



**CEPAL**  
**Comisión Económica para América Latina y El Caribe**

**XIII SEMINARIO REGIONAL DE POLITICA FISCAL**

Organizado por CEPAL  
Con el copatrocinio del FMI, Banco Mundial y BID  
y el auspicio del Ministerio de Hacienda de Chile

Santiago de Chile, 22 al 24 de enero del 2001

**XIII SEMINARIO REGIONAL DE POLITICA FISCAL**

**COMPENDIO DE DOCUMENTOS**

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## **XIII SEMINARIO REGIONAL DE POLITICA FISCAL**

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El programa del XII Seminario Regional de Política Fiscal refleja los criterios que tradicionalmente han presidido la selección y tratamiento de temas en anteriores ediciones de este foro anual:

- i) propiciar una visión conceptual amplia respecto al contenido y gama de problemas por considerar en la formulación, diseño e implementación de la política fiscal, como también en la coordinación y armonización de esta última con las demás políticas macroeconómicas, en particular con la política monetaria y de administración de la deuda pública
- ii) focalizar en el examen de problemas, diagnósticos y soluciones referidas al campo fiscal de las economías de América Latina y el Caribe, comparando experiencias internacionales, identificando mejores prácticas y destacando los límites que las especificidades propias de cada realidad imponen a la transferencia de enseñanzas de terceros países
- iii) promover el uso de diferentes perspectivas de análisis --macroeconómico, microeconómico o institucional de manera flexible, según el caso-- a fin de orientar el proceso de diagnóstico, análisis y toma de decisiones gubernamentales respecto a las funciones de asignación de recursos, estabilización, distribución y crecimiento económico

Tal amplitud de miras necesariamente exige que el Programa del Seminario abrigue una amplia gama de tópicos, como, también, que estos puedan ser tratados mediante enfoques teóricos diversos y por capacidades tecnico-profesionales no menos variadas. De la libre competencia de ideas en todos los planos se espera surjan las luces que mejor podrán orientar la toma de decisiones gubernamentales en el plano fiscal de cada país de nuestra región respecto a las convencionales funciones de asignación de recursos, estabilización, distribución y crecimiento económico que son responsabilidad del sector gobierno.

acompañada por mayores niveles de exigibilidad de responsabilidades y resultados; evaluar los objetivos de los fondos de estabilización (generales y específicos) y su coordinación con el resto de las reglas fiscales y monetarias; analizar la consistencia interna de diversas reglas adoptadas por un mismo país y la efectiva contribución de éstas a una adecuada coordinación y gestión macroeconómica que lleve en consideración la cobertura de riesgos fiscales y la sostenibilidad intertemporal de las políticas.

## Sesión 2

### La Política Fiscal, Monetaria y Cambiaria en los programas de estabilidad y crecimiento del área del *euro*: implicaciones y lecciones para la integración regional en América Latina y el Caribe

#### Antecedentes

La creación y entrada en operación del *euro*, a partir del 1 de enero de 1999, fue un evento de profundo significado para el futuro de los mercados económico-financieros internacionales y, muy probablemente también para nuestra región. Esto último en razón de los estrechos lazos comerciales, productivos y financieros que América Latina y el Caribe mantienen con Europa. Al mismo tiempo, el complejo y largo proceso de discusiones técnicas y políticas que condujo a la creación del *euro* representa una experiencia capaz de iluminar numerosos aspectos de las discusiones en torno de procesos de integración subregional como el Mercosur, Pacto Andino, Mercado Común Centroamericano, Caricom, y Alca.

Es por cierto prematuro tratar de alcanzar conclusiones respecto a los probables efectos directos e indirectos que la creación del *euro* puedan llegar a tener sobre los mercados y economías de nuestra región. En realidad, el principal impacto de la creación de la moneda europea única deberá sentirse en los propios países de la zona *euro*, aunque cabe esperar que otros países --con enlaces comerciales o financieros con Europa-- también sientan sus efectos. Dicha influencia dependerá de la capacidad del *euro* --medio y largo plazo-- para ganar espacio en las transacciones internacionales, lo que en gran medida será función del éxito de la política monetaria del Banco Central Europeo y del cumplimiento de las metas fiscales adoptadas en los programas de estabilidad y convergencia conocidos como Pacto de Estabilidad y Crecimiento. En el corto plazo, sin embargo, las vicisitudes del *euro* durante sus primeros dos años de vida, en términos de volatilidad y tendencia, pueden generar aprehensión en las economías de nuestra región por la considerable vulnerabilidad de éstas a choques externos. De hecho, tal condición aumentó sensiblemente durante los últimos años, en parte, debido a las reformas estructurales iniciadas por la mayoría de los países de la región después de la crisis de la deuda en 1982 (ej. reforma arancelaria, desregulación bancaria, liberalización financiera y privatizaciones), y en parte también, debido a la creciente movilidad de los capitales internacionales. La combinación de ambos factores viene limitando los grados de libertad de las autoridades económicas domésticas para diseñar sus políticas y usar instrumentos de asignación, distribución y estabilización macro-económica. Así es que ante una reducción en el grado de autonomía de las autoridades económicas, los resultados de su gestión dependen cada vez más de la coyuntura internacional

Por otro lado, el largo proceso recorrido por las economías europeas antes de converger hacia una moneda común es una experiencia única en la historia económica contemporánea. A lo largo de un proceso de creciente apertura comercial y de liberalización de los movimientos de capital, el *euro* representa la culminación de un proceso que se inició con tentativas de coordinación de las políticas cambiarias en respuesta a crisis externas y abarcó la compatibilización de las políticas monetarias, armonización tributaria y convergencia de las metas fiscales. Este proceso ha sido marcado por numerosas dificultades técnicas y problemas institucionales que los técnicos y políticos de los países miembros debieron enfrentar y resolver. Esta experiencia conforma un valioso acervo de conocimientos y prácticas

nacionales, es la legislación referente a precios de transferencia. En los últimos 5 años, cuatro países latinoamericanos han introducido normativas respecto a esta materia, las que merecen una comparación con las directivas establecidas a este respecto por la OCDE. Finalmente, es relevante analizar y discutir las últimas definiciones y decisiones de la OCDE para la determinación de paraísos fiscales y regímenes tributarios preferenciales dañinos, la forma de combatirlos y restringir su expansión. Este movimiento hacia acciones multilaterales abre una fuerte interrogante sobre las diferentes posibilidades de institucionalizar la cooperación internacional a nivel de política y administración tributaria así como de los instrumentos apropiados para la determinación de cuando la competencia tributaria internacional es desleal y los mecanismos para restringirla.

