves the solution of a set of simultaneous equations that reconcile revenues with expenditures and so forth. In practice, the process of formulating a budget is as much political as it is technical or economic, and it is bound to be iterative. Whether the outcome of the process represents a sustainable budget path and whether the allocation of resources is optimal, subject to the general constraints on overall resource availability and other specific constraints that may apply, may well depend on the sequence the process follows.

25. A key aspect of the approach advocated in the present paper is that it involves looking at the entire set of public expenditure issues simultaneously. A system that allows major expenditure decisions to be taken separately and at different times is bound to generate an upward pressure on expenditures and is very unlikely to achieve a satisfactory overall pattern of expenditure.[6] If total expenditure is not explicitly targeted, but allowed to be the outcome of a process of aggregation of sectoral bids, the aggregate expenditure target that emerges is virtually

---

[5] A similar sloppiness is often shown in studies of public expenditure when the allocation of resources among sectors is analysed without making a distinction between discretionary and non-discretionary elements of expenditure. The biggest non-discretionary item is usually debt-service, and analyses of expenditure that do not separate out public debt can be particularly misleading. A sector's share of discretionary expenditure may have held up even when its share of total expenditure has fallen sharply.

[6] But viewing the entire set of public expenditure options simultaneously means that there has to be direct competition among projects/programmes that may be at different stages of definition and appraisal. This creates methodological problems that are discussed later in this paper.

certain to be unsustainable. The reconciliation of expenditure with resources actually available then takes place piecemeal and often arbitrarily, through more or less selective cuts in expenditure, or withheld provision, or non-compensation for inflation, or erosion of public-sector salaries. Responsibility for post hoc reconciliation of actual expenditure with resources available usually falls to the Ministry of Finance, which then attracts the odium that goes with it, together with justified criticism for the inefficiency of such methods of expenditure control.

26. It is crucial, therefore, that the budgetary exercise should begin with the assessment of overall resource availability and the adoption of aggregate revenue and expenditure targets. The initial assessment and proposal of targets should involve collaboration between the main economic agencies of government (notably the Ministries of Planning and Finance and the central bank). The proposed targets should then be explained and accepted at the political level before the detailed elaboration of the budget proceeds.

27. The next requirement is that responsibility for reconciling expenditure bids with the agreed overall targets must be decentralised. It is neither effective nor efficient for this role to be left entirely to the central MF/MP. The overall target needs to be disaggregated and sectoral ministries given ceilings within which to prepare their estimates. This forces sectoral agencies to reveal priorities and is often resisted for that reason: ministry headquarters would rather simply aggregate bids and force MF/MP to do any cutting, even though the sector ministry is usually in a better position to judge which cuts are least undesirable.

28. The process of disaggregation of the overall targets among sectors tends to make theoretical economists uncomfortable. In theory, one should chose between all alternative uses of expenditure at the margin, and the methodological basis for segmenting the allocative mechanism is shaky. Nevertheless, the sectoral disaggregation of targets is not in practice as difficult as it might seem in prospect, particularly since the exercise never starts from a blank slate, but begins with the inertia of an existing pattern of expenditure.[7] The best way to test the appropriateness of sectoral ceilings is to draft a budget that complies with them. It is then possible to judge whether there are imbalances that should be corrected by transferring resources from one sector to another.

---

[7] See also the sections of this paper dealing with project selection and the search for recurrent expenditure "norms".

Economic Analysis of Projects and the Preparation of PIPs

29. Even leaving aside the relationship between an investment programme and recurrent spending, which is considered in a later section of this paper, the preparation of a Public Investment Programme (PIP) is considerably less straightforward than the preparation and appraisal of the individual projects of which it is comprised. Among both aid agencies and governments there is a tendency to assume that the task of PIP preparation consists simply of the simultaneous analysis of a lot of projects, using familiar project analysis techniques.

30. A little reflection shows that this cannot be the case, for the following reasons:

- The PIP has to take into account the stock of ongoing projects. Typically, these are numerous and varied, and documentation of them, especially of ones that are not aid-funded, is patchy. Many are more properly recurrent than investment activities; others are, in principle, investment projects, but are kept alive at a level of funding that does not move them appreciably nearer to completion. To take existing projects as given and consider only the merits of potential new projects is not an option because:

  (a) most often, available resources are inadequate for the completion of all ongoing projects;
  (b) the necessary information as to what is involved in the completion of ongoing projects is not readily available, but has to be sought as part of the exercise; and
  (c) the continuation of many existing projects is not defensible even in spite of the sunk costs argument.

- There is the widely recognised, but recalcitrant problem of finding appropriate techniques for comparing dissimilar projects that compete for funds (education vs infrastructure, for example). (See Box 5.)

- There is the less appreciated, but equally awkward problem of asynchronism between projects. The project cycle is a familiar concept. Projects pass through various stages between identification and completion. All but very small and simple projects are likely to pass through successive stages of progressively more rigorous planning and appraisal before implementation. A full-scale cost-benefit analysis, or equivalent analytical technique, is only applicable when the project has been worked out in detail. Preparing a PIP requires considering all the projects that represent potential claims on resources during the planning period, but they will not all be at the same stage of the individual project cycle.

==========

Box 5: "Objective" Ranking Criteria for Project Selection

There is a recurring tendency for economists/planners to try to escape from the element of subjectivity in deciding between competing claims on expenditure. Devising ranking systems whereby projects are awarded points according to their perceived contribution to various objectives is one ploy. But it rather gives the game away when the devisers of the system have to reject the results as "wrong". One example was reported in roughly the following terms:

> In this activity the project has made a substantial and unambiguous contribution. In collaboration with senior [Ministry of Planning] staff a set of 18 criteria were established. The development of the computer network allowed all [PIP] projects to be ranked in order of priority in order to prepare a core programme.
>
> At the same time, it was noted that mechanistic application of criteria produced some maverick results. The criteria were heavily weighted in favour of directly productive activities and the first round of ranking virtually eliminated projects in the social services sectors. It was therefore necessary to depart from a strict ranking based on economic criteria by pre-selecting the sectoral composition of the investment programme. (Emphasis added.) In view of the time constraint, this was no doubt inevitable, but the project team should review the bases of the criteria in order to allow for linkages between the outputs of the social services projects and economic productivity.

Why look for a key to the back door when the front door is open?

==========

31. For those who start from a paradigm in which rigorous analysis of an individual project leads to a yes/no decision on its implementation, according to whether it meets some objective criterion, such as a specified ERR, the puzzle of how to compile a defensible PIP is indeed perplexing. It need not be. The practical approach is:

(a) to segment the problem by dividing the available resource parameters among sectors, so as to confine direct trade-offs between projects initially to ones that are broadly similar;

(b) to see the process as a matter of screening, in which the initial acceptance of projects is conditional on their meeting satisfactory appraisal criteria at the appropriate stage in their life-cycle;

(c) to recognise that the proposed phasing of projects is as important an issue as outright acceptance or rejection.

32. Within this framework, the importance of maintaining a rolling multi-year perspective becomes clear. Given lead times and implementation periods for projects, freedom of manoeuvre is much more limited in the short term than over several years.

33. The preparation of standardised project profiles (see Box 6) is a simple but invaluable technique in preparing and managing a PIP.

==========

Box 6: Project Profiles

The documentation that projects ultimately require varies a great deal, depending on the nature, size and complexity of the project, the requirements of the funding agency and so forth. But decisions need to be taken at many stages before full documentation and implementation of a project. These include preliminary judgments whether the project merits the effort of fuller write-up and appraisal, what its costs and phasing are likely to be, and which potential source of funds may be appropriate. The discipline of preparing simple standardised project profiles at an early stage is invaluable. (See Botswana's National Development Plan and Planning Officers' Manual.)

Both the words and numbers of a profile are important. It is idle to manipulate figures that cannot be related to a basic project description, while it is also vital at an early stage to estimate the likely costs and potential benefits of a proposed project, even though these estimates will require subsequent refinement.

The essential components of a project profile are:

(a) a concise description of project content, objectives and anticipated effect;

(b) an unambiguous identifying title and project number;

(c) an estimate of project costs from commencement to completion;

(d) a proposed annual phasing of costs;

(e) an estimate of the recurrent costs arising from the project.

The profiles need to be on the record and compiled according to the same currency and price conventions. In updating investment programmes annually, the summary figures for all profiles need to be revised, to reflect both general changes (in price levels, for example) and specific changes in the cost of phasing of individual projects. Project descriptions should need less frequent amendment but provide an important check on whether the original project concept is being adhered to. Crucially, project profiles and development budget categories must be made consistent with each other, so that the profiles provide the bridge between the medium term plan/investment programme and the annual budget.

==========

Monitoring and Managing Plans and Investment Programmes

34. Monitoring of development projects is rightly a matter of concern. This is appropriate both to keep track of projects' implementation and to discover whether they have the effects intended. But the factors that are most important in the monitoring of a plan/investment programme as a whole are not necessarily the same as for the individual projects of which it is comprised. Different types of information may be required and by different sets of people, and for the programme as a whole there is a premium on standardised project information that can be aggregated. Very often elementary information that might be regarded almost as trivial by someone responsible for the M&E of a particular project would actually be extremely useful if consistently available for all projects. When it comes to the aggregate monitoring of a PIP, there is a clear order of priority for the information that is needed, and sophisticated but partial information is much less useful than basic but comprehensive data.

35. The first requirement is information that should be, but often is not, available from government accounting records concerning actual expenditures by individual projects and the programme as a whole. Simple breakdowns by implementing agency, sector, source of finance etc. are crucial, as is their prompt availability. Of course financial information of this sort may conceal as much as it reveals. Physical progress may not be commensurate with expenditure, a project whose financial implementation is going according to plan may nevertheless be totally misconceived and so forth. Financial monitoring is not enough, but it is a vital starting point and first priority.

36. As far as investment programmes are concerned, a second elementary requirement is that it must be possible to relate expenditure information to a financial plan for each project. The development and maintenance of standardised project profiles for all approved projects is an invaluable technique (see Box 6). Initially, at least, monitoring data should follow the classifications used in project administration, even if these do not correspond precisely to economic or other relevant categories.

37. Basic monitoring is thus strongly related to the rehabilitation of government accounting systems, but this may be a long process and substitutes may have to be sought in the interim. In setting up a system to monitor the investment programme independently, the emphasis should be on making basic information rapidly available. It is important to pay attention to the relevant incentives. Firstly, information should be collected by those who are intended to use it, since the "customer" for information has the greatest interest in it and should be best able to identify priorities in its collection and analysis. Secondly, there need to be appropriate incentives for the providers of the information. (A simple incentive is to make releases of funds conditional on the prior provision of information about previous expenditures.) Conversely, where the supplier of information does not have a very direct interest in the exercise, his task can at least be made less onerous by accepting information in the form that comes most easily to him.

38. Often the pressure for better monitoring comes from aid agencies. This can be useful. For example, the external incentive provided by the desire to present progress reports to a CG may help to counterbalance a government's natural preoccupation with short term crisis management. On the other hand, it is important that the government should be persuaded of the value of the monitoring exercises proposed and able eventually to sustain them without external assistance.[8]

39. Most investment programmes are poorly managed. This is indicated, inter alia, by the perpetuation of projects that fail to progress and by the difficulties commonly experienced in rapidly utilising available aid. Improvements depend both on better current monitoring of the programme and on better forward programming.

---

[8] " ... monitoring and evaluation has been largely donor-led, whether at project or national level. The information generated and the time-frames for its production have almost always been defined by donors. There has consequently been little useful feedback into the national budgeting and planning processes. This predominance of donor interest in monitoring and evaluation is echoed in the frequent -- almost universal -- complaint that government monitoring and evaluation has been ineffectual on account of a lack of political commitment by governments. Without that commitment and a domestic demand for monitoring and evaluation, it seems likely that past failures and inadequacies will only be re-created."

" ... government monitoring and evaluation systems established in some SSA countries have been overly complex, bearing the hallmark of external design and inattention to local personnel and other constraints. One common result has been that monitoring and evaluation systems set up on donor instigation and principally by means of technical assistance have rarely survived the withdrawal of such assistance." (Both quotations are from Commander, 1987.)

40. A large part of the difficulty of managing an investment programme well arises from uncertainty about (and fluctuations in) the level of resources available, and from the fact that arbitrary expenditure control is usually easier to impose than selective restriction. The concept of a "core" programme is an attempt to address both these difficulties. The aim is to ensure that the most important projects are not interrupted by delays in releasing funds on account of general financial stringency. Since funds available can never be forecast with certainty, it will be possible to protect the core only if (a) the total PIP is not too optimistic in its resource assumptions and (b) the core does not form too large a proportion of the PIP.

41. Furthermore, core projects can be protected only if there are adequate budgetary mechanisms for identifying them and for releasing funds in a discriminating way. Funds for core projects should be released automatically at the beginning of each accounting period, whereas funds for non-core projects should only be released selectively and after a further review of the financial position.

42. However, non-core projects that require "lumpy" expenditure (e.g. a single construction contract) should also not be interrupted once begun, and may therefore have to be treated in the same fashion as core projects once they have been allowed to commence. The corollary is that non-core projects should not be allowed to start unless sufficient funding to complete them is assured. In turn, since implementation of most projects extends over a number of years, this emphasises the importance of basing budget and PIP on a rolling, multi-year perspective of resource availability. Put another way, designation of core programmes may be a useful expedient, but it should become much less necessary as expenditure planning is strengthened.

43. An important aspect of PIP management is to ensure that funds are used for their designated purposes. Control systems can help, but cannot solve the problem in the absence of political and bureaucratic commitment.[9]

---

[9] One development expenditure control unit found that its own funding was the first to be diverted - by the Ministry of Planning itself!

III. RECURRENT BUDGET ISSUES

Budget Classification

44. Criticism of the traditional distinction between recurrent and development (or capital) budgets is commonly overdone. The division often works poorly in practice, but there is more to be gained by improving than by abolishing it. The distinction between recurrent and capital expenditure corresponds, albeit roughly, to the distinction in economics between consumption and investment. It encourages attention to the problem of financing the recurrent costs arising from development expenditures. The biggest drawback of the recurrent/development demarcation in practice is that it can allow the two budgets to be drawn up separately, by different processes and even by different groups of people. Particularly now that the ability of governments to sustain the recurrent costs arising from new investment is so often doubtful, it is vital that recurrent and development expenditure programmes are considered jointly within each sector. But equally, within each sector as well as overall, it is important to analyse proposed programmes into their recurrent and capital components.

45. In many cases, existing demarcations between recurrent and development budgets cannot be taken at face value:

(a) So-called projects funded under the development budget are often locally-funded recurrent activities.

(b) The same applies, but in a less straightforward way, to many aid-funded projects and project components; aid agencies have recognised that it is pointless to finance new investments in sectors where recurrent activities are grossly underfunded, but they are constrained to dress up their aid as development support. There is a spectrum ranging from rehabilitation projects which are, in a sense, genuine investments, but ones which would not have been necessary but for the neglect of O&M, to the funding of equipment and materials that constitutes more or less direct recurrent budget support.[10]

(c) It is also rightly pointed out that some recurrent activities (health and education provision for example) can represent very important forms of investment.

---

[10] Also, of course, much aid may fail to be reflected in the government budget at all.

46. The recurrent/development categorisation is not the only one that is potentially very helpful for the analysis and preparation of public expenditure programmes. Often, the structure of the budget, particularly the recurrent budget, does not easily yield elementary breakdowns of expenditure which relate to crucial policy issues that arise in expenditure programming, such as the breakdown between expenditures on primary and secondary health care, between different educational institutions, or between different districts or regions. (A classification that easily yields one type of breakdown - e.g. between salaries and other charges - may be correspondingly opaque in other respects.)

"Recurrent costs arising"

47. The importance of anticipating the recurrent costs (and specific O&M requirements) arising from new development projects is now a commonplace. However, largely because of past neglect of this point, there is hardly anywhere where monitoring the recurrent costs associated with new projects is more than a small contribution towards the task of assessing the true level of future claims on the recurrent budget. The issue has macro dimensions that cannot be adequately addressed by a micro (project) approach.

48. In the first place, public finances are often in such disarray that it is futile to look to precedents to establish the likely recurrent funding requirements of a new project. Reliable historic figures on actual recurrent costs associated with previous projects are rarely available, and, in a context of chronic underfunding of the recurrent budget, actual experience is likely to understate true costs. Secondly, preparing an accurate estimate of a project's recurrent funding requirements is itself no guarantee that they will actually be met (though it may be a valuable aid to project selection).

49. The macro questions that cannot be reached through project analysis alone include:

(a) The development implications of the development budget: development projects, particularly locally-financed ones, are often grossly underfunded and their cost to complete (which may well not be justifiable) is commonly a matter of conjecture.

(b) The development implications of the recurrent budget: a substantial backlog of maintenance has often built up so that rehabilitation projects may make a substantial prior claim on development funds available. Also, built-in growth of services (e.g. primary education) may have implications for development expenditures (e.g. school construction).

(c) The recurrent implications of the recurrent budget: this has two components - the expenditure claims implicit in current underfunding of recurrent services, and predictable growth in those commitments that may not carry corresponding project costs to which the recurrent arising could be attributed. This aspect may be particularly recalcitrant, as discussed in the paragraphs that follow.

Recurrent expenditure "norms" and an approach to the restructuring of recurrent budgets[11]

50. Questions about the appropriate level and pattern of recurrent expenditures are increasingly being raised in parallel with World Bank PER/PIP exercises. In one exercise related to the framing of a Structural Adjustment Credit, the government was asked to "establish expenditure norms for the main [non-personnel] items of expenditure for the Ministries of Agriculture, Health and Education" and to establish procedures for implementing the norms. Some of the lessons from the exercise are of general relevance.

51. There was considerable confusion as to what this exercise was to comprise, although the background situation was clear enough. During years of financial stringency (a) the real value of resources available to the Health, Education and Agriculture sectors of Government, among others, had fallen and (b) the proportion of those resources devoted to Personal Emoluments (PEs) had increased.[12] One of the aims of the recovery programme had therefore to be to reverse both these trends - i.e. to increase the levels of resources allocated to these key sectors and at the same time to correct imbalances in resource allocation within each sector.

---

[11] The system advocated in this section reflects that successfully developed in Botswana over many years.

[12] It is not always the case that declining real resources are accompanied by an increase in the share of resources devoted to PEs. The sight of personnel with virtually no material support suggests this conclusion, but it must be remembered that there have often also been drastic declines in real salary levels. The primary problem is the poverty of governments; the maldistribution of residual resources is a secondary effect.