### Posibles focos de discusión

Son las normas y los mecanismos propuestos por la OCDE apropiados para la asignación de rentas entre diferentes jurisdicciones y su implementación práctica? Cuáles son los criterios objetivos para definir un régimen tributario preferencial como dañino o desleal y cuáles son las formas para restringirlos considerando otros tipos de tratos preferenciales, como ser, comerciales o financieros? En caso de ser pertinente a los efectos de controlar la competencia tributaria internacional desleal, es viable una organización mundial impositiva con fines de cooperación administrativa y coordinación de política tributaria?

## Sesión 4

### Incentivos fiscales y competitividad:

### experiencia y perspectivas para América Latina y el Caribe en una era de crecientes conflictos económico-comerciales internacionales

### Antecedentes

En los últimos seis años, los conflictos económico-comerciales entre gobiernos nacionales experimentaron una ostensible escalada. Ello puede ser atribuido, en primer lugar, a una baja relación costo/beneficio del mecanismo para solución de controversias incorporado a la nueva institucionalidad de la OMC, y en segundo lugar, a la ampliación aprobada durante la ronda Uruguay de las áreas en que un país puede iniciar pedidos de consulta o bien, la formación de un panel (dichas nuevas áreas incluyen agricultura, textiles y vestimentas, derechos de propiedad intelectual vinculados al comercio, servicios, estándares técnicos, y barreras no arancelarias, entre otras). Si a lo anterior se agrega que la llamada Agenda del Milenio, a ser negociada en algún momento aun indefinido, contiene una lista de temas políticamente muy complejos (como las relaciones entre comercio y medio ambiente, normas laborales, inversión extranjera directa, regulación de competencia, procedimientos, y comercio electrónico), no parece aventurado anticipar que el mencionado actual grado de conflictividad comercial corre serios riesgos de acentuarse en los próximos años.

El punto de partida y preocupación subyacente de esta sesión es, precisamente, la conexión de este último escenario con los grados de libertad que a futuro podrán tener las autoridades domésticas de la región para diseñar su política fiscal. Esto se coloca en virtud de que los conflictos comerciales entre naciones, a pesar de sus múltiples posibles causas, parece que se vinculan cada vez más frecuentemente al manejo que los gobiernos hacen de la capacidad que tienen para aplicar impuestos y conceder subsidios, quiera sea a través del mecanismo directo y explícito de la política presupuestaria, o bien, a través de instrumentos que actúan de manera indirecta o implícita, pero que tienen efectos equivalentes a los anteriores y que son propios de la política cuasi-fiscal.

variantes más sofisticadas llegar a incluir complejas y dinámicas interacciones entre agentes públicos y privados), al que se vinculan conceptos tales como e-democracia, e-ciudadanía, e-gobernabilidad, entre otros.

Los objetivos del *e-gobierno* son múltiples y corresponden a diversas dimensiones. Entre ellos cabe destacar: (i) reducir costos fijos y variables en la producción y provisión de bienes públicos; (ii) disminuir variados costos de transacción enfrentados por las personas físicas (en cuanto ciudadanos con derechos y obligaciones políticas; consumidores de bienes y servicios privados sujetos a regulación pública; beneficiarios de programas de transferencias o subsidios gubernamentales; consumidores de bienes y servicios públicos; clientes de diversas agencias estatales; funcionarios públicos; etc.) y por las empresas (en cuanto proveedoras de bienes y servicios privados al sector gobierno; consumidoras de bienes y servicios públicos; agentes regulados por agencias del Estado; constructoras y/u operadoras de obras de infraestructura; contribuyentes; etc.); (iii) simplificar procesos y procedimientos internos en agencias estatales pertenecientes a diferentes niveles de gobierno; (iv) promover una mayor cooperación y mejor coordinación inter-gubernamental con miras a elevar la eficiencia, eficacia, productividad y calidad de la gestión de los programas de recaudación, transferencia y gasto público; (v) aumentar la transparencia de las instituciones y políticas públicas, así como elevar la responsabilidad de las clases tecno-burocrática y política del Estado, con base en la evaluación de los resultados de su gestión; (vi) universalizar y democratizar el acceso ciudadano a todo tipo de información y conocimiento, contribuyendo a un mayor consumo de tales bienes públicos globales, con el propósito estratégico de facilitar la socialización, inclusión y participación ciudadana en procesos de elección colectiva cuyas decisiones afectan los intereses y destinos de la comunidad; (vii) construir e implantar un nuevo paradigma cultural de funcionamiento del sector público, donde las relaciones entre éste y la sociedad civil se apoyan crecientemente en las posibilidades ofrecidas por las TI, y donde las tareas de modernización y reforma del Estado.

#### Posibles focos de discusión

Revisión de experiencias nacionales de G2G (operaciones intra o entre-agencias de uno o más niveles de gobierno); G2P (operaciones entre agencias de cualquier nivel de gobierno y sus proveedores en sentido lato); G2C (operaciones entre agencias gubernamentales y ciudadanos en sentido lato); costos y beneficios; avances y resultados alcanzados; principales dificultades a superar [ausencia de una política de Estado; insuficiente volumen de recursos materiales, financieros y humanos; disparidad de acceso; insuficiente convergencia e integración de redes informáticas; inadecuación de marcos legal y regulatorio; actitudes y comportamientos]; aspectos comunes y específicos del e-gobierno en países con organización política federal o unitaria; posible futuro del e-gobierno en los países de la región.



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**DISERTACION INAUGURAL**

**DEVELOPING COUNTRIES' ANTI-CYCLICAL POLICIES  
IN A GLOBALIZED WORLD**

By  
**José Antonio Ocampo \***

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\* / Executive Secretary, United Nations Economic Commission for Latin America and the Caribbean (CEPAL/ECLAC). I am grateful to Ricardo Ffrench-Davis, Gerry Helleiner, Daniel Heyman, Manuel Marfán, Jaime Ros and Leonardo Villar for comments to a previous draft of this paper. I am also helpful to María Angela Parra and Guillermo Mundt for assistance.



The volatility and contagion characteristic of international financial markets, which have dominated emerging economies during the 1990s, have long historical roots.<sup>1</sup> Indeed, from the mid-1970s to the end of the 1980s, Latin America and other regions in the developing world experienced a long boom-bust cycle, the most severe of its kind since that of the 1920s and 1930s. The shortening but also the intensity of boom-bust cycles have been distinctive features of the recent decade. The latter is reflected, in the words of the Chairman of the Federal Reserve Board, in the fact that the "size of the breakdowns and required official finance to counter them is of a different order of magnitude than in the past".<sup>2</sup>

Viewed from the perspective of developing countries, the essential feature of instability is the succession of periods of intense capital inflows, in which financial risks significantly increase, facilitated and sometimes enhanced by pro-cyclical domestic macroeconomic policies, and the latter phase of adjustment, in which not only are these risks exposed but also the pro-cyclical character of the measures adopted to "restore confidence" amplify the flow (economic activity) and stock (portfolio) effects of adjustment processes. An essential part of the solutions to these problems lies in strengthening the institutional framework to prevent and manage financial crises at the global level.<sup>3</sup> This paper looks, however, at the role of developing countries' domestic policies in managing the pro-cyclical effects of externally generated boom-bust cycles. It draws from an extensive recent literature on the subject<sup>4</sup> and from the experience of Latin America in the 1990s.<sup>5</sup> It is divided in seven sections. The first two look at the international asymmetries that lie behind and the specific macroeconomics of boom-bust cycles in the developing world. The following sections look at the exchange rate regime, liability policies, prudential regulation and supervision, and fiscal stabilization. The final section draws some conclusions.

## I. INTERNATIONAL MACROECONOMIC AND FINANCIAL ASYMMETRIES

The dynamics of boom-bust cycles is deeply rooted in the operation of financial markets, a point that has been extensively recognized in the literature, but also in some basic asymmetries which characterize the world economy. These asymmetries have largely (though not exclusively) center-periphery dimensions. The first of them is basically macroeconomic. Put succinctly, whereas the center economies—particularly the largest economies among them—are "business cycle makers", the developing countries (the "periphery", in this simple framework) are "business cycle takers". This reflects the fact that, broadly speaking, the center generates the global shocks (in terms of economic activity, financial flows, commodity prices and the instability of the exchange rate of major currencies), to which developing countries respond.

This asymmetry is closely associated to the fact that the center economies' national currencies (now regional in the case of most members of the European Union) are also international currencies. This gives them some degrees of freedom in terms of the use of national monetary policies to manage domestic business cycles, although certainly at the possible cost of exchange rate fluctuations in the current world of floating exchange rates among major currencies; the degrees of freedom are obviously greater for the country that has the major international currency (the United States) and more limited for the rest of the industrialized economies. Through the effects of monetary policies on economic activity and the exchange rates, the center economies generate externalities to the rest of the world that are not internalized by policy

<sup>1</sup> See, for example, in relation to Latin America, Bacha and Díaz-Alejandro (1982).

<sup>2</sup> Greenspan (1998).

<sup>3</sup> There is an extensive literature on these issues. See, for example, Eatwell and Taylor (2000), Eichengreen (1999) and Ocampo (1999a, 1999b).

<sup>4</sup> Among the many recent contributions to the analysis of this issue, see CEPAL/ECLAC (1998a, Part Three; 2000a, Ch. 8), Ffrench-Davis (1999), Furman and Stiglitz (1998), Helleiner (1997), Ocampo (1999b, ch. 5) and World Bank (1998), chapter 3.

<sup>5</sup> Latin America's experience is regularly analyzed in ECLAC's economic surveys. See, for example, CEPAL/ECLAC (1999) on the effects of the Asian crisis.

thinness of domestic financial (particularly security) markets, which reduces the liquidity of financial instruments. Viewed as a whole, this implies that domestic financial markets in the developing world are significantly more "incomplete" than international financial markets, indicating that some financial intermediation must necessarily be done through international markets. It also implies that integration into international financial markets is integration between unequal partners.<sup>8</sup>

The associated risks can only be partly covered (e.g., currency risks of large non-financial intermediaries<sup>9</sup>) or partly corrected by domestic policy actions. Indeed, some of the policy actions that emerging economies can adopt to prevent risks merely reflect (or reproduce) rather than correct the basic asymmetries in financial systems. For example, domestic financial risks in the developing world have a large macroeconomic component, particularly those associated to fluctuations of exchange and interest rates. This could be managed by adopting stronger prudential regulations of domestic financial activities than minimum international (Basle) standards (see Section V below). However, this raises the costs of financial intermediation and probably restricts the development of new financial services, thus shifting financial asymmetries to another level, indeed increasing the incentives to use international financial intermediation. The same can be said of moving to a currency board regime or giving up the national currency altogether. While these moves certainly reduce or eliminate currency risks, they may merely shift the underlying risks to other areas. Particularly, they could make economic activity more volatile, given the additional restrictions on the adoption of anti-cyclical policies. We will return to this in Section III below. In a very deep sense, developing countries face country rather than currency risks; the latter are, in a sense, a mere manifestation of the former, which under certain conditions can generate additional difficulties (an overvalued exchange rate in an adjustable peg system, or outright monetary and financial mismanagement).

## II. THE MACROECONOMICS OF BOOM-BUST CYCLES

The association between capital flows—and, more particularly, the net resource transfer—and economic growth has been a strong feature of Latin America in the 1990s (and, for that matter, of the past quarter century), as the panel A in Figure 1 indicates. This fact highlights the central role played by the mechanisms by which externally-generated boom-bust cycles are transmitted in the "business cycle/policy taking" countries.

These mechanisms are well known. The boom encourages an increase in public and private spending, which will inevitably lead to an adjustment whose severity will bear a direct relationship to how excessive spending levels were, as reflected in accumulated liabilities, and to the degree of mistrust generated among market agents. Thus, temporary public sector revenues and readily accessible external credit during booms generate an expansion of public sector spending, which will be followed by a severe adjustment later on, when those conditions are no longer present. A private lending cycle is generated by shifts in the availability of external financing and the cyclical patterns of international interest rates and spreads; availability and spreads are associated, in turn, to significant asymmetries in risk evaluation during booms and crises. Private-sector debt overhangs accumulated during the boom will subsequently trigger a sharp contraction in lending, usually accompanied by deterioration in bank portfolios.

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<sup>8</sup>/ CEPAL/ ECLAC (2000a, ch. 8); Studart (1996). Hausemann's (2000) concept of "original sin" captures the second and third of these asymmetries.

<sup>9</sup>/ The coverage should be provided by private financial agents, and it is likely to be limited. The government or the central bank can also provide some of the coverage, and indeed may help to develop a market for such risk-management instruments. However, they could merely "socialize" the macroeconomic risks involved, potentially increasing the corresponding fiscal and quasi-fiscal costs (see Section VI below).

buyers are more readily available and thus financial decisions are more easily reversible without incurring in substantial losses-- and, on the contrary, their reduced liquidity during crises. The use of assets as collateral will facilitate the boom in private spending and borrowing, but it will then increase the vulnerability of the financial system during the subsequent downswing, when it becomes clear that the loans did not have enough backing. Asset prices will then plunge even further as debtors strive to cover their financial obligations and creditors seek to liquidate the assets received in payment for outstanding debts.