52. Such imbalances are often quite tangible: teachers without text books, extension workers without transport, hospitals without drugs, and so on. But, although the problem is highly visible, years of stringency, ad hoc budgeting and arbitrary expenditure control, combined with poor expenditure records, make it difficult to know what the level and distribution of expenditure now ought to be in order to provide properly for key services. Hence, a search for "norms" to guide the allocation of resources as recovery commences. There are potentially "norms" at several different levels, all of which may be relevant to aspects of the problem.

53. Thus, for example, norms may be sought at the level of efficiency within operations. If you have a car, you also need the fuel etc. to be able to run it, and a norm here might simply be a rule of thumb based on experience as to how much ought to be provided for the running cost of each vehicle. Such an approach can be very valuable, both in framing and in evaluating budget estimates, but it also has its limits. While it may be straightforward to establish a general rule about the true running costs of a vehicle, this still leaves open the question of who actually needs vehicles and how many of what sort. Similarly, rules of thumb are often used to relate provision for the maintenance of a building to its original construction cost, but such rules do not address the question of whether existing buildings are adequate or appropriate for their purposes.

54. A second level at which norms may be sought concerns the balance between programmes or activities within a sector. For example guidelines could be adopted about the balance between primary and secondary services in both the health and education sectors, or about, say, the balance between agricultural extension and agricultural research.

55. There is a third, more aggregative, level at which one could ask, for example, what would be the level of resources required to run entire sector programmes properly (how much would it cost to fully fund the existing health service?) Or, going further, attempts could be made to relate financing levels for services to external criteria, such as relating services required to the size of the target population (universal primary education, Health for All, etc).

56. Finance Ministries, and especially their staff responsible for administering the recurrent budget, are likely to interpret norms rather narrowly. Standardised unit costs are often a familiar concept, though they may have fallen out of use in conditions of rampant inflation and budgetary chaos. Beyond that, the search for norms may be interpreted mechanistically in terms of rather arbitrary ratios between different subtotals of the budget.

57. Two important points emerged very early on in the exercise:

(a) Proper recording and control of expenditure is a sine qua non: without improvements in this direction norms of any kind will not be meaningful or enforceable.

(b) There is considerable scope for the introduction (or re-introduction) of standardised unit costs (unit cost norms) as a way of instilling discipline and ensuring consistency in the compilation of the Estimates.

58. Concerning unit cost norms, the following points should be noted:

(a) Few are available "off the shelf". Determining appropriate unit cost norms is not always simple (local prices change rapidly as the currency depreciates and historic data, even if available, may not be a reliable guide to true costs), but in time a useful body of such norms could be built up.

(b) To be of most use, such norms need to be available at the commencement of each year's budget cycle so that they can be used when the estimates are first drafted. Their availability later, as the Estimates are reviewed and finalised, is also useful but not an adequate substitute.

(c) Norms of this kind should not be applied too rigidly, or they may create problems of the type they are intended to help to remove. For example, similar vehicles may quite legitimately have different operating costs when used for different purposes or in different regions. There needs to be an element of flexibility to allow for this. Such flexibility could enter both in the initial preparation of the Estimates and in the scope for subsequent virement.

59. Finally, useful as unit cost norms might be, it would be a delusion to think that the entire recurrent budget could ever be satisfactorily built up from a series of unit cost norms.[13] Broader approaches (within which unit cost norms have a role) are likely to be of more value in helping to restore a satisfactory pattern and an adequate level of recurrent expenditure. The paragraphs which follow set out a proposed budget methodology.

---

[13] The search for mechanistic ways of drawing up a budget has parallels with the yearning for "objective" project selection criteria (see Box 5).

60. How budget guidelines could work. It has to be accepted that the central planning/finance ministry does not always know best, especially when it comes to the details of the effective management of specialised services. For example, it does not make sense for MF/MP to try to stipulate an exact allocation of hospital expenditures as between different items: such a decision should be left primarily to the judgement of professionals in the Ministry of Health, and within the Ministry of Health as well decisions about the allocation of resources may need to be decentralised to varying degrees. The problem is to allow enough decentralisation in the interests of efficiency while retaining enough control to ensure that expenditure patterns correspond to national priorities (and that the overall level of expenditure matches appropriate macroeconomic targets).

61. A practical way of doing this is to issue, at the beginning of each budget cycle, expenditure guidelines on what total resources will be available and how these resources should be distributed between broad categories of activity. For example, the Ministry of Education might be told to budget for an increase in real terms of 10%, but to hold higher education spending constant while increasing primary education expenditures by 20% Within these guidelines, and probably subject to restrictions on recruitment and PEs, it would be left to the Ministry to determine the best allocation of resources within each activity, although their proposals would be subject to review by MF/MP in the normal way. Guidelines could also be issued on the allocation of expenditures as between regions, etc. It would be necessary to restrict Ministries' freedom to vire funds from one activity/region to another, but virement within activities/regions need not be so tightly controlled.

62. It must be emphasised that, in order for such guidelines to be used as a way of planning expenditures, the framework of Government budgeting must permit the analysis of expenditures by programme. For example, in Health one would want to be able to categorise votes into, say, rural/urban, primary/secondary and by region, etc. Ensuring that this can be done is more important as a first step than the derivation of the guidelines themselves.

63. The application of guidelines of this sort would have to be iterative: i.e. there would have to be some scope for adjusting the guidelines in the light of Estimates submissions if submitting agencies were able to present a compelling case for doing so. At the same time it is important that agencies do not avoid hard choices between alternative uses of funds simply by always appealing to MF/MP for more and shifting to MF/MP the responsibility for any cuts or omissions that may be needed. If, therefore, a ministry is convinced that one of its activities needs more funds than its guideline allows, the ministry should be required to propose an equivalent saving from one of its other activities.

64. Also, such guidelines would have to aim at a gradual change in the composition of expenditure - the "ideal" pattern could not be achieved in one step but would have to be sought over a period of years. Guidelines could only work at all in a context where funds actually released correspond closely to the provision in the Estimates, and it would be essential to have timely expenditure records from which compliance with the guidelines could be monitored. In many cases, the decentralisation that is implied may be hampered by the fragmentation of sectoral responsibilities among a number of ministries. The approach also underlines the importance of the development of economic planning skills within sectoral ministries. (Again the development of effective ministerial planning units may be hampered by the institutional fragmentation of sectors.)

65. Deriving Expenditure Guidelines. There remains the question of how to set such guidelines. The problem is probably not as difficult in practice as it may seem in principle. It would be very difficult to determine a single "correct" level of resources to allocate to any activity, but all that is practically required is a sense of the qualitative directions for change. Thus, if it is apparent that, say, primary health care has been underfunded, expenditure guidelines should be set that allow a faster rate of growth for primary health care expenditures than for others; this should be continued (probably over several years) until the imbalance ceases to be obvious, but, since the process takes time, it is not necessary to know at the outset exactly what its outcome will be - guidelines can be continually revised in the light of experience.[14]

66. All the same, it would be interesting to know, at least approximately, what would be the cost of operating Government's existing services properly. Indeed, this is a crucial piece of information if Government is to plan its public expenditures rationally over the medium term, and it has a direct bearing on the balance that should be struck between development and recurrent expenditures. There is little point in allocating incremental resources to new capital investment by Government if the real need is for additional recurrent expenditure to enable past investments to be properly utilised. Thus the appropriate size of the Public Investment Programme (PIP) cannot be determined independently of decisions about the volume of recurrent expenditure required. This is true for individual sectors as well as for the public expenditure programme as a whole.

---

[14] Of courses, to allow for rational adjustment by sectors the guidelines must have a medium-term horizon, although next year's ceiling may be definite while subsequent years' guidelines are more indicative.

67. This point would apply even if there were no backlog of unmet recurrent expenditure requirements, since new development expenditures generate additional recurrent expenditure commitments that need to be allowed for within recurrent expenditure guidelines. At project level it is vital to anticipate the recurrent implications of each project. The PIP project profile format (see Box 6) should take this into account. As a minimum, for each project an estimate should be made of the eventual annual recurrent cost to Government arising from its completion. As the planning system strengthens it should be possible to become more precise and to track the year-by-year impact of each project on the recurrent budget.

68. Several pragmatic ways to estimate total recurrent expenditure requirements, either for particular programmes/sectors or for Government as a whole, might be considered:

(a) An extrapolation of requirements starting from a "normal" period within the country.

(b) Cross-country comparisons.

(c) Comparison of Estimates requests with actual provision.

(d) Building up of an estimate from unit cost norms, as already discussed above.

69. These approaches are not mutually exclusive and each might have more relevance to some sectors than to others. With (a) the difficulty is likely to be finding an appropriate reference point, since it is so long since services were adequately funded and there have been such changes in price levels and in institutional arrangements. With (c) there may be a problem that compilers of Estimates requests have become cynical about the exercise, knowing from experience that even funds provided in the approved Estimates are by no means assured (see Box 3). Availability of data may be a problem in attempting to employ cross-country comparisons. Also, some activities (primary education, say) may be institutionally very similar in different countries, enabling comparisons to be easily drawn, but for others (agricultural extension, perhaps) it may be harder to find good international analogies.

IV. AID AGENCIES,[15] AID COORDINATION AND TECHNICAL ASSISTANCE

Effects of the Increasing Relative Importance of Aid

70. The financial stringency that affects most SSA governments naturally increases the relative importance of aid resources. This has a number of effects, including:

(a) It increases the leverage that aid agencies can exert. Not only do governments need the money worse, they are also less able to mitigate leverage through fungibility. Ability to accept aid that has conditions attached (whether these relate to policy or procurement) without altering the recipient country's overall expenditure profile depends on the recipient having its own resources that it can direct to the activities that aid agencies are unwilling to support. Nowadays many countries find it very difficult even to meet minimal local funding requirements that "unlock" external funds, and the scope for simultaneously satisfying aid agency preferences without substantially altering the recipient's resource allocation pattern is much reduced.

(b) As the relative importance of aid increases, so responsibility within government for handling aid matters becomes a more valuable prize. This factor underlies the contentiousness of the allocation of institutional responsibilities for aid coordination in many countries (see below).

(c) Increasing dependence on aid, combined with deterioration in standards of government administration and accounting, means that a large proportion of development expenditure bypasses the regular government budget and accounts procedures. This is an understandable reaction by the aid agencies, but it increases the difficulty of establishing what is actually happening in terms of public expenditures. Similarly, the monitoring of aid-financed expenditures and projects tends to follow the disparate requirements of various aid agencies, and may make more difficult the government's task of monitoring the overall expenditure programmes. (The tendency for the boundaries between recurrent and development support to become blurred has already been mentioned.)

---

[15] Regarding terminology, a more restrictive use of the term "donor" would be helpful. The term is often used loosely to embrace all aid agencies irrespective of the terms on which they provide aid. Even grant aid should not be treated as a free resource (it may for example have substantial recurrent cost implications for the recipient) and it is undiplomatic for the World Bank to style itself a donor when much of its aid is on comparatively hard terms.

71. Understandably, the effectiveness with which aid is mobilised and used has become a matter of concern both to aid agencies and to recipient governments. "Aid coordination" is a recurring topic in the dialogue between aid agencies and governments. Unfortunately, as I explain in the next section, the dialogue is often unproductive because of a failure to appreciate the diversity of tasks that the term "aid coordination" may cover.

Aid Management and Aid Coordination

72. Typically the dialogue about aid coordination takes place in terms of where the institutional responsibility for aid coordination should be located, and the arguments are often sterile because of failure to appreciate the subtleties of the issues involved. The management of aid has many aspects; once these are clearly distinguished, it becomes clear that there are legitimate and complementary roles for the various government bodies that are usually involved in arguments about the proper allocation of aid-related responsibilities. It is also important to recognise and strengthen the connections between aid management and development planning in general. Aid coordination is not a discrete activity that can be compartmentalised and assigned to a single agency acting in isolation.

73. It needs also to be emphasised that aid management is a wider set of activities that cannot be handled exclusively by whichever agency is given prime responsibility for aid coordination. There need to be appropriate links between the Planning Ministry and other agencies and, of equal importance, between the aid coordination department and other departments of the Planning Ministry. The basic aims of aid management should be:

(a) To optimise external resource inflows, bearing in mind the capacity of Government and of the economy to service any debt involved.

(b) To optimise the allocation of these resource inflows, in support of Government's general development strategy.

(c) To ensure the effective utilisation of aid once it is allocated.

These basic aims are interconnected, since the volume of inflows is not independent of the uses to which they are put. Funds may be available for one purpose but not for another, the rate at which funds are disbursed will depend on the rate of implementation of the projects to which they are assigned, and so forth.

74. There is an "aid cycle" analogous to, and closely connected with, the "project cycle". Its main elements are:

- obtaining aid commitments in principle
- converting such commitments into substantive agreements
- determining the specific projects/programmes to which the aid is to be applied
- commencing the projects/programmes so that disbursement can begin
- carrying through and monitoring the implementation of projects so that disbursement is fully and rapidly achieved
- recording and meeting repayment obligations.

75. Effective aid management requires attention to all the elements of the aid cycle. Much of the dissatisfaction that arises about aid management concerns failures to move smoothly from one stage of the cycle to another - unconsummated commitments and slow disbursements being two typical complaints. Yet too often the debate about aid coordination has been conducted with implicit reference to responsibilities for only one or two elements of the cycle, notably the general seeking of aid and its allocation amongst alternative projects.

76. Aid agencies often bemoan the lack of an effective central aid coordinating body on the government side. This seems to relate mainly to two aspects:

- At the project level there is need for effective follow-up of problems that arise in the preparation and implementation of individual projects (and consequently in the flow of aid disbursements). The Ministry of Planning, as custodian of the development programme and coordinator of the Plan's preparation, is often the appropriate body to assume this role. (Note that this function requires coordination within government as much as with aid agencies.)

- At aggregate level the nature of aid has been changing. It is now less related to specific conditions attached independently to "their" projects by the various aid agencies and much more to a general appraisal of the country's macroeconomic management and development strategy as a whole. In this the aid agencies tend to follow World Bank and IMF leads, and the Consultative Group process epitomises this; it creates a need for forums in which the aid agencies can discuss matters of common concern with Government in the intervals between CG meetings, and this in turn requires that the Government be able to take the initiative in organising the necessary dialogue. (Again, such dialogue requires many participants on the Government side, but there must be a clearly identified agency within Government with the responsibility for organising Government's participation in the dialogue.)

77. Governments are often ambivalent about "aid coordination" meetings with aid agencies, since there is less than universal enthusiasm for the diminution of sovereignty that is implied in the engagement of aid agencies in "policy dialogue". It could be helpful to distinguish more clearly between meetings that are essentially technical and those concerned with policy (although the boundaries inevitably blur). In some cases government disinclination to create or maintain forums for "policy dialogue" has led to a failure to address technical and bureaucratic obstacles to aid utilisation that government and aid agencies alike have an unambiguous interest in tackling.

78. Standards of aid management are generally very low. Many (most?) SSA governments are too passive in this respect, leaving the initiative mainly with the aid agencies. Préparation of a realistic PIP is an important step towards better aid management since it restricts the freedom of manoeuvre of separate aid agencies in identifying and preparing projects that suit their preferences and brings into focus the question of which aid sources should be approached for which projects.[16] It needs to be emphasised that, while attempts at coordination amongst themselves by aid agencies may be helpful, they cannot substitute for effective aid management by the government itself.

---

[16] This is an aspect of aid management that is often very poorly handled. For example, each recipient has a fixed allocation of Lome Convention funds from the EEC. The strategy should be to draw down those funds as rapidly as possible, not, as often happens, to assign them to very long-term or inherently slow-moving projects.

Technical Assistance

79. Public expenditure management and reform is a very sensitive area in which to involve technical assistance. (Such sensitivity is reflected in some governments' preference for UNDP or bilateral assistance in this area rather than involve the World Bank.) General experience with technical assistance to strengthen planning performance and institutions has been disappointing. Short-term assistance has been effective in generating emergency documents, such as PIPs, but parlaying this into durable improvements in planning performance is more difficult.

80. As regards sensitivities:

(a) It is important to define the allegiance of TA personnel and consultants clearly. In most cases, irrespective of the funding source for the assistance, personnel should be unambiguously responsible to the government they are assisting. Personnel are bound to be less effective if they are regarded by the government as agents of an external agency.

(b) A similar point applies to the Bank's conduct of Public Expenditure Reviews. It is probably unworldly to regard these as joint government/Bank exercises, but they can be of great value in demonstrating the kind of analyses that ought ideally to be undertaken by governments themselves.

81. Past failure of technical assistance has been largely due to the unsatisfactory nature of the systems and institutions being assisted. It is important to focus first on the desired outcomes of the PBS and allow technical assistance requirements to be inferred from this. Too often it is assumed that the presence of expatriate personnel per se can achieve improvements.

82. Tensions may be caused by misperceptions of why technical assistance may be needed. Governments are more likely to accept TA if the task involved is seen as a highly technical one (say the computation of ERRs, for example). Often, the real value of TA may be in helping to re-establish relatively straightforward planning and organisational techniques of the kind discussed in this paper.

ANNEX A: DOCUMENTS REFERRED TO

This is a list of some of the published documents referred to in the course of preparing this paper.

Botswana 1985: National Development Plan 1985-91. Ministry of Finance and Development Planning, Republic of Botswana, December 1985.

Botswana 1986: Planning Officers' Manual. Ministry of Finance and Development Planning, Republic of Botswana, June 1986.

Commander 1987: Government Monitoring and Evaluation Systems in Africa-What are the Questions? Simon Commander, UNDP, New York, April 1987.

Howell 1985: Recurrent Costs and Agricultural Development. John Howell (ed), Overseas Development Institute, London, 1985.

Tanzania 1984: A Manual of the Budget Process in Tanzania. Ministry of Finance, Tanzania, 1984.

Tanzania, various years: Annual Plan.

Uganda 1982: Recovery Programme 1982-84. Ministry of Planning and Economic Development, Kampala, 1982.

Uganda 1983: Revised Recovery Programme 1982-84. Ministry of Planning and Economic Development, Kampala, 1983.

Uganda 1987: Rehabilitation and Development Plan 1987/88-1990/91. Ministry of Planning and Economic Development, Kampala, 1987.

World Bank 1984: Public Sector Management in Botswana - Lessons in Pragmatism. N Raphaeli, J Roumani, and A C MacKellar, World Bank Staff Working Papers, Number 709, World Bank, Washington, 1984.

Zambia 1984: Restructuring in the Midst of Crisis. GRZ/CG Report, Lusaka 1984 (2 Volumes).

Zambia 1985: An Action Programme for Economic Restructuring. Government of the Republic of Zambia, June 1985.

Zambia 1986: Economic Review and Annual Plan, 1986. National Commission for Development Planning, Lusaka.