Capital account booms --as well as high export prices--will also induce an exchange rate appreciation, and strong pressures on exchange rate and interest rates during the ensuing busts. Exchange rate fluctuations have, in turn, significant wealth effects in countries with large net external liabilities. The capital gains generated by appreciation during booms further fuels the spending boom, whereas the capital losses generated by depreciation have the opposite effect and may weaken domestic financial intermediaries. This is true even if prudential regulations forbid them from holding currency mismatches in their portfolio, as the capital losses incurred by non-financial firms with mixed external and domestic liabilities transforms the currency risks of the former into domestic financial risks. Thus, the wealth effects of exchange rate variations are certainly pro-cyclical in debtor countries. The income effects may have similar signs, at least in the short run, as the extensive literature on the contractionary effects of devaluation indicates.<sup>10</sup>

The associated macroeconomic volatility is costly in both economic and social terms. In economic terms, it increases uncertainty, reduces the efficiency of fixed capital investment and leads economic agents to prefer "defensive" microeconomic strategies that avoid committing fixed capital in the production process. For all of these reasons, it discourages investment. The higher risk levels faced by domestic financial system biases lending to shorter maturities, reducing its ability to intermediate the savings-investment process and generating a lending structure that increases risks (see Section IV). If severe enough, the domestic financial crisis will generate losses that amount to the equivalent of large proportions of GDP. Exchange rate appreciation during booms may generate, in turn, "Dutch disease" effects on tradable sectors, which become permanent if significant learning processes are present.<sup>11</sup>

In social terms, there is growing evidence in Latin America of ratchet effects of employment and poverty (and probably income distribution) through the business cycle.<sup>12</sup> This is associated to permanent losses in human capital during crises: children who leave school and never return, workers who lose labor experience and connections as a result of un- or underemployment, small-sized firms that lose their assets and goodwill, etc. The recovery that follows may benefit other persons and firms than those who experienced difficulties during the crisis, thus generating permanent losses for the latter. There may also be ratchet effects on the quality of public sector services as the result of cycles in spending. Thus, for example, the loss of human capital and morale and growing disorganization of services during the Latin American debt crisis of the 1980s was not entirely reversed by recovery in the 1990s.

The most important policy implication of the high costs of externally-generated boom-bust cycles is that the developing country authorities need to focus their attention on crisis prevention, i.e., on

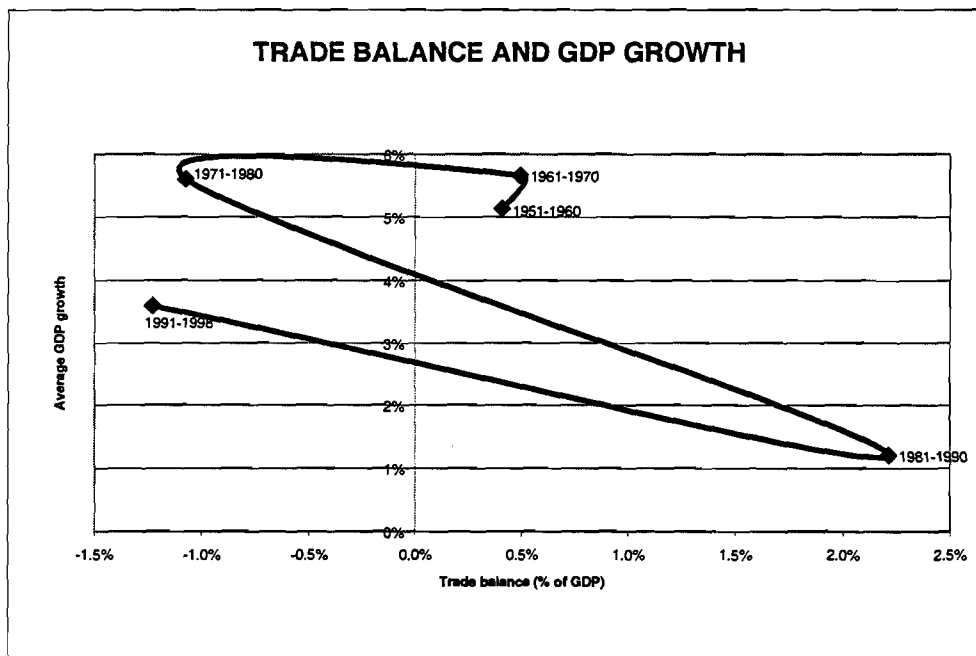
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<sup>10/</sup> See, in particular, Cooper (1971), Díaz-Alejandro (1988, ch. 1) and Krugman and Taylor (1978) for classic analyses of this topic.

<sup>11/</sup> This is a characteristic of "Dutch disease" effects in their dynamic version. See Krugman (1990, ch. 7) and van Wijnbergen (1984).

<sup>12/</sup> The aggregate unemployment rate of Latin America (and of several individual countries) shows such a pattern: a sharp increase during the "Tequila" crisis that had not been entirely reversed when the Asian crises hit and increased it again. The evolution of poverty in the region over the past two decades shows the same pattern: an increase in the 1980s that was not entirely reversed in the 1990s, despite the fact that by the end of decade per-capita GDP was above the 1980 level. The patterns of poverty in Argentina and Mexico through crisis and recovery show a similar performance, as reflected in the fact that by 1997 and 1998 poverty was not back to 1994 levels. See CEPAL/ECLAC (2000a, ch. 8; 2000b, ch. 1) and Lustig (1999).

Figure 2



The second is a demand for flexibility. It also comes from both the trade and the capital account. On the trade side, exchange rate flexibility has been traditionally seen as a useful instrument to accelerate real exchange rate adjustments in the face of external shocks (terms of trade changes, exchange rate adjustments or growth trade of major trading partners, etc.). Also, boom-bust cycles in international capital markets generate a demand for flexible macroeconomic variables to absorb, in the short run, the positive and negative shocks they generate. Given the reduced effectiveness of some traditional policy instruments in open economies—particularly monetary policy—the exchange rate plays an essential role in helping to absorb such shocks. This demand for flexibility explains the fairly broad trends towards greater exchange rate flexibility that characterizes the world economy since the breakdown of the dollar standard in the early 1970s. The Argentinean and Ecuadorean cases aside, this has also been the trend in Latin America in the 1990s and was particularly noticeable during the recent Asian crisis.

The relevance of these conflicting demands is not captured in the call by many analysts to adopt either of the two polar exchange rate regimes, either a totally flexible exchange rate or a currency board (or outright dollarization). Indeed, the case for polar regimes is a call to recognize that policy autonomy is quite limited in today's world and, thus, that any attempt to manage the conflicting demands on exchange rate policy should be given up. The "revealed preference" of authorities in the developing world is, on the contrary, to choose intermediate regimes of managed exchange rate flexibility (such as crawling pegs and bands, and dirty flotation), in an attempt to reconcile these conflicting demands.<sup>16</sup>

Currency boards certainly introduce built-in institutional arrangements that provide for fiscal and monetary discipline, but they reduce and, in the limit, eliminate the room for stabilizing monetary and credit policies—both of them necessary to prevent crises and to facilitate recovery in a post-crisis

<sup>16/</sup> For recent defenses of intermediate regimes, see CEPAL/ECLAC (2000a), ch. 8, Frankel (1999) and Williamson (2000). For an interesting review of the recent controversy on exchange rate regimes, see Velasco (2000).

regulations to avoid capital outflows. To avoid credibility issues and guarantee effectiveness, the basic mechanisms of capital account regulation should be in place throughout the business cycle, and should be tightened or loosened depending on the phase of the cycle (see Section IV below).

Other features may support the choice of intermediate regimes, particularly in the smaller developing countries. First of all, the "law of one price" does not hold even in fairly small economies, as reflected in the fact that real exchange rate variability is only weakly dependent on the size of the economies, despite the greater relative weight of foreign trade in the smaller economies.<sup>18</sup> Secondly, the strong dependence of these economies on foreign trade makes profitability in a broader range of economic activities dependent on the real exchange rate. Thirdly, the stronger dependence of public-sector finances in these economies on external factors limits the room for anti-cyclical fiscal policies. Finally, the thinness of exchange rate markets make them subject to stronger volatility under free floating, and the thinness of domestic capital markets limits the chances for sterilized monetary operations. Thus, some exchange rate flexibility is useful (first feature) and may be a necessary anti-cyclical instrument (second and third features), but the thinness of markets eliminates the usefulness of free floating (fourth feature).

Although intermediate regimes thus provide the only framework for anti-cyclical policies in "business cycle/policy taking" countries, and thus some degree of "monetary autonomy", their scope is, in any case, limited. First, it depends on the effectiveness of capital account regulations as a macroeconomic policy tool, a point on which we will return below. Second, all intermediate ("dirty") options are subject to speculative pressures if they do not generate credibility in markets, and the costs of defending exchange rate from pressures is very costly in this context. Third, sterilized reserve accumulation during booms is also costly. Although the additional reserves may provide additional "self-insurance" during the ensuing crises, sterilization may generate significant quasi-fiscal losses.

The usefulness of this approach also depends on effective incentives for the authorities to behave in an anti-cyclical fashion. In this regard, the exclusive focus on inflation rate targeting characteristic of most independent central banks, or the incentives that governments face in post-inflationary environments, may generate strong "appreciation biases" that lead to asymmetric interventions. In particular, given the expected effects of the exchange rate on the price level, devaluation during crises is resisted more than appreciation during booms. Since both features are certainly characteristic of Latin America, it may explain the longer term trend to stronger currencies which characterized the region in the 1990s, which was only temporarily slowed down by the "Tequila" and Asian crises (see Figure 1, Panel B).

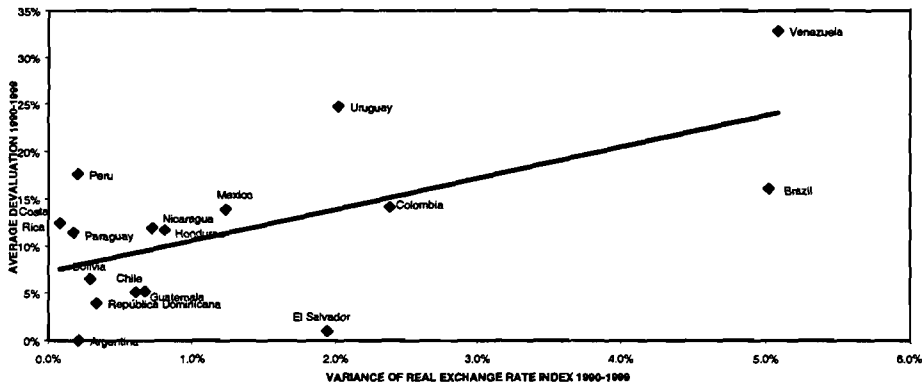
Available Latin American evidence is difficult to evaluate in the light of incomplete evidence on certain regimes (particularly, the absence of sustained clean floats—the closest example being Mexico since the Tequila crisis), frequent regime changes and the aforementioned policy biases. Figure 3 and 4 provide some evidence. Figure 3 indicates that a low degree of real exchange rate volatility has been characteristic of quite different exchange rate histories, including Argentina's currency board but also Costa Rica's crawling peg (cum highly publically-controlled domestic financial sector) and Peru's highly managed float. The highest volatility has been characteristic of Brazil, which tried, unsuccessfully, to defend an overvalued exchange rate inherited from the Real Plan. El Salvador, with a virtual peg, and Colombia, which had through most of the decade a system of exchange rate bands, have also experienced high real exchange rate volatility. On the other hand, there is only weak association between real exchange rate volatility and GDP volatility, and only a weak negative association between the first of these variables and GDP growth. Argentina, under the currency board regime, may be thought as an

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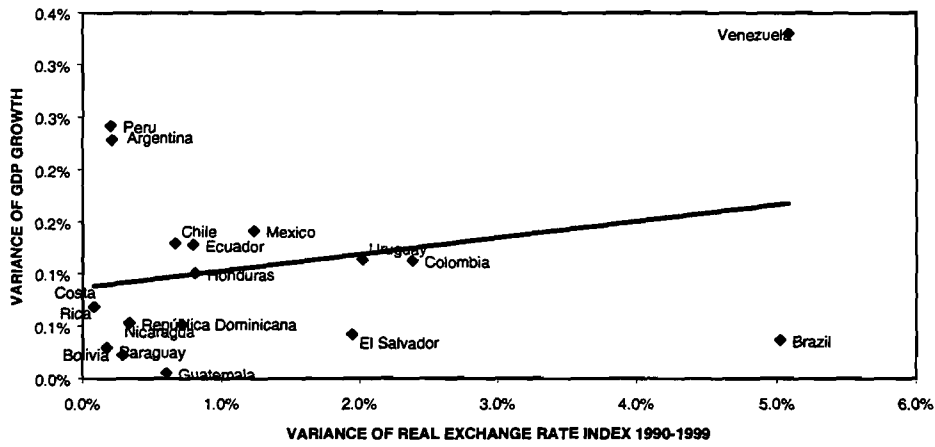
<sup>18</sup>/ See, for Latin America and the Caribbean, CEPAL/ECLAC (2000a, ch. 11).