PPR Working Paper Series

	Title	Author	Date	Contact
WPS14	The Optimal Currency Composition of External Debt	Stijn Claessens	June 1988	S. Bertelsmeier 33768
WPS15	Stimulating Agricultural Growth and Rural Development in Sub-Saharan Africa	Vijay S. Vyas Dennis Casley	June 1988	H. Vallanasco 37591
WPS16	Antidumping Laws and Developing Countries	Patrick Messerlin	June 1988	S. Torrijos 33709
WPS17	Economic Development and the Debt Crisis	Stanley Fischer	June 1988	C. Papik 33792
WPS18	China's Vocational and Technical Training	Harold Noah John Middleton	June 1988	W. Ketema 33651
WPS19	Cote d'Ivoire's Vocational and Technical Education	Christiaan Grootaert	June 1988	R. Vartanian 34678
WPS20	Imports and Growth in Africa	Ramon Lopez Vinod Thomas	June 1988	61679
WPS21	Effects of European VERs on Japanese Autos	Jaime de Melo Patrick Messerlin	June 1988	S. Fallon 61680
WPS22	Methodological Problems in Cross-Country Analyses of Economic Growth	Jean-Paul Azam Patrick Guillaumont Sylviane Guillaumont	June 1988	E. Zamora 33706
WPS23	Cost-Effective Integration of Immunization and Basic Health Services in Developing Countries: The Problem of Joint Costs	A. Mead Over, Jr.	July 1988	N. Jose 33688
WPS24	World Bank Investments in Vocational Education and Training	John Middleton Terri Demsky	July 1988	W. Ketema 33651

PPR Working Paper Series

	Title	Author	Date	Contact
WPS25	A Comparison of Alternative Training Modes for Youth in Israel: Results from Longitudinal Data	Adrian Ziderman	July 1988	W. Ketema 33651
WPS26	Changing Patterns in Vocational Education	John Middleton	July 1988	W. Ketema 33651
WPS27	Family Background and Student Achievement	Marlaine E. Lockheed Bruce Fuller Ronald Nyirongo	July 1988	R. Rinaldi 33278
WPS28	Temporary Windfalls and Compensation Arrangements	Bela Balassa	June 1988	N. Campbell 33769
WPS29	The Relative Effectiveness of Single-Sex and Coeducational Schools in Thailand	Emmanuel Jimenez Marlaine E. Lockheed	August 1988	T. Hawkins 33678
WPS30	The Adding Up Problem	Bela Balassa	July 1988	N. Campbell 33769
WPS31	Public Finance and Economic Development	Bela Balassa	August 1988	N. Campbell 33769
WPS32	Municipal Development Funds and Intermediaries	Kenneth Davey	July 1988	R. Blade-Charest 33754
WPS33	Fiscal Policy in Commodity-Exporting LDCs	John Cuddington	July 1988	R. Blade-Charest 33754
WPS34	Fiscal Issues in Macroeconomic Stabilization	Lance Taylor		
WPS35	Improving the Allocation and Management of Public Spending	Stephen Lister	August 1988	R. Blade-Charest 33754

Policy, Planning, and Research

WORKING PAPERS

World Development Report

Office of the Vice President
Development Economics
The World Bank
August 1988
WPS 36

Background Paper for the 1988 World Development Report

Social Security Finance in Developing Countries

Douglas J. Puffert

Social security systems in developing countries can provide a pool of investment capital to spur economic growth. But many systems now showing surpluses may become insolvent because of poor management.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

Social security systems usually cover less than 10 percent of the population of developing countries. Yet in a number of countries, these systems make up a large proportion of public sector revenues and expenditures.

Most social security systems in developing nations are running substantial surpluses. If the systems are to meet future obligations, reserve funds and surpluses should be invested in safe assets with real positive rates of return.

But many countries lack well-developed financial markets and good domestic opportunities for productive investment. The government usually controls social security systems — and often uses the surpluses to finance government deficits.

Economists are divided over how social security systems affect private saving and capital accumulation, which leads to long-term growth. They also disagree on the inefficiencies which social security systems introduce into labor markets.

It is clear, however, that investing social security funds in government securities increases the risk of the social security system's insolvency.

Governments facing fiscal difficulties find it tempting to expand the money supply and drive up inflation. This cuts government obligations to social security reserve funds by reducing the real value of the investments in government bonds.

There is also constant pressure for many governments to increase benefits without increasing contributions. Although such action is expedient, it often proves unsustainable. A government's ability to resist such pressure thus has a direct bearing on the long-term success of the system.

One system that stands out as sound, with wisely invested reserves, is the regulated private social security system in Chile.

This is a background paper for the 1988 World Development Report. Copies are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rhoda Blade-Charest, room S13-060, extension 33754.

Social Security Finance in Developing Countries

by
Douglas J. Puffert

1. Introduction..... 1
   Origin and Spread of Social Security..... 3
   Types of Benefits..... 4
   Principles of Benefits and Finance..... 4
   Reserve Funds, Generosity of Benefits, and Long-run Financial Solvency..... 7

2. Benefits and Finance in a Sample of Countries..... 9
   Types, Principles, and Level of Benefits..... 9
   Extent of Coverage in the Population..... 12
   The Financial Size of Social Security Systems..... 14
   Sources of Revenue for Social Security Systems..... 16
   Relative Size of Benefit Programs..... 17

3. The Consequence of Social Security Systems for Public-Sector Finance..... 19

4. The Consequences of Social Security Systems for Economic Growth..... 24

5. Conclusions..... 28

Notes..... 30
References..... 36
Appendix..... 38

1. Introduction

Most developing countries have social security systems - publicly administered sets of programs which provide for people in the event of loss of income (due to retirement, disability, death of a breadwinner, illness, maternity, work-related injury, or unemployment) and often in the event of need for medical care or the expense of raising children. Usually - but not always - the programs are not as extensive as programs in industrial countries. They usually cover only a small part of the population (often well under ten percent) and benefits are typically less generous than those in the industrial countries.

Still, social security systems make up a large proportion of public sector revenues and expenditures in a number of developing countries. This fact may be hidden, for in most countries, systems are managed by autonomous public bodies whose financial flows are only partially reported in central government statistics. Social security systems have major implications for public finance for two further reasons. First, systems in most developing countries have growing reserve funds which finance much of their governments' deficits and also, sometimes, provide a pool of investment capital which furthers economic development. Second, social security systems pose special financial dangers for central governments. Unless systems are managed effectively with a view to covering future liabilities, they can become insolvent. Already a number of systems have come to

require major allocations of central-government revenues.

This paper presents a survey of the financial nature of social security systems in developing countries and their implications for public-sector finance as a whole and for the process of economic development. It gives only brief consideration to the needs which give rise to social security systems and the adequacy of various countries' systems for meeting these needs, [1] It also passes over various issues in the administration of social security: for example, the great multiplicity of programs and occasional failure to collect taxes, keep proper records, or distribute earned benefits in some Latin American countries (Mesa-Lago, 1986).

The remainder of this chapter will discuss what social security is and in what various ways it is implemented in developing countries. Chapter 2 will consider in more detail the specific provisions and financing of social security programs in a sample of 41 developing countries. Chapter 3 will discuss the implications, including potential dangers, of social security systems for public-sector finance generally, and Chapter 4 will consider the effects of social security systems on capital and labor markets, and thus on the process of economic development. A final chapter will sum up the implications of this analysis for public policy in developing countries and for the research agenda of the World Bank.

Origin and Spread of Social Security

The need for social security is often seen to arise in the transition from a traditional social and economic order to a modern urban society and industrial economy. The loosening of family, kinship, and community ties and the rise of wage labor add new elements to the age-old problem of providing for those who lack an income or have medical needs. Central governments have assumed responsibility for making this provision. [2]

To be sure, government has long (if not generally) been involved in providing for the poor. Modern social security, however, dates from the late nineteenth century when Germany and Denmark instituted public pension schemes for the greater part of their working populations. As Table 1.1 suggests, most European countries, as well as some of the more industrialized countries of North and South America, adopted pension schemes and other social security programs in the early decades of this century. Most remaining countries (and most colonial administrations) instituted various programs in the twenty years following the Second World War. Most of the world's smaller countries (i.e., those with populations below one million), however, have adopted such programs only since 1965.

We note in Table 1.2 that countries with higher incomes now, which for the most part have had substantial modern economic sectors for a longer time, tend to have adopted social security programs earlier. Still, as of 1985 at least 24 out of 37 low-income economies have programs which at least cover work-

related injury and provide pensions for those retired due to age or disability and, usually, for dependent survivors.

Types of Benefits

Tables 1.1 and 1.2 also show the typical progressive institution of programs for different types of benefits. Usually, work-injury benefits (earnings replacement and medical expense) are the first provision to be instituted. [3] After pensions for old age, disability, and death of a family's bread-winner, the most common benefits are replacement of earnings (cash benefits) in the event of sickness and maternity, and medical care (provided directly) or else (rarely) hospitalization insurance. [4] Family allowances - benefits for raising children - are quite common in the industrial countries, middle-income European countries, countries in Africa which have a French colonial heritage, and much of South (but not Central) America. Partial replacement of earnings during periods of involuntary unemployment is universal in the industrial market countries but not common in developing countries.

Principles of Benefits and Finance

Social security programs are intended to provide adequately for their beneficiaries, whether this adequacy is viewed as partial replacement of previous earnings or as providing a minimum or standard level of benefit to all. Usually a pragmatic balance is reached between a concept of social equity, which involves

redistribution from those better off to those worse off, [5] and individual equity, which involves providing people with benefits equal in (expected, discounted) value to their contributions or taxes. In nearly all cases both workers and their employers are deemed responsible to contribute to the funding of social security benefits through taxes on wage or salary earnings. Additional funding may come from general state revenues or ear-marked taxes.

Five alternative principles are commonly employed for determining levels of social security benefits and financing them. The panels in Table 2 show the application of these principles in countries with different levels of income per capita.

The principle most often applies is that of social insurance. Social insurance schemes are funded principally by the earnings-related contributions of workers and/or their employers. [6] Earnings-replacing benefits under social insurance vary positively with a covered worker's earnings.

Universal benefits are of uniform amount and apply to all residents who experience a given contingency. Some pension schemes (chiefly in the industrial countries) combine a uniform benefit with an earnings-related component. Medical care, hospitalization insurance, and family allowances are generally provided on a universal basis; Table 2 (and Table 3 below) reports these benefits as "social insurance," however, in cases where such schemes are financed from employer and worker contributions.

A third principle, social assistance or means-testing, directs benefits specifically to those in greatest apparent need. It is applied either alone or in conjunction with other principles, but it is now rarely used.

Employer liability, which is often applied in conjunction with mandatory private insurance, is used by some countries to accomplish the goals of social security without involving the public sector in its provision. Table 2 gives counts for these programs but does not include them in totals for social security programs. [7]

Finally, provident funds collect contributions from workers and employers into personal accounts from which workers (or their survivors) can draw in the events of old age, disability, death, and in some cases other contingencies. Benefits are paid as lump sums in the amount of accumulated contributions plus interest. They are, effectively, forced savings schemes. Some provident funds originated as regulated private schemes in British colonies which were nationalized and expanded after independence. Others were instituted as public schemes from the outset. In a few cases provident funds have been converted into social insurance schemes. Provident funds are sometimes favored for their administative simplicity and for their accumulation of sizeable reserves which may be applied to capital accumulation or the funding of government debt.

Reserve funds, generosity of benefits, and long-run financial solvency

Provident funds, by definition, maintain reserve funds equal in value to their liabilities for future benefit payments, and they return to their participants an amount equal in expected present value to their (and their employers') contributions. Early social-insurance pension schemes, both in Europe and in Latin America, also had these characteristics; thus they operated on the same principles as the private insurance which had often previously been offered by mutual-aid societies and similar institutions - except that coverage was made mandatory and extended to larger groups of workers.

Naturally, it was realized that by drawing down the reserve funds benefits can, for a time, be raised above levels that simply provide a fair return on contributions. Thus all the early social insurance pension schemes moved towards the principle of "pay-as-you-go" financing, under which current contributions pay for current benefits. [8 9] Some of these systems, both in Europe and in Latin America, have required special ear-marked taxes or special allocations from general revenues to remain solvent.

The younger social-security pension schemes in developing countries have had much less in the way of previous private systems to build upon. For the most part they never intended to maintain full-funding - today only Kuwait's scheme, Chile's new privatized system, and the various provident funds are fully-

funded - but they do operate on the basis of partial-reserve financing, with a view to assuring solvency over a horizon of a few decades into the future. Many of them, in fact, are accumulating substantial surpluses (sometimes over half their revenues) into reserve funds. This accumulation is largely for the reason that the pension schemes have not yet "matured" - they do not yet have a full complement of pensioners eligible for full benefits.

Chapter 3 considers at greater length the financial difficulties of some Latin American schemes and the prospects for the continued financial solvency of the younger schemes in developing countries.

2. Benefits and Finance in a Sample of Countries

We now turn from these general considerations to an examination of the structure of social security in a sample of 41 developing countries drawn from every major region of the world. Our sample also considers three industrial market countries (not especially typical) in order to enable some comparison with them.

Types, Principles, and Level of Benefits

Table 3 presents the range of benefits provided by the social security systems in our sample, the principles by which these benefits are financed, and a partial account of how retirement pensions are determined. Within each regional section countries are ordered from the lowest per-capita income to the highest. As in Tables 1 and 2 above, we note that the fullest range of benefits are provided in Latin America and in Europe, the Middle East, and North Africa. Social insurance is the most common principle of provision, provident funds are common in Sub-saharan Africa and Asia (nearly always in former British colonies), and employer liability is occasionally invoked (especially in Africa) for cash sickness and maternity benefits, some medical care, unemployment (severance) benefits, and most often for work-injury insurance. China, notably, charges its collectives and other employers with responsibility for the full range of benefits provided [1] (Wallich 1986). Several countries have programs which operate under a combination of principles,

adding social assistance, universal benefits, or employer liability to social insurance or provident funds.

Since 1981 Chile has largely privatized its social security system. Previously the country (like many Latin American nations still) had a number of social insurance systems covering different sets of workers. Those systems (now partially unified) are still in effect for retirees and the 40 percent of the active labor force who have not switched to the new system. Several private commpanies have been organized to operate under state supervision, providing pensions, on a fully-funded basis, as well as cash sickness and maternity benefits and medical insurance (Lacey 1987).

Under the heading "medical care" we note, by the letter "M", countries in which a public medical system operates separately from the social security system. Possibly not all such systems are noted, however.

Another substantial omission is that of the common, but non-legislated, provision of private pensions and private insurance, often through employers, in several countries. This practice is much more common, however, in the industrial market countries - most notably in the United States.

The last three columns of Table 3 present a very summary account of who is eligible for old-age pensions and how substantial are the benefits provided. The normal retirement age is the age at which covered workers (sometimes with exceptions for miners, other occupations, or the unemployed) are eligible for

full benefits. In many cases reduced benefits are available at a lower age, and sometimes higher benefits are given to those who delay retirement until after the normal age. We see in the table that normal retirement ages are 60 to 65 for men, and usually lower for women, in most of the industrial market countries, Latin America, and Europe, the Middle East, and North Africa. In Sub-saharan Africa and Asia, which for the most part have lower life expectancies, normal retirement ages are usually 55 or 60 for men and sometimes lower for women. Most provident funds permit withdrawal from one's account at age 55, often without any requirement for actual retirement. Under social insurance programs rules for actual retirement vary widely.

Levels of benefits nearly always depend on both the number of years of contributions and the level on one's earnings (or of one's contributions) over either the last several years of one's working life or else all of one's covered working life. The rules which govern benefits are often quite complex, so that the figures in the last two columns of Table 3 are hardly complete in the information they convey. In most cases the specified number of years of required contributions makes one eligible for the minimum specified earnings replacement rate, while additional years of contributions makes one eligible for a higher replacement rate. Sometimes, however, higher replacement rates are for those with lower average earnings (i.e., the benefit formula is progressive). Often the legislated formulae for levels of benefits do not specify a replacement rate. In these cases a "C"

in the table indicates that benefits vary with total contributions or covered earnings. "B" in this column designates that there is a "base" level of benefits to which are added benefits which vary with contributions or earnings. Provident funds, indicated by "P", pay a lump-sum benefit in the amount of accumulated contributions plus interest.

We see that, for the most part, pension benefits replace between one third and four fifths of one's pre-retirement earnings - with benefits closer to the higher figure for long periods of coverage. There is little general difference in replacement rates among regions, or for that matter between countries of different income levels within a region.

Extent of Coverage in the Population

In most of the developing world social security applies mainly to urban wage labor - usually a small part of the population. Only in the middle-income countries of Europe, in several countries in Latin America, and in a few other countries such as Israel, Mauritius, and Singapore is the majority of the labor force and population covered. In most other countries it seems likely, based on categories of covered workers, that less than ten percent of the population is covered. As Mesa-Lago (1986) notes for the Latin American countries, "In general the extension of risk coverage has been much faster than that of population coverage.... [O]ften a minority of the population is covered against all risks, but the majority is not protected against any

risks at all." [2]

Table 4 presents the results of Mesa-Lago's (1986) study of social security coverage in Latin America. [3] For the most part extent of coverage varies directly with per-capita income, although the countries of northern South America and Central America have lower coverage than countries of comparable income further south. Several higher-income countries provide more extensive coverage for sickness and maternity benefits than for pensions. Among the lower-income countries sickness and maternity benefits are available less widely than pensions.

Unfortunately there are (apparently) no comparable studies for other developing countries. Brief, sometimes imprecise descriptions of the covered population are, however, provided in the United States Social Security Administration's biennial report Social Security Programs Throughout the World. These descriptions make it clear that there are substantial restrictions even on the extent of coverage of urban wage labor in (among our sample of developing countries) Ghana, Nigeria, India, Pakistan, Indonesia, Thailand, Korea, and Singapore. [4] In these cases only larger employers or a limited range of industries are covered. In many other of our sample countries, social security does not apply to domestic workers or casual workers. Family workers - usually a substantial portion of urban (as well as rural) workers - are seldom covered. The urban self-employed are covered in Egypt, Cyprus, Israel, Portugal, and Yugoslavia; they are also covered voluntarily or in a limited range of occupations

in Mauritius, Hungary, China, Indonesia, the Philippines, and Singapore. It is often not clear in these descriptions to what extent rural employees or the rural self-employed are covered. There is certainly coverage for at least some rural workers in Zambia, Cameroon, Morocco, Israel, Hungary, Portugal, Yugoslavia, Sri Lanka, and China. [5]

Mesa-Lago (1986) points out that in Latin America, "coverage tends to be positively correlated with income, the degree of skill at work and the power of pressure groups." Similarly, in the rest of the developing world it is the urban elites who receive the most protection under social security while needier groups are not covered. [6] This becomes a matter of particular concern to the extent that social security is paid for out of general revenues or will later become a burden upon the central government. In these cases - arguably rare outside of Latin America - socal security systems may constitute a mechanism for a perverse redistribution from the worse- to the better-off.