Figure 3

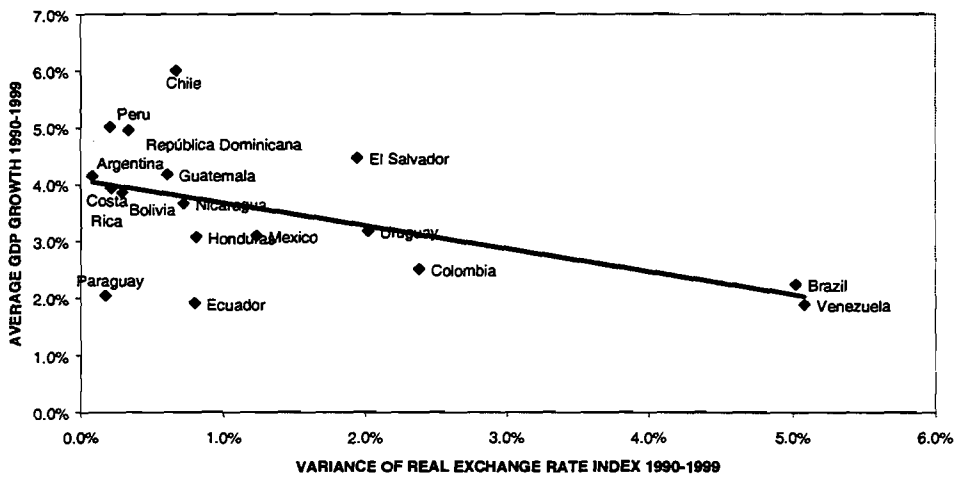
MACROECONOMIC STABILITY:  
A. AVERAGE DEVALUATION 1990-1999 vs.  
VARIANCE OF REAL EXCHANGE RATE INDEX



B. VARIANCE OF GDP GROWTH 1990-1999 vs.  
VARIANCE OF REAL EXCHANGE RATE INDEX 1990-1999



C. AVERAGE GDP GROWTH 1990-1999 vs.  
VARIANCE OF REAL EXCHANGE RATE INDEX 1990-1999



#### IV. LIABILITY POLICIES

The accumulation of risks during booms will depend not only on the magnitude of domestic and private debts but also on their maturity structure. Capital-account regulations thus have a dual role, as a macroeconomic policy tool, which provides some room for anti-cyclical monetary policies, and as a "liability policy", to improve private sector external debt profiles. More direct liability policies should also be adopted to improve public sector debt profiles.<sup>19</sup>

Viewed as a macroeconomic policy tool, capital account regulations are aimed at the direct source of the boom-bust cycles: unstable capital flows. If they are successful, they will provide some room to "lean against the wind" during periods of financial euphoria, through the adoption of a contractionary monetary policy and reduced appreciation pressures. If effective, they will also reduce or eliminate the quasi-fiscal costs of sterilized foreign exchange accumulation. During crisis, they may also provide "breathing space" for expansionary monetary policies.

Viewed as a liability policy, capital account regulations recognize the fact that the market generously rewards sound external debt structures.<sup>20</sup> This is because, during times of uncertainty, the market responds to gross, rather than merely net, financing requirements, which means that the rollover of short-term liabilities is not financially neutral. Under these circumstances, a time profile that leans towards longer-term obligations will considerably reduce the level of risk. This indicates that an essential component of economic policy management during booms should be measures to improve maturity structures, of both the private and the public sector, and both external and domestic liabilities.

The greatest innovation in this sphere made during the 1990s was unquestionably the establishment of reserve requirements for foreign-currency liabilities in Chile and Colombia (see Box 1). The advantage of this system is that it creates a non-discretionary price incentive that penalizes short-term foreign-currency liabilities more heavily. The corresponding levy is significantly higher than the level that has been suggested for an international Tobin tax.<sup>21</sup>

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<sup>19/</sup> The emphasis on liabilities rather than balance sheets here recognizes the fact that they are the most important element of national balance sheet for short-term macroeconomic purposes, together with liquid assets.

<sup>20/</sup> An excellent recent treatment of this issue is Rodrik and Velasco (1999).

<sup>21/</sup> See Tobin (1978) and Eichengreen and Wyplosz (1996).

Alternatively, if higher reserve requirements induce new flows through their effect on interest rates, their ability to affect the latter should be seen as an indication that they are effective as a macroeconomic policy tool. In Colombia, where these regulations have been modified more extensively over the years, there is strong evidence that increases in reserve requirements have reduced flows<sup>24</sup> or, alternatively, have been effective in increasing domestic interest rates.<sup>25</sup>

Some problems in the management of these regulations have been associated with changes in the relevant policy parameters. The difficulties experienced in this connection by the two countries have differed. In Chile, the basic problem has been the variability of the rules pertaining to the exchange rate, since the upper and lower limits of the exchange rate bands (in pesos per dollar) were changed on numerous occasions until abandoned in 1998. During capital account booms, this gave rise to a "safe bet" for agents bringing in capital, since when the exchange rate neared the floor of the band, the probability that the floor would be adjusted downward was high. In Colombia, the main problem has been the frequency of the changes in reserve requirements. Changes foreseen by the market have sparked speculation, thereby diminishing the effectiveness of such measures for some time following the requirements' modification. It is interesting to note that in both countries reserve requirements have been seen as a complement to, rather than as a substitute for, other macroeconomic policies, which have been certainly superior in Chile. In particular, the expansionary and contractionary phases of monetary policy have been much more marked in Colombia, and this country's fiscal position deteriorated through the decade.

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<sup>24</sup>/ Ocampo and Tovar (1999).

<sup>25</sup>/ Villar and Rincón (2000).



The three basic advantages of this regime are its preventive nature, its simplicity and its non-discretionary character. Capital account regulations during booms, which have a preventive character, are certainly preferable to crisis-driven quantitative controls during crises. Indeed, such controls generate serious credibility issues and may be ineffective, as a tradition of regulation and supervision may be necessary to make them operative. Indeed, permanent regulation regimes that are tightened or loosened through the cycle are superior to the alternation of free capital mobility during booms and quantitative restrictions on outflows during crises. However, simple quantitative restrictions that rule out certain forms of indebtedness (e.g., short-term foreign indebtedness, except trade credit lines) may also be simple and preventive in character, and may be simple to administer in underdeveloped regulatory regimes.

These direct regulations on the capital account can be partly substituted by prudential regulation and supervision as an alternative to capital account regulations. In particular, higher liquidity (or reserve) requirements for the financial system's foreign-currency liabilities can be established. Also, the rating of domestic lending to firms with substantial foreign liabilities can be reduced and the provisions associated to such loans increased. The main problem with these options is that they have no effect on the foreign-currency liabilities of non-financial agents and indeed may encourage them to borrow more abroad. Accordingly, it needs to be supplemented with other disincentives for external borrowing by those firms, such as tax provisions applying to foreign-currency liabilities (e.g., allowing only partial deductions for interest payments abroad), public disclosure of the short-term external liabilities of firms and regulations requiring rating agencies to give special weight to this factor.<sup>26</sup>

Price-based capital account regulations may thus be a superior alternative and simpler to administer than an equivalent system based on prudential regulations plus additional policies aimed at non-financial firms. Among its virtues, *vis-à-vis* prudential regulation and supervision, we should also include the fact that it is price-based (some prudential regulations, such as prohibitions on certain types of operations, are not) and non-discretionary (on the contrary, prudential supervision tends to be discretionary in its operation). Indeed, equivalent practices are used by private agents, such as the selling fees imposed by mutual funds on investments held for a short period, in order to discourage short-term holdings.<sup>27</sup>

In the case of the public sector, direct control by the Ministry of Finance (in some cases by the central bank) is the most important liability policy, including control on borrowing by other public-sector agencies and autonomous sub-national governments.<sup>28</sup> Public sector debt profiles that lean too far towards short-term obligations may be manageable during booms, but may become a major destabilizing factor during crises. This remark is equally valid for external and for domestic public sector liabilities. The most straightforward reason for this is that residents holding short-term public sector securities have other options besides rolling over the public sector debt, including capital flight. This is even clearer if foreigners have access to domestic securities.