The financial size of social security systems

While it is difficult to determine the extent of social security coverage in the population, information on financial flows is accessible for most countries. Tables 5 through 8 present information collected by the International Labour Office for its triennial survey, Cost of Social Security. [7] Table 5, in particular, presents the size of social security finances relative to the economy as a whole as measured by Gross Domestic

Product. [8]

The table presents information not only on social security programs for the public as a whole but also on programs which apply only to public employees and programs apart form social security which provide public health care and public (or social) assistance. These programs fall under the International Labour Office's definition of social security programs, and they may be categorized as social security in government financial statistics, but they are not considered in the present paper apart from this table. [9] We note that systems for public employees are sometimes larger than broader social security programs. Where no flows are reported for public-employee systems, it is either the case that public employees are covered only under the general system or that the finances for such systems are not reported to the I.L.O.

As we focus on the first four columns of Table 5 we see that social security systems involve the largest share of an economy's product in Chile, [10] the higher-income European and Middle-Eastern countries, Singapore, and the industrial market countries. Social security involves a very small portion of the economy - less than 0.2 percent - in Nigeria, Bangladesh, Burma, Pakistan, Indonesia, and Thailand. Other figures for receipts and expenditures vary widely, with some tendency for richer countries to distribute a larger portion of their product through the social security system.

We also see in Table 5 that only three countries in our

sample - Peru, Mexico, and Portugal - have deficits, of about seven percent, four percent, and one percent of revenue respectively. A substantial number of countries, especially in Asia and Sub-saharan Africa, have high surpluses - often more than 50 percent of revenues. [11]

Sources of Revenue for Social Security Systems

Table 7 presents information on sources of revenue for social security systems. In the first two columns it lists the statutory contribution rates which are applied to workers' wage and salary earnings (or, from employers' point of view, to payroll). The remaining columns present the percentage of total revenues supplied by contributions, special taxes and general state revenues, income from investment of reserve funds, and miscellaneous sources.

In nearly half of the countries sampled, contribution rates for insured workers and their employers total between 10 and 20 percent. Most of the remaining countries have contribution rates between 20 and 30 percent. Argentina and Portugal have combined rates well in excess of 30 percent, while Singapore's rate is 50 percent - 25 percent each from insured workers and employers. [12] The lowest contribution rates, well below 10 percent, are found in Burma, Thailand, and the Republic of Korea, the only countries listed which do not have pension coverage.

Except in Chile and Yugoslavia employers are charged (taxed) a higher contribution rate than workers. [13] In part this is

because the portions of the contribution which finance work-injury insurance and family allowances are nearly always charged entirely to the employer.

Special taxes and general revenues constitute no more than a small part of revenues in most developing countries, while their reserve funds provide a substantial investment income (at least in the nominal, i.e. non-inflation-adjusted, terms reported).[14] In industrial market countries, by contrast, the state often supplies a substantial part of revenues while reserve funds are too small to provide much revenue. State participation in Chile has become particularly high in the past several years in order to provide benefits for current beneficiaries while the youngest cohorts' contributions are directed into the private system.[15]

Relative size of benefit programs

Programs for old age, disability, and survivors' pensions receive the largest portion of revenue in most countries' social security systems but, due to the immaturity of most such programs in developing countries, they expend a somewhat smaller share of benefits than they receive as a share of revenues. The surpluses we examined above are almost solely for the purpose of providing for future increases in pension expenditures. Thus the relative shares of benefits which we now examine in Table 8 give an incomplete picture of the relative importance of different types of benefits.

Even so, the tables show that a number of countries - Peru,

Colombia, Mexico, Bangladesh, Burma, and Pakistan - place greater weight on sickness and maternity insurance and on medical care than on pensions. These benefits are also relatively high throughout Latin America, in Europe (including Turkey), and in Israel, but they are low or zero in Sub-saharan Africa and much of East Asia. Family allowances make up large proportions of benefits in the African countries once colonized by France (the proportions are as high as they are, obviously, due to the immaturity of pension programs in these countries) and are also offered, as we noted above, in Europe and parts of South America. Work-injury coverage looms large in the finances of the Cote d'Ivoire, Cameroon, Indonesia (where coverage for work injury is much broader than that for the provident fund), and Thailand (where work-injury insurance is the only coverage provided). Countries with provident funds usually provide little in benefits for contingencies other than old age, disability, and death.

3. The Consequences of Social Security Systems for Public-Sector Finance

The institution of a social security system - and particularly of a pension scheme - obligates a government to pay increasing levels of benefits as the scheme matures (that is, as successive cohorts of new beneficiaries have been covered longer and are eligible for increased benefits) and as life expectancy improves. This growing financial obligation can prove quite burdensome to a government under some financial arrangements for social security systems.

We have seen that most social security systems in developing countries are not yet mature, are running substantial surpluses, and are financed without resort to substantial sums in special taxes or general state revenues. Some, indeed, reap substantial revenues from investment of their surpluses.

Usually these systems are managed by decentralized public agencies, and their surpluses are usually kept nominally separate from funds of the central government. The surpluses, however, are often used to purchase the central government's debt - that is, to finance its deficits. This raises a question, at least, as to how real are the reserve funds of social security systems, or how independent are these systems from the central government and its policies.

A government which grows accustomed to using the substantial surpluses of a social security system to finance its deficits may have sufficient difficulty funding its operations once the social

security system matures and ceases to run surpluses that it will not be able to redeem the bonds held in the social security reserve fund. A more subtle, and more common, means by which a government escapes its obligation to its social security reserve fund is through high inflation, which erodes the value of nominally fixed assets such as government bonds. High inflation has periodically eroded the reserve funds of Latin American systems.

Administrators of social security systems are not always required to invest their assets in government bonds. High inflation can still greatly reduce the value of reserve funds eld in private assets - as it did in Turkey in the late 1970's and early 1980's. Moreover, due to a lack of developed local financial markets, however, (and in a desire to invest domestically rather than abroad) they may lack good opportunities for investment. Thus it is the considered opinion of staff workers in social security at the International Labour Office that while most social security systems of Africa, Asia, and the Caribbean are actuarially sound, they may yet experience financial difficulties due to the lack of good investment opportunities. [1]

The actuarial soundness of social security finance can be altered ty a variety of demographic, economic, and political factors. An unexpected rise in life expectancy, decline in the birth rate, or increase in emigration raises the "dependency ratio" - the number of pension beneficiaries per contributing

worker - and thus worsens the financial picture. Economic growth increases the base upon which contributions are paid, and thus increases revenues, while prolonged stagnation reduces financial surpluses. Political pressures may lead to benefit increases which, though temporarily expedient, are unsustainable in the long run without increased revenues. It is difficult, politically, later to reduce benefits. If it is also politically difficult or economically harmful to raise contribution rates, special taxes or general revenues must be resorted to in order to pay for benefits.

Mesa-Lago (1986, pp. 143-4) confirms this analysis in his list of factors which threaten the financial stability of "the oldest and most highly developed systems" in Latin America. In addition to normal and foreseeable factors such as those relating to the maturation of systems, he mentions "quite liberal legislation on benefits,...an increasing number of pensioners who are living longer than was expected both in the original legislation and in older actuarial estimates, thus receiving their pensions and health benefits for longer periods" and the facts that "the contribution burden of social security is excessive and it is very difficult, politically and economically, to increase either social security contributions or taxes" and that "the yield on pension funds has turned out to be very low, and even negative in the high-inflation countries...." He also adds some factors other than those in the analysis above:

> [T]here is a high level of evasion and delay, particularly in the countries which have high and sustained inflation (where delaying payment means a reduction in one's real contribution);...the State - under pressure to meet multiple and demanding requirements - fails to comply with its financial obligations, thus leading to the accumulation of very large debts;...and...the transfers (or "loans") from the pension funds to cover the deficits of health programmes [the cost of which have escalated due to "a capital-intensive system of remedial medicine"] are difficult to reimburse in practice, which has contributed to the de-capitalisation of the funds, at a time it is necessary to use the accumulated technical reserves to meet the current pension payments.

Two additional factors which have had a notable effect on the financial solvency of social security in Uruguay are low retirement age (60 for men, 55 for women - but retirement at substantially younger ages for unemployed persons was permitted, and often accepted, until 1981), high life expectancy (72 at birth [2] but of course higher for those who survive until retirement age), and a high rate of emigration among the young. Together, these factors lead to a very high dependency ratio of .82 pensioners per contributor in 1983 (Mesa-Lago, 1985, cited in World Bank, 1986, pp. 80) and contributed to a deficit fully 60 percent as great as revenues in 1980 (Mesa-Lago 1986), requiring a subsidy from the central government of over four percent of GDP in 1983 (World Bank, 1986, p. 83). [3] [4]

It was partly Chile's experience with the need to use general revenues to maintain the solvency of its social security system that led it to institute its privatized system. A noteworthy feature of this system is that it maintains its actuarial soundness through full funding and the limitation

(apart from a state-guaranteed minimum benefit linked to the minimum wage) of the expected value of one's benefits to one's contributions plus interest. The state is thus protected in the long run from any need to maintain the solvency of the system, although now in the absence of the contributions of those who switched to the privatized system it must make substantial contributions to pay benefits for current retirees. Thus far the average real rate of return on fund investments has been an astounding 16.8 percent and fund investments have risen to 50 percent of total term deposits in the financial system (Lacey 1987).

The financial difficulties of the older Latin American schemes may or may not be repeated in the younger schemes in Latin America or in the rest of the developing world. Whether it is depends on the abilities of governments to withstand political pressures either to raise benefits (and thus give substantial transfers to current beneficiaries and those soon to retire) without providing for their financing or else to maintain contribution rates or relatively low retirement ages in the face of the need to raise one or the other due to increasing life expectancy (see Mesa-Lago (1986), pp. 145-6). It also depends, as we have seen, on the ability of social security administrators to place their reserve funds in safe assets with a positive real rate of return.

4. The Consequences of Social Security Systems for Economic Growth

Due to the magnitudes of their financial flows, social security systems can have substantial impacts on the economy through both the capital market and the labor market. The nature and degree of some of these impacts are matters of significant dispute among economists. While studies have focused primarily on the industrial market countries, their insights or assertions can be applied to developing countries as well.

The impact of social security systems on capital market comprises both the direct effect arising through the accumulation of reserves and the behavioral response of covered individuals to the prospect of their future pension benefits. Reserves may be invested (domestically) either in government bonds or (either directly or through financial instruments) in capital goods. The effect of investment in government bonds may be either to enable increased government spending, to reduce taxes, to reduce foreign borrowing, or to free other savings for capital investment.

Unfortunately information is not readily available concerning how, or to what extent, reserves are used to finance capital accumulation. One very interesting use for which information is available is the use of Singapore's provident fund to finance housing (Wallich 1987). Not only are public housing projects financed this way, but individuals may borrow against their accounts to purchase homes. The provident fund holds mortgages and receives regular payments on these loans; any balances

outstanding when covered workers receive their lump-sum benefits are deducted from these benefits. Nearly half the participants in provident funds have used them to finance purchases of homes.

People's behavioral response to their prospective pension benefits, or "social security wealth," is a matter of substantial dispute. The basic issue is this: to what extent do people reduce private saving because their expected pensions replace that which they need to save? If the reduction is of a substantial magnitude, as argued by Feldstein (1974, 1982), then, unless reserves are used to replace these savings in the generation of capital, a social security system will reduce a nation's total savings and capital stock. Barro (1974) has argued, to the contrary, that private inter-generational transfers offset the effects of public transfers even in a pay-as-you-go system, so that saving is unaffected. For a more extensive survey of the theoretical issues and empirical evidence see Wallich (1983), Shome and Squire (1983), or Munnell (1986).

A further argument is sometimes made about savings and capital accumulation in developing countries in particular. Many people in these countries have no prior experience with financial institutions. Social security programs give them such experience and therefore, it is said, encourage a "habit of saving." Thus they stimulate financial savings in addition to those generated through the programs' reserves.

Social security systems affect the labor market both by inducing earlier retirement and by introducing distortionary

marginal taxes on wage payments. The first effect is important and undisputed.[1] The second effect hinges on two disputed questions: (1) what is the incidence of the payroll taxes, or contributions, of both insured workers and employers, and (2) does an insured worker view contributions as a tax or as deferred compensation. The answers to these questions determine the extent to which contributions function as taxes which raise employers' cost of labor above workers' wages, bringing inefficiencies[2] to the labor market while tending to reduce employment.[3]

Many economists hold, on the bases of a marginal-product theory of wage determination, that employers' contributions are effectively paid by workers. The International Labour Office (1984) argues virtually the opposite: that workers are able to bargain for wage increases to offset increases in their contributions. Some economists argue that part of the incidence of the tax is passes on in the price of products. See Brittain (1972) for an evaluation of these and related arguments.

Whether a worker views contributions (including those of the employer) as a tax or as deferred compensation depends on large part on the perceived marginal linkage between these contributions and expected benefits. Under a provident fund or a system, like the new privatized pension scheme in Chile, which operate on the basis of private insurance principles, expected benefits rise on a one-to-one basis with contributions, provided that one's credited rate of return matches one's personal discount rate.[4]

In many systems benefits are provided on a progressive basis, so that while one's total expected benefits may exceed one's contributions, the marginal linkage is often less than unity and workers can rightly view part of their contribution as a tax. Some countries use only the several last or highest-earnings years to determine the level of one's benefits; in such cases most of one's contributions have no marginal linkage to benefits. Of course, covered individuals may not be able to evaluate the implications of the more complicated formulae used to determine benefits. Still, they do develop attitudes about whether they will get a sufficient return for the contributions they make, and these attitudes affect their choices in the labor market.

5. Conclusion

In view of the substantial consequences of social security systems for the integrity of government finance, for economic efficiency and growth, and for equity, what guidelines should govern the structure and operation of such systems?

First, systems must be managed in a way that assures their long-term financial viability. Benefits must be limited to what is sustainable from revenues over a horizon of several decades. Systems must be made effectively -- not just formally -- autonomous from the central government, and they must be given both the right and the accountable responsibility to invest trust funds in a range of effective investments. If they are required to purchase government bonds (for a limited portion of their portfolios only), these bonds must be credibly indexed for inflation.

Second, it is highly important both that there be an explicit linkage between one's contributions and one's benefits and also that one's benefits be based on one's entire stream of contributions. This will not only enable households to plan their futures with some confidence, but will also increase efficiency in labor markets (and in other markets affected by labor markets). To these same ends it is important as well that participants be able to have confidence in the adequacy of record-keeping, in the prompt payment of earned benefits, and in the continuing financial viability of the system.

Third, reserve funds for pension programs should be used for the formation of capital. While it is unclear whether the existence of such programs reduces private saving for investment, public programs can further a country's development if invested well. This may prove difficult, however, in some countries.

Fourth, systems must be equitable. Care must be taken in this especially where it is impossible to extend effective coverage beyond an already privileged segment of the population. Privileged classes should not receive benefits greatly exceeding their contributions. Systems should be financed only from the

contributions of those who will benefit -- not from general revenues (except, perhaps, for benefits which are universal). Because the burden of payroll taxes may be born partly by consumers who do not benefit from the system, the scale of the system should be kept relatively limited.

All of these considerations commend systems that are relatively straightforward in structure, simple to administer, and based on sound actuarial principles. Among such systems are the various provident funds and the regulated privatized system of Chile. These particular models need not be taken as normative, but system structures which depart far from the guidelines here can easily give rise to financial pitfalls, slower growth, or harm to many residents of countries that adopt them.

Notes to Chapter 1

1. For information on these matters the reader is directed to various publications of the International Labour Office, particularly Introduction to Social Security (third edition, 1984).

2.In developing countries particularly, financial markets are usually insufficiently developed to offer on a private basis the insurance and annuity coverage of social security systems.

3. This is usually done initially through provisions in the labor code which make employers liable to furnish or arrange private insurance for such benefits. Statistics are not readily available to indicate when public administration of such benefits began in various countries. Hence, Tables 1.1 and 1.2 count employer-liability programs for work-injury coverage, although they do not count employer-liability programs for other types of benefits.

4. In this chapter's tables, the figures for medical care include only those countries in which such care is provided through the social security system. Countries which provide free or low-cost medical care under other administrative arrangements are not counted here, although some of them are tallied below in Table 3.

5. In actual operation a social security system may perversely give a positive transfer to some who are well off. This is documented for the United States' Old Age and Survivors Insurance in Boskin, Kotlikoff, Puffert, and Shoven (1987).

6. Government may contribute also, out of general revenues or through ear-marked taxes.

7. See note 3 above concerning the inclusion of employer-liability work-injury programs in Table 1.

8. For an analysis of how this possibility became politically-expedient policy in Latin America see Mesa-Lago (1986), p. 143. Also, in several cases pay-as-you-go financing has resulted from the loss of reserve funds, either through their effective confiscation for other governmental expenditures or through high inflation and financial crisis. The latter happened, notably, to the original social-insurance pension scheme, that of Germany, in Germany's hyper-inflation of 1923 and in the financial crisis which, in the Federal Republic of Germany, followed World War II. The related experience of Latin American and other developing countries is discussed below in chapter 3.

9. If population and real wages grow fast enough, benefits can be raised above the value of contributions indefinitely without the maintainance of any reserve fund. If growth is slower,

beneficiaries (apart from the initial generation, which receives a windfall) receive less than the value of their contributions. These conditions are discussed by Wallich (1983) and Samuelson (1958). In fact, due to recent declines in both fertility and economic growth, younger generations in many countries can expect to receive less than a fair-insurance return on their (and their employers') contributions. This has been most extensively documented for the United States (see Boskin, Kotlikoff, Puffert, and Shoven (1987)) but is evident for most industrial countries and at least some middle-income countries. Apparently there has been little research on this matter for developing countries generally.

Notes to Chapter 2

1. These benefits are funded on a pay-as-you-go basis, which will prove particularly burdensome for collectives with an older than average work force.

2. Outside Latin America, we may note in several tables, few developing countries have protection against all risks.

3. See Mesa-Lago's study for a discussion of the inherent defects in making these sorts of estimates.

4. Still, 80 percent of Singapore's labor force is covered (Asher 1985).

5. These descriptions could be used together with data on the proportion of the labor force in various sectors of the economy to develop very rough estimates of the extent of coverage in the population. Alternatively, imprecise estimates could be derived from legislated contribution rates together with data on revenues of social security systems. Of more direct relevance for the present study, however, is the information presented below on the size of social security receipts, expenditures, and surpluses relative to the economy as a whole.

6. It is usually much easier to provide coverage to urban wage laborers than to others.

7. The most recent edition, the Twelfth International Inquiry, is forthcoming in 1988. The data as we have them are provisional. As of the writing of the present version of the present paper information is lacking for several countries in our sample. Space is left in Tables 5 through 8 to accomodate this information if and when it becomes available. Note that these tables delete those countries in Table 3 which have no public social security system.

8. It would also be worthwhile to view these financial flows as proportions of public-sector financial flows as a whole. This exercise awaits the development of the latter figures by the staff of the World Development Report - 1988.

9. Another category of benefits reported by the I.L.O. is that of benefits to war victims. In the present sample only Israel, Japan, Sweden, and the United States provide such benefits.

10. [Argentina and Uruguay should be added to this list if data becomes available for a later draft.]

11. [Here insert data on surpluses in Egypt if it becomes available from the I.L.O.]

12. Singapore's combined contribution rate is 40 percent of the employer's wage bill - for the wage bill including the employer's contribution is 125 percent of nominal wages.

13. But see the discussion in chapter 3 of the incidence of this tax.

14. See Chapter 3 concerning the real erosion of reserve funds due to inflation. Such erosion would not be reported in the figures here.

15. There is little explicit information to account for the other non-zero figures in the last three columns. One suspects that the high figure for "other" revenue for Indonesia largely reflects investment income, which is not reported as such.

Notes to Chapter 3

1. This point was made in a telephone conversation with an analyst at the I.L.O. The I.L.O. has worked with many of these systems to establish their actuarial soundness.

2. Source: World Development Indicators - 1987.

3. Uruguay is now undertaking a substantial reform of its social security system, with some assistance from the World Bank.

4. [Substitute information from I.L.O. to avoid citing unavailable source and to use 1983 as a common year.]

Notes to Chapter 4

1. The prospect of earlier retirement tends to raise rates of saving, tending to offset the reduction in saving which social security otherwise induces. See Munnell (1986).

2. These inefficiencies, or "dead-weight losses," vary roughly with the square of the total tax rate (including the rate for other income taxes) applied to payroll or to wage income.

3. The impact of payroll tax rates on the cost of labor as a factor of production, affecting the labor-intensity of production, has been of particular concern in the European market economies. In an effort to reduce unemployment, several of these countries have reduced the role of contributions based on labor earnings in financing social security.

4. The expected value of benefits is actually even greater when one considers the insurance value of "contingent assets" for risk-averse individuals.

References

Ahmed, Sadiq. 1984. "Public Finance in Egypt: Its Structure and Trends." Washington: Staff Working Papers No. 639, World Bank.

Asher, Mukul G. 1985. "Forced Saving to Finance Merit Goods: An Economic Analysis of the Central Provident Fund Scheme of Singapore." Canberra, Australia: Occasional paper no. 36, Centre for Research on Federal Financial Relations, Australian National University.

Barro, Robert. 1974. "Are Government Bonds Net Wealth?" Journal of Political Economy 82,6:1095-1117.

Boskin, Michael J., Laurence J. Kotlikoff, Douglas J. Puffert, and John B. Shoven. 1987. "Social Security: A Financial Appraisal Across and Within Generations," National Tax Journal 40,1:19-34.

Brittain, John A. 1972. The Payroll Tax for Social Security. Washington: Brookings Institution.

Feldstein, Martin. 1974. "Social Security, Induced Retirement, and Aggregate Capital Formation." Journal of Political Economy 82,5:905-26.

Feldstein, Martin. 1982. "Social Security and Private Saving: Reply." Journal of Political Economy 90,3:630-42.

International Labour Office. 1984. Introduction to Social Security. Third edition. Geneva: I.L.O.

International Labour Office. 1988 (forthcoming). Cost of Social Security: Twelfth international inquiry, 1981-1983: Basic tables. Geneva: I.L.O. Provisional data.

Lacey, Robert. 1987. "The Privatization of the Social Security System in Chile." Washington: World Bank. Processed.

Mesa-Lago, Carmelo. 1985. El Desarollo de la Seguridad Social en America Latina. Santiago de Chile: ECLA, Estudios y informes No. 43.

Mesa-Lago, Carmelo. 1986. "Comparative Study of the Development of Social Security in Latin America." International Social Security Review 39,2:127-152.

Munnell, Alicia H. 1986. "The Impact of Public and Private Pension Schemes on Saving and Capital Formation." International Social Security Review 39,3:243-257.

Samuelson, Paul. 1958. "An Exact Consumption Loan Model With or Without the Social Contrivance of Money." Journal of Political Economy 66,6:467-82.

Shome, Parthasarathi and Lyn Squire. 1983. "Alternative Mechanisms for Financing Social Security." Washington: Staff Working Papers No. 625, World Bank.

Turan, Kamil. 1985. The Turkish Social Security System. (Consultant's report for World Bank Sector Review Mission.) Ankara: processed.

United States. Social Security Administration. 1986. Social Security Programs Throughout the World. Washington: Research Report No. 60, Social Security Administration.

Wallich, Christine. 1983. "Savings Mobilization Through Social Security: The Experience of Chile During 1916-77." Washington: Staff Working Papers No. 553, World Bank.

Wallich, Christine. 1987. "Social Security in China" in forthcoming annex to: World Bank. 1987. Finance and Investment Report No. 6445-CHA. Washington: World Bank.

World Bank. 1986. Country Economic Memorandum on Uruguay (Appendix A: "Social Security: Present Situation and Prospects"). Washington: Report no. 6054-UR, World Bank.

Table 1.1 Adoption of social security programs
(Number of economies with programs in selected years) 1/

Latin America and the Caribbean (21 of 21 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	2	11	19	21
Sickness or maternity	2	11	18	20
Work injury	12	18	21	21
Unemployment	0	2	3	3
Family Allowance	0	3	6	7

Sub-Saharan Africa (33 of 35 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	0	0	19	27
Sickness or maternity	0	0	15	16
Work injury	1	21	30	32
Unemployment	0	0	0-1	3
Family Allowance	0	0	15	15

Middle East and North Africa (15 of 19 reported some program as of 1985 2/

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	0	0	12	14
Sickness or maternity	0	1	10	10
Work injury	2	9	13	14
Unemployment	0	0	1	3
Family Allowance	0	4	6	6

Middle-income Europe and South Africa (7 of 7 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	2	7	7	7
Sickness or maternity	5	7	7	7
Work injury	7	7	7	7
Unemployment	0	3	4	5
Family Allowance	0	3	7	7

Asia (14 out of 19 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	0	0	7	10
Sickness or maternity	0	0	5	5
Work injury	3	8	14	14
Unemployment	0	0	0	1
Family Allowance	0	0	0	0

Small-population economies (25 of 34 reported some program as of 1985) 3/

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	2	4	8	25
Sickness or maternity	1	2	4	15
Work injury	4	10	16	20
Unemployment	1	1-2	3-4	5
Family Allowance	0	0	3	4

1/ Low-income economies, middle-income economies, and high-income oil exporters listed in World Development Indicators, plus small-population economies. Gabon has been moved out of the list of small-population economies because its population should exceed the threshold by 1988.

2/ Includes Turkey.

3/ U.N. and World Bank member countries with populations below one million. Includes Luxembourg, Iceland, and several high-income oil exporters.

Source: U.S. Social Security Administration (1986), Social Security Programs Throughout the World 1985, Washington, D.C. Income categories: World Development Report 1987, World Development Indicators, Table 1, World Bank, Washington, D.C.

Table 1.2 Adoption of social security programs
(Number of economies with programs in selected years)

Low-income economies (31 out of 37 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	0	0	17	24
Sickness or maternity	0	0	14	14
Work injury	4	17	30	31
Unemployment	0	0	0	1
Family Allowance	0	0	10	10

Lower middle-income economies (33 out of 36 reported some program as of 1985)

Type of benefit	1925	1945	1965	1985
Old age, disability, or death	1	5	25	30
Sickness or maternity	1	7	22	23
Work injury	8	25	30	32
Unemployment	0	1	3	6
Family Allowance	0	4	10	11

Upper middle-income economies (23 out of 24 reported some program as of 1985)

Type of benefits	1925	1945	1965	1985
Old age, disability, or death	3	13	20	22
Sickness or maternity	6	12	18	19
Work injury	13	21	23	23
Unemployment	0	4	5	8
Family Allowance	0	6	14	14

Industrial market economies (19 out of 19 reported some program as of 1985)

Type of benefits	1925	1945	1965	1985
Old age, disability, or death	13	17	19	19
Sickness or maternity	12	16	17	18
Work injury	18	19	19	19
Unemployment	12	18	19	19
Family Allowance	0	11	17	19

Note: Gabon has been added to the upper middle-income countries. See note 1 to Table 1.1.

Sources: Program information: U.S. Social Security Administration (1986), Social Security Programs Throughout the World 1985, Washington, D.C. Income categories: World Development Report 1987, World Development Indicators, Table 1, World Bank, Washington, D.C.

Table 2 Principles applied to provision of various social security benefits (Numbers of economies in 1985)

Low-income economies

Type of benefit	Total 1/	Social insurance	Universal benefit or social assistance 2/	Provident Fund	Employer Liability
Old age, disability, or death	24	16	0	8	1
Sickness	5	4	0	1	11
Maternity	13	13	0	0	10
Medical care 3/	6	6	0	0	10
Work injury	19	19	0	0	12
Unemployment	1	0	0	1	2
Family allowance	10	10	0	0	1

Lower middle-income economies

Type of benefit	Total 1/	Social insurance	Universal benefit or social assistance 2/	Provident Fund	Employer Liability
Old age, disability, or death	30	27	(1)	3	0
Sickness	19	19	0	0	2
Maternity	23	23	0	0	4
Medical care 3/	19	18	1	0	2
Work injury	25	25	0	0	7
Unemployment	6	5	2	1	6
Family allowance	11	10	1	0	0

1/ Total excludes employer-liability programs.

2/ Parentheses indicate numbers of programs for which the principle is applied in conjunction with other principles.

3/ Medical care includes hospitalization insurance.

Source: Program information: U.S. Social Security Administration (1986), Social Security Programs Throughout the World 1985, Washington, D.C. Income categories: World Development Report 1987, World Development Indicators, Table 1, World Bank, Washington, D.C.

Upper middle-income economies

Type of benefit	Total 1/	Social insurance	Universal benefit or social assistance 2/	Provident Fund	Employer Liability
Old age, disability, or death	22	18	2	2	0
Sickness	18	18	(1)*	0	1
Maternity	19	19	0	0	2
Medical care 3/	21	17	3	1	0
Work injury	18	18	0	0	5
Unemployment	8	4	4	0	3
Family allowance	14	12	2	0	0

Industrial market economies

Type of benefit	Total 1/	Social insurance	Universal benefit or social assistance 2/	Provident Fund	Employer Liability
Old age, disability, or death	19	16	3(+5)	0	0
Sickness	18	16	2	0	0
Maternity	17	16	1	0	0
Medical care 3/	18	11	7	0	0
Work injury	15	15	(1)	0	4
Unemployment	19	17	2(+4)	0	0
Family allowance	19	5	13(+1)	0	0

Table 3 How benefits are provided under a sample of social security systems

Country 1/	Types of benefits and principles of finance 2/: Old age, disability and death	Sickness	Maternity	Medical Care	Work Injury	Unemployment	Family Allowance	Old age pensions: Normal Retirement Age (Male/Female)	Years of Required Contribution (Male/Female)	Earnings replacement rate (%) or benefit level 3/
Latin America & the Caribbean										
Haiti	I	-	-	-	I	-	-	55	20	33.3
Dominican Rep.	I	I	I	I	I	-	-	60	16	40+
Jamaica	I	-	I	M	I	-	-	65/60	3	B+C
Peru	I	I	I	I	I	-	-	60/55	15/13	50+
Colombia	I	I	I	I	I	E	I	60/55	10	45+
Chile										
Old system	I	I	I	I	I	I	I	65/60	16/10	50-70
New system	Pr	Pr	Pr	Pr	I	I	I	65/60	20	C
Brazil	I	I	I	I	I	Pr	I	65/60	5	70-95
Mexico	I	I	I	I	I	E	-	65	10	35-100
Argentina	I	I	I	I	E	E	I/A	60/55	15	70
Sub-Saharan Africa										
Malawi 4/	-	-	-	M	E	-	-	-	-	-
The Gambia	P	-	-	M	E	-	-	55	1	P
Kenya	P	E	E	I	E	-	-	60	1	P
Ghana	P	P	-	M	E	P	-	55/50	1	P
Zambia	P	E	E/P	M	E	-	-	50	1	P
Cote d'Ivoire	I	-	I	E	I	-	I	55	10	C
Nigeria	P	E	E	M	E	P	-	55	1	P
Cameroon	I	-	-	M	I	-	I	60	20	30-80
Botswana 4/	-	-	E	E	E	E	-	-	-	-
Mauritius	I/U	E	E	M	I	A	A	60	-	B+C
Congo	I	-	I	E	I	-	I	55	20	40-80
Europe, Middle East & North Africa										
Morocco	I	I	I	-	E	-	I	60	12-13	50-70
Egypt	I	I	I	I	I	I	-	60	10	22-80
Turkey	I	I	I	I	I	E	-	55/50	-	60
Tunisia	I	I	I	I	E	U/A	I	60	10	40-80
Hungary	I	I	I	U	I	A	I	60/55	10	33-75
Portugal	I	I	I	I	E	E/A	I	65/62	10	30-80
Yugoslavia	I	I	I	I	I	A	I	60/55	20	35-85
Cyprus	I	I	I	M	I	I	-	65	3	60+
Israel	I	E	I	I	I	I	U	65/60	5	B+C
Asia										
Bangladesh	P	-	I	-	I	-	-	-	-	-
Burma	I 5/	I	I	I	I	-	-	-	-	-
India	P	I	I	I	I	E	-	55	1	P
China 4/	E	E	E	E	E	-	-	60/55	10	60-90
Pakistan	I	I	I	I	I	-	-	55/50	15	C
Sri Lanka	P	-	E	M	E	-	-	55/50	1	P
Indonesia	P	I	I	I	E/I	-	-	55	1	P
Philippines	I	I	I	I	-	-	-	60	10	42+
Thailand	-	E	E	-	I	-	-	-	-	-
Malaysia	P 6/	-	E	M	I	-	-	55	1	P
Korea	-	-	-	I	E	-	-	-	-	-
Singapore	P	E	E	P	E	-	-	55	1	P
Industrial Market										
Japan	I	I	I	I	I	I	E/A	60/55	20	C
Sweden	I/U	I	I	I	I	I/A	U	65	25	B+60
United States	I	-	-	-	E/I	I	A	65	10	C

1/ Within each region, countries are listed in order of per capita income.

2/ Key to symbols for principles of finance:

- I - Social insurance
- U - Universal benefit
- A - Social assistance
- P - Provident fund
- E - Employer liability
- Pr - Mandatory private insurance
- M - Medical care provided under public program apart from social security.

3/ Key to symbols for benefit level:

Numbers are percentage replacement rates of earnings.

- B - Base level of benefit applied to all beneficiaries.
- C - Contribution-link to benefit level, too complex to specify here.
- P - Provident fund. Lump-sum benefit equal to contributions plus interest.

4/ Countries dropped from later tables due to lack of public social security system.

5/ Death benefits only.

6/ Invalidity pensions are provided on a social insurance basis.

Sources: U.S. Social Security Administration (1986), Social Security Programs Throughout the World-1985, Washington, D.C. For Bangladesh: International Labour Office, The Cost of Social Security: Twelfth international inquiry, 1981-83: Basic tables, Geneva, forthcoming.

Table 4 Coverage of population and active labor force in Latin America, 1980

Country	Population covered in sickness and maternity program (percent)	Active labor force covered in pension program (percent)
Low income		
Haiti	1	2
Lower middle-income		
Bolivia	25	18
Honduras	7	13
Nicaragua	9	19
Dominican Republic	8	14
El Salvador	6	12
Paraguay	18	14
Peru	17	37
Ecuador	8	23
Guatemala	14	33
Costa Rica	78	68
Colombia	12	22
Chile	67	62
Upper middle-income		
Brazil	96	96
Uruguay	69	81
Mexico	53	42
Panama	50	46
Argentina	79	69
Venezuela	45	50

Source: Carmelo Mesa-Lago (1986), "Comparative Study of the Development of Social Security in Latin America", International Social Security Review 39, 2: 127-152, Tables 1 and 3.