Thus, when gross borrowing requirements are high, the interest rate will have to rise in order to make debt rollovers attractive. Higher interest rates are also immediately reflected in the budget deficit, thereby rapidly changing the trend in the public-sector debt, as happened in Brazil during the recent crisis (see Figure 6). In addition, rollovers may be viable only if risks of devaluation or future interest rate hikes can be passed on to the government, generating additional sources of destabilization. Mexico's widely publicized move to replace in 1994 peso-denominated securities (Treasury Certificates or Cetes) by dollar-denominated bonds (Tesobonos), which was one of the crucial factors in the crisis that hit the country late in that year, was no doubt facilitated by the short-term profile of Cetes.<sup>29</sup> The short-term structure of Brazil's debt is also the

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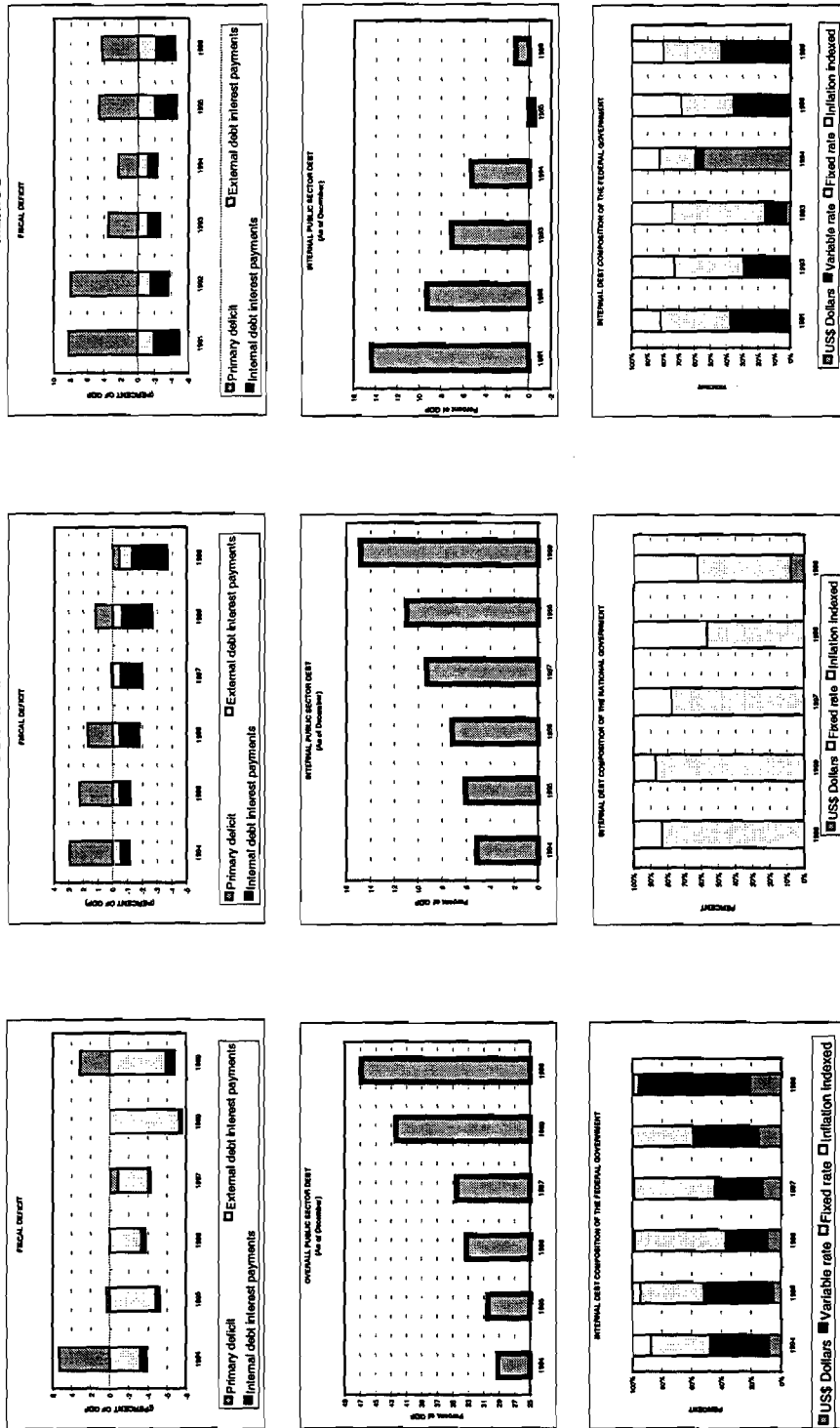
<sup>26</sup>/ For an analysis of this issue, see World Bank (1998), p. 151.

<sup>27</sup>/ J.P. Morgan (1998), p. 23.

<sup>28</sup>/ CEPAL/ECLAC (1998b), chapter VIII.

<sup>29</sup>/ See Sachs, Tornell and Velasco (1996) and Ros (2000).

Figure 6  
FISCAL DEFICIT AND PUBLIC DEBT  
COLOMBIA



35% of GDP or more in full-blown crises, such as those that engulfed Argentina and Chile in the early 1980s or Indonesia in the late 1990s. Thus, one of the best fiscal investments that a country can make is to avoid a financial crisis. This means that the private risks assumed by financial intermediaries during economic booms incorporate a substantial component of public sector risk. This fact constitutes a powerful argument for intervening in financial systems in order to prevent the build-up of excessive risks during booms.

The origins of problems that erupt during financial crises are well known. Generally, they are the result of a rapid increase in lending and weak prudential regulation and supervision, a combination that becomes explosive under conditions of financial liberalization in the midst of an external capital boom. The underestimation of risks characteristic of environments of economic optimism is then mixed with inadequate practices for evaluating risks, both by private agents and by supervisory agencies.