Table 5. Financial flows of social security and related programs (fiscal year ending during 1983). (Percentage of GDP, except for Surplus/Receipts)

Country	Social Security System: Receipts	Expenditures: Benefits	Expenditures: Total	Surplus	Surplus/ Receipts	Public Employees System: Receipts	Expenditures	Surplus	Other Programs: Public Medical	Other Programs: Public Assistance
Latin America and the Caribbean										
Haiti										
Dominican Rep.										
Jamaica	2.22%	0.59%	0.76%	1.46%	65.9%	0.70%	0.59%	0.11%	0.62%	0.24%
Peru	2.15%	2.04%	2.30%	-0.14%	-6.7%	0.00%	0.00%	0.00%	0.00%	0.00%
Columbia	2.03%	1.52%	1.75%	0.28%	13.9%	0.52%	0.47%	0.04%	0.00%	0.00%
Chile	16.73%	13.01%	14.29%	2.44%	14.6%	0.00%	0.00%	0.00%	0.00%	0.00%
Brazil	5.52%	5.07%	5.46%	0.06%	1.1%	0.15%	0.15%	0.00%	0.00%	0.00%
Mexico	2.03%	1.52%	2.11%	-0.08%	-3.9%	1.04%	0.65%	0.40%	0.00%	0.00%
Argentina										
Sub-Saharan Africa										
The Gambia										
Kenya	0.77%	0.05%	0.07%	0.70%	90.8%	0.00%	0.00%	0.00%	0.00%	0.00%
Ghana										
Zambia	2.62%	0.86%	1.22%	1.40%	53.3%	0.00%	0.00%	0.00%	0.00%	0.00%
Cote d'Ivoire	1.17%	0.51%	0.65%	0.51%	43.9%	0.00%	0.00%	0.00%	0.00%	0.00%
Nigeria	0.17%	0.01%	0.02%	0.14%	85.6%	0.00%	0.00%	0.00%	0.00%	0.00%
Cameroon	1.42%	0.36%	0.36%	1.06%	74.5%	0.21%	0.21%	0.00%	0.00%	0.00%
Mauritius	3.54%	1.88%	1.98%	1.57%	44.2%	0.00%	0.00%	0.00%	0.00%	0.16%
Congo	1.91%	0.61%	0.91%	1.00%	52.5%	0.00%	0.00%	0.00%	0.00%	0.00%
Europe, Middle East, and North Africa										
Morocco	1.54%	0.81%	0.86%	0.67%	43.7%	0.00%	0.00%	0.00%	0.00%	0.00%
Egypt										
Turkey	3.38%	2.23%	2.36%	1.02%	30.3%	1.47%	1.41%	0.05%	0.31%	0.01%
Tunisia										
Hungary	15.44%	15.36%	15.44%	0.00%	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%
Portugal	7.86%	7.44%	7.95%	-0.09%	-1.1%	1.74%	1.78%	-0.04%	3.38%	0.40%
Yugoslavia	11.33%	10.33%	11.27%	0.06%	0.5%	0.00%	0.00%	0.00%	0.00%	0.00%
Cyprus	6.53%	3.44%	3.52%	3.01%	46.1%	1.55%	1.13%	0.41%	1.93%	0.38%
Israel	10.42%	7.92%	9.27%	1.15%	11.1%	0.80%	0.80%	0.00%	0.00%	0.72%
Asia										
Bangladesh	0.01%	0.00%	0.00%	0.01%	55.3%	0.00%	0.00%	0.00%	0.00%	0.00%
Burma	0.08%	0.04%	0.05%	0.02%	31.3%	0.00%	0.00%	0.00%	0.00%	0.00%
India	1.33%	0.48%	0.51%	0.82%	61.3%	1.44%	0.92%	0.52%	0.00%	0.04%
Pakistan	0.10%	0.03%	0.04%	0.06%	60.3%	0.37%	0.37%	0.00%	0.00%	0.21%
Sri Lanka	2.00%	0.32%	0.34%	1.66%	83.0%	0.47%	1.81%	-1.34%	0.00%	0.06%
Indonesia	0.08%	0.01%	0.02%	0.05%	71.8%	0.00%	0.00%	0.00%	0.00%	0.00%
Philippines	1.00%	0.31%	0.34%	0.67%	66.4%	0.75%	0.40%	0.35%	0.00%	0.00%
Thailand	0.04%	0.01%	0.01%	0.02%	63.7%	0.16%	0.16%	0.00%	0.00%	0.00%
Malaysia	5.32%	0.77%	0.83%	4.49%	84.4%	0.00%	0.00%	0.00%	0.00%	0.04%
Korea										
Singapore	14.70%	3.79%	6.43%	8.27%	56.3%	0.26%	0.26%	0.00%	0.93%	0.01%
Industrial Market Countries										
Japan	10.97%	7.44%	8.46%	2.51%	22.9%	2.11%	1.58%	0.53%	0.25%	1.25%
Sweden*	19.88%	16.93%	17.38%	2.51%	12.6%	2.37%	2.37%	0.00%	7.77%	5.46%
United States	8.97%	8.34%	8.62%	0.35%	3.9%	3.27%	1.71%	1.55%	1.12%	2.66%

Table 7. Sources of Revenue for Social Security Systems

Country	Statutory Contribution Rates: (percent of wages or payroll) Insured Person	Employer	Percentage Distribution of Revenue--------- Contributions--- Insured Person	Employer	Other Taxes (State)	Invest-ment Income	Other
Latin America and the Caribbean							
Haiti	2 - 6%	4 - 12%					
Dominican Rep.	2.5	9.5					
Jamaica	2.5*	2.5*	24.3%	29.7%	7.4%	38.5%	0.1%
Peru	3	7 - 18.2	88.5%	(both)	0.0%	10.2%	1.2%
Columbia	5.5	18 - 24	23.7%	55.8%	0.0%	9.0%	11.4%
Chile	24.6-26.5***	4.2 - 4.6	31.1%	2.1%	48.9%	15.9%	2.0%
Brazil	8.5 - 10	14.7-16.8	15.6%	74.0%	8.2%	0.0%	2.2%
Mexico	3.75	11.3**	19.7%	61.9%	12.3%	5.2%	0.8%
Argentina	14	24					
Sub-Saharan Africa							
The Gambia	5	10					
Kenya	5	5	25.3%	25.3%	49.3%	0.0%	0.0%
Ghana	5	12.5					
Zambia	5	5	38.5%	28.5%	0.0%	32.8%	0.2%
Cote d'Ivoire	1.2	9.3-12.3	61.9%	17.7%	0.0%	20.4%	0.0%
Nigeria	6	6	28.2%	20.2%	0.0%	51.4%	0.3%
Cameroon	2.8	13-16.2	12.8%	64.4%	0.0%	22.8%	0.0%
Mauritius	3	6	10.6%	21.2%	52.3%	14.3%	1.6%
Congo	2.6	15.88	12.1%	80.2%	0.0%	7.5%	0.2%
Europe, Middle East, and North Africa							
Morocco	1.9	13.8	8.4%	78.4%	0.0%	13.2%	0.0%
Egypt	11	24					
Turkey	14	20.5**	36.9%	39.9%	5.1%	17.6%	0.5%
Tunisia	6.25	18.5-26.5					
Hungary	3 - 15	10 - 24	14.9%	47.1%	38.0%	0.0%	0.0%
Portugal	11.5	25	28.1%	64.1%	7.8%	0.0%	0.0%
Yugoslavia	23.2+	Varies	66.7%	24.5%	7.3%	0.9%	0.6%
Cyprus	6	6	35.1%	35.3%	20.6%	8.2%	0.7%
Israel	3.6	8.2**	23.2%	38.3%	27.2%	10.6%	0.7%
Asia							
Bangladesh	(Not reported)		19.4%	43.4%	4.3%	32.9%	0.0%
Burma	1	3	19.9%	59.8%	17.8%	1.9%	0.5%
India	8.75-10.5	11.6-13.4	29.7%	33.7%	1.1%	32.7%	2.8%
Pakistan	0	12	0.0%	72.3%	0.1%	26.9%	0.5%
Sri Lanka	8	13-19.5	28.7%	29.9%	0.0%	41.4%	0.0%
Indonesia	3	7+	16.5%	48.4%	0.0%	0.0%	35.1%
Philippines	2.85-4.55	7.75-9.45	20.0%	31.4%	0.0%	48.1%	0.5%
Thailand	0	0.2 - 4.5	0.0%	64.0%	3.7%	32.3%	0.0%
Malaysia	9.5	12.75	62.8%	2.2%	0.0%	34.4%	0.6%
Korea	1.5 - 4	3.24					
Singapore	25	25	39.6%	42.0%	0.0%	17.9%	0.5%
Industrial Market Countries							
Japan****	10.05	10.9-23.3	31.8%	28.8%	21.6%	11.6%	6.3%
Sweden	0*	30.45	1.8%	64.9%	16.7%	16.7%	0.0%
United States	7.05	12**	34.9%	45.1%	17.6%	2.3%	0.1%

Table 8. Distribution of benefits among types of benefits.
(Percent of total benefits)

Country	Old age, disability & death	Sickness and Maternity	Work Injury	Other Medical Care	Unemployment	Family Allowance	Other	(Total Medical Care)
Latin America and the Caribbean								
Haiti								
Dominican Rep.								
Jamaica	94.3%	0.1%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Peru	34.1%	58.8%	7.1%	0.0%	0.0%	0.0%	0.0%	65.5%
Columbia	28.8%	62.9%	8.3%	0.0%	0.0%	0.0%	0.0%	58.9%
Chile	65.9%	14.9%	2.5%	0.0%	3.5%	9.6%	3.6%	12.7%
Brazil	62.1%	11.6%	0.6%	21.9%	0.0%	3.3%	0.4%	21.9%
Mexico	22.5%	63.8%	10.1%	1.8%	0.0%	0.4%	1.4%	36.7%
Argentina								
Sub-Saharan Africa								
The Gambia								
Kenya	99.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	1.0%
Ghana								
Zambia	62.7%	0.9%	0.0%	0.0%	0.0%	0.0%	36.4%	0.0%
Cote d'Ivoire	32.9%	0.0%	24.1%	0.0%	0.0%	43.0%	0.0%	0.0%
Nigeria	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cameroon	10.0%	0.0%	14.9%	0.0%	0.0%	75.2%	0.0%	3.0%
Mauritius	92.2%	0.0%	*	0.0%	0.9%	7.4%	0.0%	0.0%
Congo	**	0.0%	**	0.0%	0.0%	**	0.0%	0.0%
Europe, Middle East, and North Africa								
Morocco	46.7%	2.5%	0.0%	0.0%	0.0%	50.9%	0.0%	0.0%
Egypt								
Turkey	61.9%	19.0%	3.2%	0.0%	0.0%	0.0%	15.9%	17.0%
Tunisia								
Hungary	54.1%	8.4%	0.4%	23.0%	0.0%	11.6%	2.5%	23.0%
Portugal	67.9%	9.6%	0.0%	0.0%	3.3%	10.0%	9.1%	0.0%
Yugoslavia	53.3%	7.9%	0.3%	33.9%	0.0%	4.6%	0.0%	33.9%
Cyprus	85.8%	4.8%	1.7%	0.0%	7.1%	0.0%	0.4%	0.1%
Israel	39.8%	3.3%	2.7%	32.8%	1.1%	19.1%	1.1%	34.2%
Asia								
Bangladesh	43.4%	46.3%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Burma	1.5%	27.3%	8.5%	62.6%	0.0%	0.0%	0.0%	62.6%
India	75.1%	8.5%	3.9%	11.0%	0.0%	0.0%	1.5%	11.0%
Pakistan	*	100.0%	*	0.0%	0.0%	0.0%	0.0%	85.3%
Sri Lanka	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Indonesia	38.5%	0.0%	61.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Philippines	73.7%	*	4.2%	22.1%	0.0%	0.0%	0.0%	23.3%
Thailand	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	41.2%
Malaysia	95.9%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	0.4%
Korea								
Singapore	97.7%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial Market Countries								
Japan	**	**	**	**	**	**	**	**
Sweden	61.3%	23.3%	1.4%	0.0%	5.1%	8.8%	0.0%	2.7%
United States	Figures for 1983 are not on hand as of this writing.							

Notes to Tables 5, 6, 7, and 8

Unfilled lines in these tables are for countries in our sample for which the International Labour Office has not received satisfactory information. In several cases information should be available in time for an updated version of this paper and these tables.

Table 5.

* Expenditure figures do not include some administrative expenses which apply to several programs.

All figures are for financial years ending in 1983.
Sources: Financial flows: International Labour Office (1988), The Cost of Social Security: Twelfth international inquiry, 1981-1983: Basic tables, Geneva (provisional figures from forthcoming publication). Gross Domestic Product: International Monetary Fund, International Financial Statistics Yearbook 1986 and Government Finance Statistics Yearbook 1986, Washington.

Table 6. Trends in financial flows: Table is forthcoming.

Financial flows are from earlier editions of I.L.O., Basic Tables. GDP is from I.M.F., op. cit.

Table 7.

*Plus additional universal contribution. **Average rate.
***Figures reflect old system. Under new system, the insured worker's contribution rate is 19.5%. Employer rate is unchanged.

Contribution rates are for 1985, revenue and GDP are for 1983.
Sources: Contribution rates: United States Social Security Administration (1986), Social Security Programs Throughout the World - 1985, Washington. Distribution of revenue: I.L.O., op. cit.

Table 8.

*Amounts are included in other tables.
**Division among types of benefits is not explicit.
[Jamaica-oad&d]: Includes 6.6% for which the nature of benefits is not explicit. [Mexico-other]: Day care for children.
[Turkey-other]: Funds which apparently provide multiple types of benefits. [Portugal-other]: Nature of benefits is not explicit.
Heading "Other Medical Care": Care not included under other benefits. Heading "Total Medical Care": Care included under various benefits.

Data are for 1983. Source: I.L.O., op. cit.

PPR Working Paper Series

	Title	Author	Date	Contact
WPS14	The Optimal Currency Composition of External Debt	Stijn Claessens	June 1988	S. Bertelsmeier 33768
WPS15	Stimulating Agricultural Growth and Rural Development in Sub-Saharan Africa	Vijay S. Vyas Dennis Casley	June 1988	H. Vallanasco 37591
WPS16	Antidumping Laws and Developing Countries	Patrick Messerlin	June 1988	S. Torrijos 33709
WPS17	Economic Development and the Debt Crisis	Stanley Fischer	June 1988	C. Papik 33792
WPS18	China's Vocational and Technical Training	Harold Noah John Middleton	June 1988	W. Ketema 33651
WPS19	Cote d'Ivoire's Vocational and Technical Education	Christiaan Grootaert	June 1988	R. Vartanian 34678
WPS20	Imports and Growth in Africa	Ramon Lopez Vinod Thomas	June 1988	61679
WPS21	Effects of European VERs on Japanese Autos	Jaime de Melo Patrick Messerlin	June 1988	S. Fallon 61680
WPS22	Methodological Problems in Cross-Country Analyses of Economic Growth	Jean-Paul Azam Patrick Guillaumont Sylviane Guillaumont	June 1988	E. Zamora 33706
WPS23	Cost-Effective Integration of Immunization and Basic Health Services in Developing Countries: The Problem of Joint Costs	A. Mead Over, Jr.	July 1988	N. Jose 33688
WPS24	World Bank Investments in Vocational Education and Training	John Middleton Terri Demsky	July 1988	W. Ketema 33651

PPR Working Paper Series

	Title	Author	Date	Contact
WPS25	A Comparison of Alternative Training Modes for Youth in Israel: Results from Longitudinal Data	Adrian Ziderman	July 1988	W. Ketema 33651
WPS26	Changing Patterns in Vocational Education	John Middleton	July 1988	W. Ketema 33651
WPS27	Family Background and Student Achievement	Marlaine E. Lockheed Bruce Fuller Ronald Nyirongo	July 1988	R. Rinaldi 33278
WPS28	Temporary Windfalls and Compensation Arrangements	Bela Balassa	June 1988	N. Campbell 33769
WPS29	The Relative Effectiveness of Single-Sex and Coeducational Schools in Thailand	Emmanuel Jimenez Marlaine E. Lockheed	August 1988	T. Hawkins 33678
WPS30	The Adding Up Problem	Bela Balassa	July 1988	N. Campbell 33769
WPS31	Public Finance and Economic Development	Bela Balassa	August 1988	N. Campbell 33769
WPS32	Municipal Development Funds and Intermediaries	Kenneth Davey	July 1988	R. Blade-Charest 33754
WPS33	Fiscal Policy in Commodity-Exporting LDCs	John Cuddington	July 1988	R. Blade-Charest 33754
WPS34	Fiscal Issues in Macroeconomic Stabilization	Lance Taylor		
WPS35	Improving the Allocation and Management of Public Spending	Stephen Lister	August 1988	R. Blade-Charest 33754

Policy, Planning, and Research

WORKING PAPERS

World Development Report

Office of the Vice President
Development Economics
The World Bank
September 1988
WPS 34

Background Paper for the 1988 World Development Report

Fiscal Issues in Macroeconomic Stabilization

Lance Taylor

Fiscal austerity's threat to normal policy goals looms even larger because many of its effects are unexpected and poorly understood.

Policy, Planning, and Research

WORKING PAPERS

World Development Report

A key question for stabilization programs is this: How do governments get into fiscal difficulty in the first place?

Three views predominate: the political deficit, the structural deficit, and the inflation tax. In the first view, the state is forced toward taxing too little and spending too much, both to pay off specific interest groups and to sustain employment through aggregate demand. In the second view, the economy suffers a contractionary shock — such as falling terms of trade or interest rate incursions on external debt — which the government tries to offset by fiscal means in the short run. In the third view, the state indulges the desire to use revenue from the inflation tax in the absence of other sources.

Fiscal deficits thus have numerous causes — not all of them irrational, not all adding to aggregate demand. Reducing the deficit is nevertheless the sine qua non of orthodox stabilization packages. How does such austerity affect an economy's chances of achieving the normal policy goals of:

- Maintaining socially acceptable capacity use and growth?
- Keeping inflation tolerable?
- Altering the distributions of income and wealth?
- Maintaining self-reliance in trade and external finance?

It makes each of these tasks harder, because of the incomplete understanding of the likely effects of fiscal measures.

First, policymakers need to know more about the specific effects of different policies. For example, cuts in public investment may also cause private capital formation to decline. Changes in the prices that public enterprises charge for food or essential services can have strong distributional repercussions. And the bidding up of interest rates can, if accompanied by other incentives, make capital repatriation and emigrant remittance more likely.

Second, fiscal measures should not be independent of other policy moves. If devaluation causes contraction, teaming it with fiscal restraint may lead to extreme losses of output — the overkill for which orthodox programs are often criticized.

Third, fiscal measures can sometimes substitute for other (less savory) policy changes. For example, the narrower and more directed fiscal interventions can avoid many of devaluation's unpleasant economywide effects (political visibility, output contractions, and price inflation because of the higher costs of imported inputs).

This is a background paper for the 1988 World Development Report. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Rhoda Blade-Charest, room S13-060, extension 33754.

Fiscal Issues in
Macroeconomic Stabilization

by
Lance Taylor

TABLE OF CONTENTS

Introduction 1

1. Macroeconomic Background 1

2. The Fiscal Deficit 8

3. Effects of Deficit Reduction 16

4. Effects of Specific Policy Moves 21

References 26

Illustrations

Figure 1 4
Figure 2 6

This paper is about fiscal policy issues that arise during macroeconomic stabilization in developing economies. The empirical background comes from a recent study of stabilization episodes in 18 countries, organized by the World Institute for Development Economics Research (WIDER) in Helsinki. The results are reviewed in a summary monograph by Taylor (1988), and the country papers are available from WIDER.

Fiscal policy cannot be described outside a macroeconomic framework. Section 1 sets out the basics, as they apply in the WIDER studies. Section 2 takes up three theories about the fiscal deficit -- it may rise for political or structural reasons, or perhaps because the relevant authorities want to maximize revenue from the inflation tax. Section 3 is about the effects of deficit reduction, a central component of orthodox stabilization packages. Section 4 takes up other fiscal topics brought up in the WIDER country papers.

1. Macroeconomic Background

There are four classic modes of macroeconomic adjustment in the short run -- changes in the level of output, the trade balance, income distribution, and real wealth. We begin with the first, familiar from the General Theory and countless macro textbooks in its wake. A demand injection, say greater government spending or reduced taxes, makes economic activity rise. The increased production generates additional income, which feeds back into more consumption, still greater output, and so on until the multiplier chain converges to an equilibrium level of supply.

This story is well-known, and emphasized in the WIDER

studies. Stabilization programs based upon austerity always concentrate on reducing the fiscal deficit. As discussed in section 3, they set off a contractionary multiplier output response instead of slowing price increases as they are often meant to do. Expansionary policies may stimulate output within some range, the prior limits to which are uncertain ex ante but essential to policy design.

Besides the fiscal position, the income distribution may also change in response to policy maneuvers or other forces. In stabilization packages, "incomes policies," which often have a large fiscal content, are directed toward distributional ends. Orthodox programs, for example, frequently incorporate wage cuts, price increases for export crops, and other moves aimed at changing the pattern of resource allocation. What is their effect on the level of economic activity?

To answer such a question, one must begin by distinguishing relevent economic groups, i.e. by setting up a class structure. Although the WIDER studies work with fairly complex "social matrixes" to support their distributional analyses, we stick with the basics here. The simplest and most traditional model focuses on worker-capitalist conflict over an index of distribution, say the real wage.

How does the level of activity adjust when the real wage (or more generally an indicator of the progressiveness of the income distribution) goes up? Economists concentrate on two standard lines of response. The generally orthodox story is that a higher wage forces employers to cut back on jobs while at the same time exports fall because they become less cost-competitive. Through

both channels, real wage increases make output decline. Contrariwise, wage cuts stimulate production. This sort of output response is often presumed by designers of orthodox stabilization programs.

Alternatively, wage cuts are likely to hold down consumer demand and thereby the level of output -- a common observation in the WIDER studies. If private investment responds to the level of activity, as in standard accelerator investment theories, capital formation and growth will also decline. Real wage reductions lead to economic stagnation; wage increases perk up a sluggish system. This sort of response to distributional change is sometimes called "stagnationist;" its mirror image of output increases in response to wage reductions characterizes an "exhilarationist" macro system.

Although there is no certainty regarding the matter, one might expect stagnationist adjustment when the real wage is low, and exhilaration when it is high. The "Output response" curve in Figure 1 is based on these hypotheses, with a positive slope for low wage levels, and a negative slope for high ones. If output adjustment to demand changes is rapid (the usual supposition), the economy will "always" be on the output response locus, unless other restrictions bind. The locus will change its position in response to policy moves. Expansionary fiscal actions shift it to the right, increasing economic activity with an unchanged income distribution.

What forms could additional restrictions on output take? Production in developing economies is subject to several kinds of upper bounds. If industrial activity relies upon intermediate

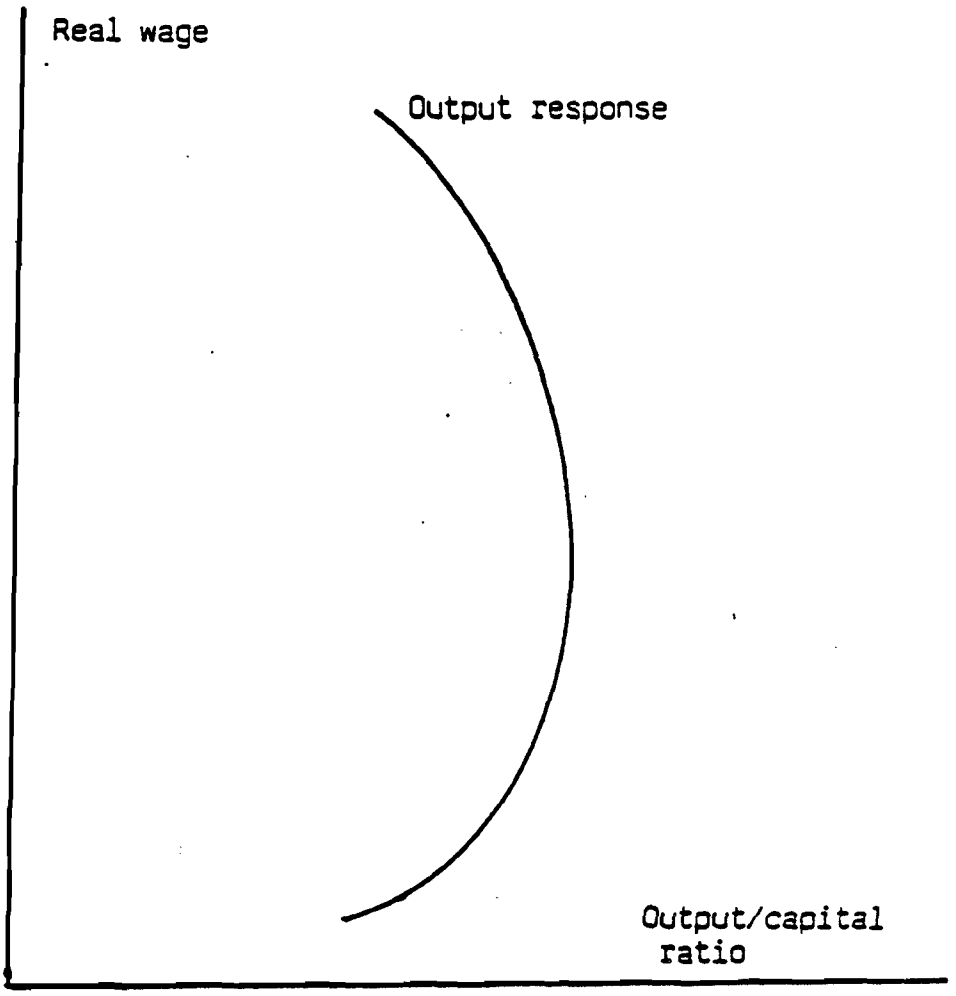


Figure 1: Relationship between the real wage and output with no capacity constraint.

imports (the usual case when import substitution of final goods has been pursued), scarce foreign exchange may limit potential supply. At times, capacity within key sectors or their suppliers (e.g. of non-traded infrastructural inputs such as transport and energy) may hold down production levels. Finally, in the short run supplies of key commodities like staple foods will be determined by weather conditions and the seasonal cycle. At the macro level, all these constraints add up to a "Capacity limit," the vertical line in Figure 2.

In Figure 2, the economy may operate below capacity either along the stagnationist segment AB or in the exhilarationist range CD. Along the line segment BC, production constraints bind. Below full capacity, adjustment of output toward the relevant curve is usually assumed to be rapid, as shown by the small arrows. The interesting question in terms of the diagram is how to describe macro adjustment when capacity limits begin to bind, due for example to progressive income redistribution in a stagnationist economy or expansionary policy which shifts the entire Ouput response curve to the right. Three adjustment mechanisms are emphasized in the WIDER studies.

First, a demand level exceeding capacity will probably make prices rise. If the nominal wage is not fully indexed to inflation, the real wage declines, reducing demand and output in a stagnationist system. Short-run inflationary adjustment via workers's "forced saving" (or "automatic lacking" in Dennis Robertson's phrase) toward limited capacity is stable in this case -- the segment BZ in Figure 2. If the economy behaves in exhilarationist fashion -- segment ZC -- price increases raise

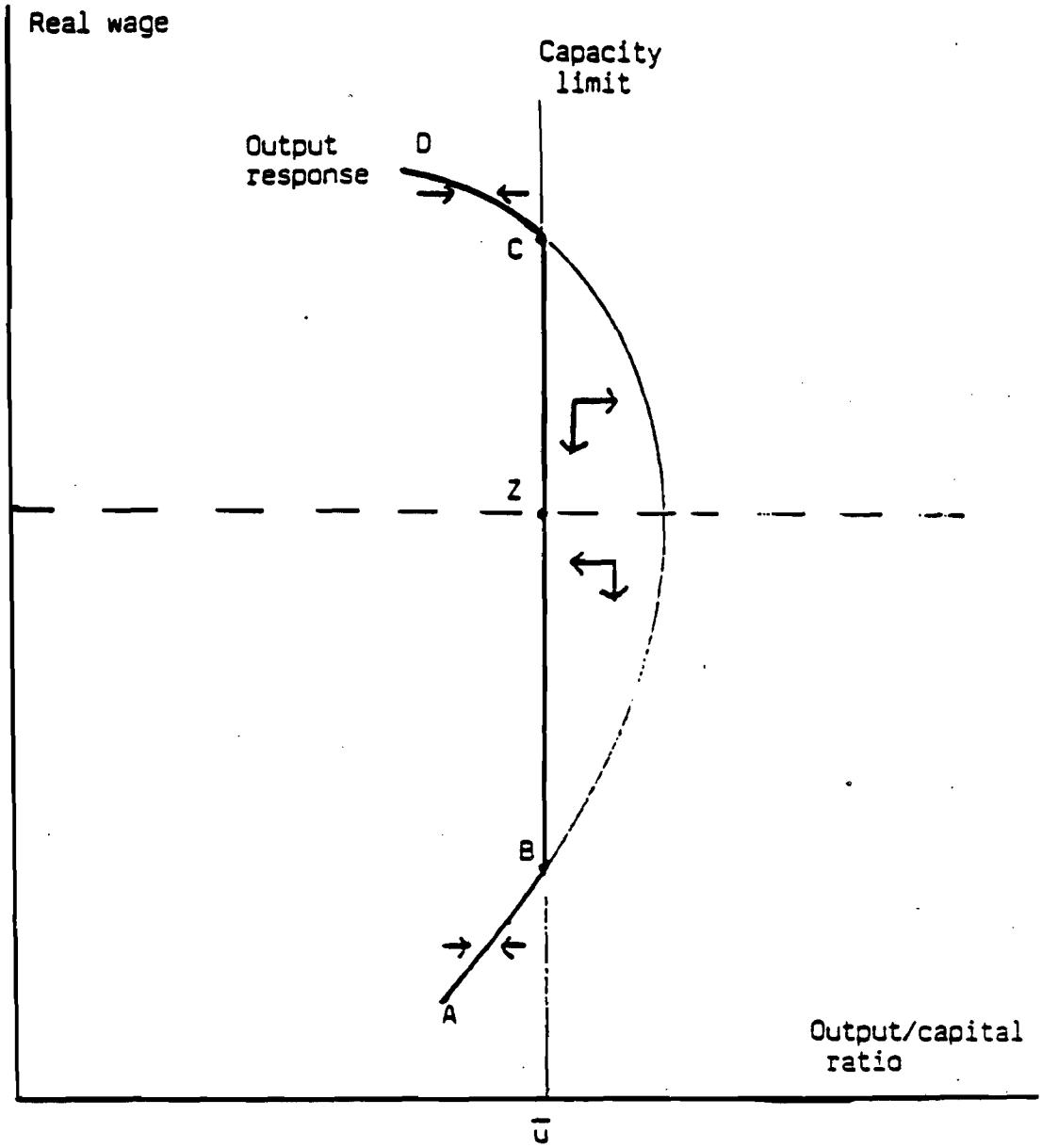


Figure 2: Modes of adjustment with and without a binding capacity constraint.

profits, stimulate investment, and lead toward hyperinflation in response to an initial increment in demand. Such cases may occasionally arise, but not in the WIDER sample.

Second, the initial price increase will reduce "real balances," i.e. the money stock divided by the price level. With the real value of their assets reduced by this change, wealth-holders may save more to compensate, cutting aggregate demand. This process runs parallel to forced saving -- the two are difficult to distinguish in practice.

When there is an ongoing inflation, the real balance adjustment can be reinterpreted as an "inflation tax." To see how, we can invoke the quantity theory of money as enshrined in the "equation of exchange," $MV = PX$, where M is the money supply, V is velocity (taken to be an institutionally determined constant), P is the price level, and X is output (assumed fixed by supply conditions or capacity). If we let "hats" over variables denote their rates of growth, the dynamic version of the quantity equation is $\hat{M} = \hat{P} + \hat{X}$, where $\hat{M} = \Delta M/M$, etc. and velocity is assumed constant.

This new equation simply states that the growth rate of the money supply equals the sum of the inflation rate and the output growth rate -- a tautology when V is constant. Modest additional manipulation produces $\Delta M = \Delta P(M/P) + P\Delta X/V$. An incremental increase in money supply (from an increased fiscal deficit financed at the central bank, for example) decomposes into the instantaneous loss in real balances M/P due to a price increase ΔP (sometimes called the "inflation tax") and an output growth term (sometimes called "seignorage," although terminology is not fully

standardized in this area).

The pure tax yield rises along with inflation. However, if V gradually declines as $\dot{P}$ rises (an empirical truism), the seignorage yield declines. Governments at times are said to push up aggregate demand, hoping to finance the corresponding fiscal deficit via seignorage and the inflation tax. As we will see below, the assertion in practice seems a bit far-fetched.

A final means of evading capacity limitations is through imports -- the economy can satisfy increased demand while meeting local supply restrictions through this device. Two problems arise. One, technical, is that essentially non-traded goods such as infrastructure services and the construction component of investment are not easy to bring in to alleviate capacity limits. With high demand, prices for such commodities are bound to rise. Second, foreign exchange has to be available from reserves or capital inflows to finance extra purchases abroad. Such plenitude of dollars is rare in the Third World.

2. <u>The Fiscal Deficit</u>

Against this macroeconomic backdrop, we can ask a key question for stabilization programs: How does a government get into fiscal difficulty -- conventionally defined as a large and/or increasing public sector deficit -- in the first place? Three views predominate in the literature. They can be labelled the political deficit, the structural deficit, and the inflation tax approaches respectively.

Blaming political forces for fiscal expansion is an old tradition in economics, shared by conservatives such as Schumpeter (1954) and radicals like O'Connor (1973) at different places and

times. The general view is that to maintain its political legitimacy, the state is forced toward taxing too little or spending too much, both to pay off specific interest groups and (in a Keynesian twist) to sustain the level of employment via aggregate demand. This policy bias leads ultimately to increasing external deficits and/or inflation, requiring stabilization through deficit reduction in some long run. In Figure 2, the expansionary policies shift the Output response schedule so far to the right that with a given income distribution, capacity limits begin to bind. The resulting inflation, income and wealth redistribution, and/or import increases become intolerable after a time.

In one example of this line of thought, the Mexican crisis after 1982 is attributed by some analysts to politically driven expansion by a government which overestimated its spending power from the oil and foreign borrowing booms of the 1970's. Inflation did not accelerate dramatically until after 1982, but before then unsustainable levels of imports were said to be the result.

Elsewhere, as in Sri Lanka and Turkey in the 1970's and in Ghana for two decades after the early 1960's, political disruption reflected itself in large fiscal deficits as politicians grasped at whatever means were available to retain power (usually without much success). Finally, politically directed redistribution plus expansionary fiscal policy in the stagnationist economy of Salvador Allende's Chile stimulated output to the point at which capacity limits bound, triggering inflation and external imbalance. In all these cases, stabilizations ultimately took place, but their basic causes did not come from the economic

sphere.

Structuralist economists are by no means opposed to invoking politics to explain deficits, but also suggest other reasons for them to exist. One is an external shock -- falling terms of trade, an export supply shortfall, or an interest rate excursion on external debt. Such shocks are contractionary; most governments try to offset them in the short run by fiscal means. Causality runs from the external to internal deficit, reversing the usual political link. If the shock proves long-lasting, foreign finance may dry up, forcing attempts at stabilization and general improvement of the economy's trade performance.

During the past decade or so, many developing countries have undergone shocks of this sort. For example, with benefit of hindsight one can argue that the people in charge of policy in the primary product exporting economies failed to foresee the severity of the decline in the external terms of trade that began in the late 1970's. Orthodox macro theory suggests that one should "finance temporary shocks and adjust to permanent ones." The recommendation looks reasonable in a textbook, but is impractical in the real world. One initially tries to ride out a shock by supporting domestic demand, and learns only as the "dark forces of time and ignorance" play their hand that it is "permanent." Sensible policy-makers (as opposed to theory's rational agents equipped with perfect foresight) would do nothing else. Their countries's fiscal deficits widened substantially as a consequence.

Besides external shocks, other structural factors may force fiscal expansion. They include natural disasters, financial

turmoil, ongoing inflation with indexed government debt, and foreign payments obligations.

The disaster secenario is familiar. It requires little comment beyond the observation that relief efforts have both a supply and demand dimension. Not only must commodities be supplied to victims, they must also be in demand. For example, one recent theory (Sen, 1981) attributes famine largely to a demand collapse induced by rising food prices in the face of fixed nominal incomes -- an extreme case of forced saving. Restoring demand involves fiscal deficit spending to transfer income to the groups hit hardest by the price increases.

Financial collapse lies at the root of many stabilizations. One thinks of recent experiences in South America's Southern Cone (Diaz-Alejandro, 1981), the Philippines, Turkey, Kuwait, and elsewhere. There are strong family resemblances among recent financial developments in all these economies.

The typical scenario begins with a surge in speculation involving shares and/or real estate. A bubble is most likely to blow itself up when potential saving is high (say from regressive income redistribution), productive investment outlets do not seem to be available, and (in recent cases) when deregulation of the financial system opens possibilities for manipulation. Under such conditions, ways to generate speculative gains recur throughout capitalism's history. They were promptly rediscovered in the Third World.

During Chile's free market boom of the late 1970's, conglomerates were created by groups with nicknames like the Piranhas and Crocodiles around firms denationalized by the

Pinochet government after the Allende period. In a deregulated financial environment, they promptly borrowed from banks under their control to bid up their own share prices until the stock market crashed. The Philippine central bank itself issued high interest paper to finance Ferdinand Marcos's electioneering, drying up private credit and provoking an output collapse. Kuwaiti investors wrote post-dated checks to cover stock transactions, which then circulated as an alternative means of payment until they had to be called.

Such devices can only function for a time -- a crash is inevitable when confidence in unbacked financial instruments breaks down. The collapse leaves firms and banks with badly compromised balance sheet positions -- there is usually a "debt-deflation" recession, in Irving Fisher's (1933) phrase. The subsequent bail-out involves fiscal outlays and heavy rediscounting by the central bank of commercial bank loans. The government may also issue its internal obligations in exchange for the private sector's foreign debt, and may have direct problems with the balance sheets of public enterprises. Finally, disruption in local financial markets provokes capital flight. It tends to be more serious under deregulated financial regimes in which exchange controls have been weakened or removed.

Most of these interventions increase the state's deficit. For example, Argentina now has a newly coined "quasi-fiscal deficit" which is basically a continuing transfer to commercial banks to enable them to pay high interest rates on deposits to forestall capital flight. In that country and elsewhere, the central bank's wide open rediscount window tempts provincial politicians with

development banks under their thumbs to spend freely. The local banks can always rediscount their loans in the capital, and the consolidated government deficit soars up. Through these and similar channels, financial collapse usually makes the overall fiscal position worse.

The next structural cause of a fiscal deficit is monetary indexation under continuing inflation. Before going into details, it makes sense to digress briefly to discuss the causes of inflation inself.

Ongoing inflationary processes can arise for many reasons -- they are highly dependent on the nature of the economy at hand. Theories about them fall into two classes -- monetarist and structuralist. The monetarist view has already been discussed in connection with the equation of exchange. Rapid growth in the money supply (said to result principally from monetization of the fiscal deficit in an economy where the financial market is not well enough developed to permit the state to borrow from sources besides the central bank) signals excess commodity demand. According to the quantity theory, money growth transforms itself into proportional price increases. The cure for inflation on the basis of this reasoning is to cut demand by reducing the deficit -- a prescription that often is ineffective, as we will see below.

Structural inflation theory argues more from the side of costs than demand, emphasizing distributional conflict and indexation mechanisms. An initial price excursion -- say from a supply shock, a period of forced saving in response to expansionary policy or an increase in local spending power as from an export price increase, or a cost shock such as devaluation --

reduces some income flows in real terms. The shock marks the first stage of inflation, during which distributional losers try to fight back.

Their major weapons are the prices over which they have control. Workers, for example, push for higher nominal wages. Wage pressure drives up production costs; final goods prices rise in turn via mark-ups. Such reactions set the stage for an inflationary spiral, more rapid insofar as individual prices are indexed with short lags to the whole set. When indexation takes over completely, the inflation becomes self-sustaining ("inertial" in the jargon), and the original distributional strife may be forgotten. Recent "heterodox shock" anti-inflation programs in Latin America have been based on a diagnosis of inertial inflation. Their fiscal implications are taken up in section 4.

If inflation is structural, it steadily erodes the real value of the money supply -- the inflation tax begins to bite. One way to avoid this problem is to index money by paying interest on all state obligations. In principle, such a policy is fiscally neutral. The inflation tax cuts demand; interest payments on government debt offset the tax. However, when inflation reaches triple digits, nominal government outlays for interest payments soar. As discussed in the WIDER studies, increased structural deficits because of "monetary correction" have been a bone of contention between several Latin American countries and the IMF. The Fund's recent tendency, e.g. in Mexico, is to accept the point that the part of the deficit supporting monetary correction is not a target for reduction until structural inflation disappears, but the issue is still controversial.

A final structural source of deficits is the need to make a foreign transfer. After the debt crisis of the early 1980's, governments in most developing countries took over the bulk of external obligations, often through financial system bail-outs as discussed above. They now face a double transfer problem -- externally, the country has to run a trade surplus to meet its debt payments, and internally the state has to obtain foreign exchange to meet the payment targets.

To get the dollars it needs, the government either has to tax exporters or buy their proceeds from them. If it takes the latter course, it may borrow from the central bank. In principle, no money creation is involved. As the external payments are accomplished, foreign reserves decline in the same magnitude as government borrowing goes up -- the quantity of base money remains unchanged. However, the fiscal deficit does rise. As with monetary correction, this sort of deficit spending has been a major source of controversy between indebted countries and the Fund.

A final reason for deficit spending -- often proposed by monetarist economists -- is the state's desire to use revenue from the inflation tax in the absence of other feasible sources. This view evidently harks back to political theories of the deficit -- the inflation tax just gives it an economic twist. Since monetarists usually assume that the level of output is fixed from the side of supply, they think that the tax has no effects on the real economy. It just boils down to a transfer from wealth-holders to the state. Since seignorage yield declines with increasing velocity, some inflation rate will maximize fiscal revenue. A

sort of Laffer curve is involved, because inflation also tends to cut back on ordinary tax yields because of payments lags in the system (Tanzi, 1977).

One can try to calculate the inflation rate that maximizes revenue -- it often turns out to be in the double digits. In the Third World, many inflations run at a faster pace. Either incompetent computation or additional factors must be behind such rapid price increases. Widespread indexation which makes the inflation rate highly sensitive to upward shocks and possible macro instability (as along segment ZC in Figure 2) are more likely culprits, or so the authors of the WIDER studies believe.

3. Effects of Deficit Reduction

The foregoing discussion suggests that fiscal deficits have numerous causes -- not all deficits are irrational, and not all add to aggregate demand. Nonetheless, deficit reduction is the *sine qua non* of orthodox stabilization packages of the type usually proposed by the Bank and Fund. How does such austerity affect the economy's chances of achieving normal policy goals?

Most governments share at least four economic targets:

(1) to maintain socially acceptable levels of capacity utilization and growth, especially in sectors and regions dominated by their political base;

(2) to keep inflation down to a rate tolerable in terms of the country's own history of price increases and social defenses against them;

(3) to alter wealth and income distributions in line with the regime's ideological predilections and political constraints; and

(4) to maintain a degree of self-reliance in trade and

external financial relationships.

The previous section has enumerated some of the macroeconomic shocks that make these goals difficult to attain. In many cases, restrictive fiscal policy only makes the task harder.

To see the effects of cutting fiscal deficits, it is useful to return to Figure 2. The orthodox diagnosis is that an economy must be stabilized because there is too much aggregate demand; standard programs don't pay much attention to other destabilizing forces like those discussed above. Absent the capacity limit, high demand means that macro equilibrium would lie somewhere on the bow-shaped portion of the Output response schedule to the right of the line segment BC. However, the capacity constraint is assumed to bind. Inflation and/or trade imbalance enter to allow output to lie along BC. To obviate the need for these forms of macro adjustment, the output locus should be shifted inward via fiscal restraint. Since the economy is initially in an excess demand situation, output will not fall unless the locus is shifted completely to the left of the capacity limit line.

The WIDER analysts observe that the results from austerity packages are not quite what this theory predicts. Typically, output contraction follows immediately upon imposition of fiscal restraint -- the full capacity use component of goal number (1) is sacrificed. If austerity persists, growth is not rapid either. The reason is that fiscal contraction has no built-in means to assure robust investment demand.

Private investment stagnates for at least two reasons. The standard one is that accelerator mechanisms will not operate while economic activity is being held down. The WIDER studies also argue

that because of structural complementarities, increased public capital formation in developing economies crowds private investment in, not out by raising interest rates in financial markets along orthodox lines. Fiscal restraint often involves cuts in public projects. If private investment is thereby held down, growth prospects are doubly dimmed -- by austerity itself and its special effects on capital formation.

The record in slowing inflation is not much better. The WIDER results show that insofar as inflation is structural, it will be unaffected by deficit cuts. There may be some slowdown of price increases under special circumstances -- when most markets (including the one for labor) are "flex-price" in Hicks's (1965) terminology and when indexation mechanisms are not widespread.

Such conditions distinctly do not apply in Latin America. In several countries in that region, long periods of low demand have left inflation rates untouched. Only when recession drags on for several years are citizens's income aspirations cut back sufficiently to permit stabilization. In Chile, heavy-handed austerity took four years (1974 to 1978) to cut the annual inflation rate from 600 to 30 percent, meanwhile doubling measured employment to 18 percent (or higher, if one counts people on a government dole) at a real wage 30 percent below that of 1970. Mexican inflation remains stubbornly in the higher double digit range despite five years of monetary and fiscal restraint after 1982.

The situation is somewhat different in a few African and Asian countries, e.g. the Philippines where "only" five or six quarters were required to reduce inflation from 63 percent to

single digits in 1984 and 1985, with real GDP losses of 6.8 and 3.8 percent in the two years respectively. Ghana and India also saw slower inflation from spending cuts. All three economies share flex-price markets for a large proportion of final products and no great degree of indexation for the wage or exchange rate, the major components of producer cost.

Next, there is the external question. After pursuing import substitution, most developing economies become dependent on foreign intermediate inputs to sustain production. Also, most of them need to import around one-half (the non-construction component) of the value of new capital formation. As we have seen, austerity restrains total output and may especially penalize investment demand. Hence, imports drop sharply and the trade balance improves.

There may also be some improvment in exports, in two cases. The first is when a popular consumption item is also exported, e.g. beef in Argentina or rice in Thailand. Then domestic contraction will open up a vent for surplus sales abroad. Similar responses may occur in the handful of developing economies that have significant manufactured exports. Lower domestic demand drives firms to search for markets abroad. Even in recent "miracle" cases (e.g. Turkey), however, exporters have not responded by increasing their own investment. This vent for surplus is ultimately self-closing.

Finally, on capital account, austerity at times slows capital flight by driving up local interest rates. On the other hand, if domestic investment is not strong, the repatriated capital meets no local demand. Financial "sources" exceed "uses" in the jargon

of the flows of funds. The policy lesson is that domestic stagnation does not strongly attract flown capital of (for that matter) other pools of foreign exchange such as the receipts of emigrant workers.

With regard to the income distribution, fiscal austerity often involves scaling down social service activities such as education and health, as well as cutting back on food subsidy and similar programs. Typically, the results are regressive. Direct impacts of other components of stabilizaton packages may alter the distribution in either equalizing or unequalizing fashion. Besides reducing demand in a stagnationist system, real wage cuts are likely to increase income concentration. On the other hand, producer price increases for food or export crops may benefit poor peasants. A mixed bag of such outcomes is perhaps typical of most stabilization programs.

In summary, fiscal austerity improves the trade balance by cutting back on the level of economic activity and thereby imports. Exports in some cases will rise with reduced domestic absorption in vent-for-surplus fashion. Capacity utilization and growth will usually be retarded, especially when investment demand by the private sector responds positively to output increases in accelerator fashion or to public capital formation for reasons of complementarity. Only in certain cases will deficit reduction reduce inflation in a reasonable period of time; even so, output losses are likely to be involved. The distributional effects will as often as not be regressive. Austerity is no panacea in a stabilization crisis. It has to be supplemented with other policies to give acceptable economic results. Some will be of a

fiscal nature, as discussed in the following section.

4. Effects of Specific Policy Moves

The general thrust of this last section is that when an economy is undergoing stabilization involving austerity, its macro equilibrium position may well lie along the stagnationist branch of the Output response curve in Figure 2. As likely as not, its inflationary process will be structural in nature since excess commodity demand and/or reliance on the inflation tax (if it ever existed) has been removed. The question at hand regards the likely effects of fiscal and other measures under such circumstances. The WIDER studies point to several relevant policy linkages, some already mentioned in passing.

First, one must be aware of specific effects of different policies. As we have seen, cutting public investment may also lead private capital formation to decline. Increasing indirect taxes will drive up costs, possibly accelerating a structural inflation. Successful anti-inflation policies are likely to lead to more efficient tax collection as the effects of payment lags on real revenues are reduced. Hence, more fiscal demand contraction may occur than had been planned.

Second, inflation reduction will have other macro effects that have to be taken into consideration. Besides increasing the tax take, Latin American heterodox shock programs which attempted to brake inflation by de-indexing the economy at a stroke were accompanied by shifts in demand for money and commodities. Monetary correction as discussed in section 2 was never completely effective. As a consequence, dramatically slower inflation made velocity fall or money demand rise. Room was opened for money

creation, either by fiscal deficit spending or reserve increases from capital inflows. In Argentina, the latter turned out to be more important in practice, but the story could be different in other circumstances.

Reducing inflation also got rid of the inflation tax. This observation rationalizes the fact that heterodox shocks in both Argentina and Brazil were accompanied by rapid increases in consumer demand (magnified in Brazil by a wage increase that offset previous forced saving). The fiscal restraint implicit in more effective direct and indirect tax collection was offset by the expansionary effect of undoing the erosion of real wealth by steadily rising prices.

Monetarist economists did not anticipate this outcome because they typically postulate supply-side determination of output. In their view, eliminating the tax would only affect transfers from rentiers to the state, not the level of economic activity. Structuralists did not think about it because they viewed the inflation tax as a monetarist ploy. Each side can learn from the other in future anti-inflation programs. They will have to do so if the programs are to succeed, since several interacting responses to slower inflation evidently arise.

Third, prices charged or offered by public enterprises are an important component of fiscal policy in many countries. Changes in prices charged for essential services or food may have strong distributional repercussions. If public enterprises sell intermediate goods, then increasing their prices will have ambiguous effects on inflation. Producers's costs will rise. They may well pass them along to final commodity prices, provoking

structural inflation. On the other hand, the consolidated public sector deficit will be reduced, leading to less state borrowing from the central bank and money creation. The inflation rate may decline for monetarist reasons. Which effect dominates is an important empirical question. Model simulations underlying several of the WIDER studies suggest that the cost linkage may be the stronger.

With regard to prices offered, crop marketing boards often play an important fiscal role, especially in sub-Saharan Africa. Their profit-and-loss position will be strongly affected by the exchange rate, since they must cover the discrepancies between internal prices offered growers (plus internal trade and transport costs) and world prices converted to local currency terms through the exchange rate. By raising marketing board profits (with internal prices unchanged), devaluation becomes a direct fiscal tool. More generally, the performance of the boards is highly dependent on exchange rate policy, since there are limits to the size of the wedges they can drive between internal and external crop prices.

Finally, welfare programs such as food subsidies can have important fiscal and balance of payments effects. With supply elasticities in the usual empirical range, for example, an increased subsidy rate on food purchases will create inflationary pressure unless stocks are run down or imports brought in to meet the additional demand the subsidy creates. If new supplies do not materialize, a forced saving situation like the one along segment BZ in Figure 2 will arise -- prices will go up enough to offset both the direct demand increase and the fiscal injection it

embodies. Despite the subsidy, the real purchasers's price of food could easily increase.

A fourth observation is that fiscal measures should not be undertaken independently of other policy moves. Devaluation, for example, may at times lead to output contraction in developing economies through well-known channels (Krugman and Taylor, 1978). Suppose that one is contemplating combining fiscal austerity and devaluation in a package aimed at improving the trade balance. Assume first that devaluation is expansionary, increasing output. Then it can safely be put together with austerity, since it will offset the latter's contractionary effects discussed in section 3. On the other hand, if devaluation causes contraction, teaming it with fiscal restraint may lead to extreme output loss -- the "overkill" for which orthodox programs are often criticized. Cool consideration of such possibilities makes sense before stabilization is attempted.

Fifth, fiscal measures may substitute for other policies. Devaluation stimulates exports, but so do favorable producer prices and/or subsidies. The latter, directed interventions do not share devaluation's unpleasant economy-wide effects (price inflation via increased intermediate import costs, political visibility, possible output contraction) and may well be the preferred option for that reason.

Finally, the fiscal position will influence private actions in external capital markets. Restrictive policy makes repatriation of flight capital or emigrant remittances more likely by bidding up interest rates. On the other hand, financial incentives alone are not likely to draw external resources toward

a stagnant economy. Growth or a semblance of growth (recall Chile's fragile boom of the late 1970's) are much stronger stimuli than high local interest rates for forex inflows. Once the money has arrived, sensible exchange controls (as opposed to market deregulation) can play some role in keeping it home. Brazil, Colombia, and South Korea are the main capital control success cases in the WIDER sample. They avoided the capital flights that plagued economies with open capital markets such as Argentina, Mexico, and the Philippines.

References

Diaz-Alejandro, Carlos F. (1981) "Southern Cone Stabilization Plans," in William Cline and Sidney Weintraub (eds.) Economic Stabilization in Developing Countries, Washington, D.C.: Brookings Institution

Fisher, Irving (1933) "The Debt-Deflation Theory of Great Depressions," Econometrica, 1: 337-357

Hicks, John (1965) Capital and Growth, Oxford: Clarendon Press

Krugman, Paul, and Lance Taylor (1978) "Contractionary Effects of Devaluation," Journal of International Economics, 8: 445-456

O'Connor, James (1973) The Fiscal Crisis of the State, New York: St. Martin's

Schumpeter, Josef (1954) "The Crisis of the Tax State" (orig. 1918), International Economic Papers, 4: 5-38

Sen, Amartya K. (1981) Poverty and Famines, Oxford: Clarendon Press

Tamzi, Vito (1977) "Inflation, Lags in Collection, and the Real Value of Tax Revenues," International Monetary Fund Staff Papers, 24: 154-167

Taylor, Lance (1988) Varieties of Stabilization Experience, Oxford: Clarendon Press

PPR Working Paper Series

	Title	Author	Date	Contact
WPS13	Objectives and Methods of a World Health Survey	Trudy Harpham Ian Timaeus	June 1988	A. Menciano 33612
WPS14	The Optimal Currency Composition of External Debt	Stijn Claessens	June 1988	S. Bertelsmeier 33768
WPS15	Stimulating Agricultural Growth and Rural Development in Sub-Saharan Africa	Vijay S. Vyas Dennis Casley	June 1988	H. Vallanasco 37591
WPS16	Antidumping Laws and Developing Countries	Patrick Messerlin	June 1988	S. Torrijos 33709
WPS17	Economic Development and the Debt Crisis	Stanley Fischer	June 1988	C. Papik 33792
WPS18	China's Vocational and Technical Training	Harold Noah John Middleton	June 1988	W. Ketema 33651
WPS19	Cote d'Ivoire's Vocational and Technical Education	Christiaan Grootaert	June 1988	R. Vartanian 34678
WPS20	Imports and Growth in Africa	Ramon Lopez Vinod Thomas	June 1988	61679
WPS21	Effects of European VERs on Japanese Autos	Jaime de Melo Patrick Messerlin	June 1988	S. Fallon 61680
WPS22	Methodological Problems in Cross-Country Analyses of Economic Growth	Jean-Paul Azam Patrick Guillaumont Sylviane Guillaumont	June 1988	E. Zamora 33706
WPS23	Cost-Effective Integration of Immunization and Basic Health Services in Developing Countries: The Problem of Joint Costs	A. Mead Over, Jr.	July 1988	N. Jose 33688

PPR Working Paper Series

	Title	Author	Date	Contact
WPS24	World Bank Investments in Vocational Education and Training	John Middleton Tarsi Donsky	July 1988	W. Ketema 33651
WPS25	A Comparison of Alternative Training Modes for Youth in Israel: Results from Longitudinal Data	Adrian Ziderman	July 1988	W. Ketema 33651
WPS26	Changing Patterns in Vocational Education	John Middleton	July 1988	W. Ketema 33651
WPS27	Family Background and Student Achievement	Marlaine E. Lockheed Bruce Fuller Ronald Nyirongo	July 1988	R. Rinaldi 33278
WPS28	Temporary Windfalls and Compensation Arrangements	Bela Balassa	June 1988	N. Campbell 33769
WPS29	The Relative Effectiveness of Single-Sex and Coeducational Schools in Thailand	Emmanuel Jimenez Marlaine E. Lockheed	August 1988	T. Hawkins 33678
WPS30	The Adding Up Problem	Bela Balassa	July 1988	N. Campbell 33769
WPS31	Public Finance and Economic Development	Bela Balassa	August 1988	N. Campbell 33769
WPS32	Municipal Development Funds and Intermediaries	Kenneth Gavey	July 1988	R. Blade-Charo 33754
WPS33	Fiscal Policy in Commodity-Exporting LDCs	John Cuddington	July 1988	R. Blade-Charo 33754
WPS34	Fiscal Issues in Macroeconomic Stabilization	Lance Taylor	September 1988	R. Blade-Charo 33754
WPS35	Improving the Allocation and Management of Public Spending	Stephen Lister	August 1988	R. Blade-Charo 33754