This underscores just how important the sequencing of financial liberalization processes is and, in particular, how necessary it is to make such liberalization contingent upon the prior establishment of appropriate prudential regulation and supervision and the design of satisfactory information systems to guarantee a proper microeconomic operation of markets. As the learning process —by financial intermediaries, depositors and the authorities— is not instantaneous, the liberalization process needs to be gradual to guarantee that financial intermediaries have the time they need to learn to manage higher risks, depositors to learn how to use the new information channels, and the authorities to learn how to supervise the system more strictly and how to modify prudential regulations and reporting requirements on the basis of accumulated experience.

Prudential regulation should ensure, first of all, the solvency of financial institutions by establishing appropriate capital adequacy ratios relative to the risk assumed by lending institutions, strict write-offs of questionable portfolios and adequate standards of risk diversification. In developing countries, the corresponding regulations should take into account not only microeconomic, but particularly macroeconomic risks they face. In particular, due attention needs to be paid to the links between domestic financial risks and variations in interest and exchange rates. Due to the greater financial volatility that characterizes these countries, capital standards should probably be higher than those proposed by the Basle Committee on Banking Supervision of the Bank for International Settlements. On the other hand, strict regulations should be established to prevent currency mismatches (including those associated with hedging and related operations), to reduce imbalances in the maturities of assets and liabilities of financial intermediaries and the timely write-off of due loans.<sup>31</sup> Prudential regulation should be particularly strict with respect to the intermediation of short-term external credits.

In addition, prudential regulation needs to ensure adequate levels of liquidity for financial intermediaries, so that they can handle the mismatch between average maturities of assets and liabilities associated to the financial system's essential function of "transforming maturities", which generates risks associated to volatility in deposits and/or interest rates. This underscores the fact that liquidity and solvency problems among financial intermediaries are far more interrelated than traditionally assumed, particularly in the face of macroeconomic shocks. Reserve requirements, which are strictly an instrument of monetary policy, provide the liquidity in many countries, but their declining importance makes it necessary to find new tools. What is more, their traditional structure is not geared to the specific objective of ensuring financial intermediaries' liquidity. The most important innovation on this area is undoubtedly the Argentine system created in 1995, which sets liquidity requirements based on the residual maturity of financial institutions' liabilities (i.e., the number of days remaining before reaching

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<sup>31</sup> For an interesting analysis of the problems created by these mismatches and their effects during recent crises, see Perry and Lederman (1998).

execute than planned, thereby raising their effective cost; the existing structure for the provision of public and social services became disjointed; reductions in real wages and job cuts created tension and difficulties with trade unions and with public-sector employees in general; valuable staff were lost and the entire civil service was disrupted. The significant costs associated with these events continued to burden Latin American countries in the 1990s, owing to the difficulty of rebuilding the State apparatuses.

The painful lesson learned by Latin America during the debt crisis was thus that the lack of fiscal discipline during booms is extremely costly. A greater degree of fiscal discipline was thus maintained throughout the 1990s, though a moderate increase in budget deficits characterized the recent crisis, and some countries (Brazil and Colombia, in particular) have faced severe fiscal problems.

Nonetheless, the return to a more orthodox policy stance has entailed the continued implementation of unmistakably pro-cyclical fiscal practices.<sup>33</sup> This is attributable to the tendency for public revenues to behave pro-cyclically—a characteristic that, far from having been mitigated, may have increased with structural reforms.<sup>34</sup> Under these conditions, setting fiscal targets independently of the business cycle implies that spending during booms is partly financed by temporary revenues. Given the inertia of current spending and pro-cyclical debt service patterns—a reflection of pro-cyclical interest and exchange rates—sharp fluctuations in public sector investment may be required, generating the costs and inefficiencies mentioned earlier.

Other pro-cyclical rules are associated to explicit or implicit guarantees granted to the private sector. A case in question are the implicit guarantees of financial risks, which are reflected in the rescue packages for both domestic financial intermediaries and private firms with large external liabilities. A second case is public sector guarantees to private sector investments in infrastructure (such as minimum revenue or profit guarantees, or explicit coverage of exchange rate risks). Guarantees have three elements in common: (a) they are not always transparent; (b) they encourage private spending during booms; it is, thus, during periods of euphoria that implicit public sector spending in the form of an equivalent insurance premium is actually incurred, indicating that accrued public-sector spending during these periods is underestimated; however, (c) disbursements (cash spending) are incurred during crises, increasing borrowing requirements and crowding out other public sector spending. They thus encourage pro-cyclical private and public sector spending in non-transparent ways.

It is, therefore, necessary for authorities to set fiscal targets in terms of some sort of definition of the structural budget deficit. This means, first of all, that countries need to design mechanisms to sterilize temporary fiscal revenues. The experience gained from the use of stabilization funds for commodities with significant fiscal impact—the National Coffee Fund in Colombia (the first of its kind), the copper and petroleum stabilization funds set up in Chile and, more recently, the petroleum stabilization funds used by Colombia and Venezuela—must be extended to broader fiscal stabilization funds. Argentina created the first fund of this kind in 1999, but its operation will be delayed by the prior commitments to gradually reach a structural fiscal balance.

Well-designed social safety nets to protect vulnerable groups during crises (about which a broad-based consensus has emerged in recent international debates) is another useful alternative, particularly if mixed with funds to finance them that are accumulated during booms. An essential advantage of social safety nets is that spending is intrinsically counter-cyclical. On the contrary, anti-cyclical management of other spending may be inefficient. As indicated earlier, stop-go public-sector investment policies are inefficient. More broadly, an excessive reliance on anti-cyclical public sector spending policies—rather

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<sup>33</sup>/ See CEPAL/ECLAC (1998b).

<sup>34</sup>/ An important reason is the very higher short-term income elasticity of demand for imports. Since the tax component of imports (tariffs plus VAT) continues to be far in excess of the economy-wide average, and import-tax evasion is far below average, import volatility is reflected in tax revenues.

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**SESION 1**

**REGLAS MONETARIAS, REGLAS FISCALES  
Y FONDOS DE ESTABILIZACION:  
SU COORDINACION Y CONTRIBUCION A UNA  
ADECUADA GESTION MACROECONOMICA**

**STABILIZATION AND SAVINGS FUNDS FOR  
NONRENEWABLE RESOURCES  
— A CONCEPTUAL FRAMEWORK**

By  
**Rolando Ossowski**<sup>1</sup>

Preliminary  
Not for quotation

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## ABSTRACT

In some countries that are dependent on the export of oil and other nonrenewable resources, governments have established, or are considering setting up, nonrenewable resource funds (NRFs) to help in the implementation of fiscal policy. The paper provides a conceptual framework for the assessment of the possible role of NRFs in addressing the problems associated with reliance on nonrenewable resource revenues, and considers some of their operational implications.

### STABILIZATION AND SAVINGS FUNDS FOR NONRENEWABLE RESOURCES— A CONCEPTUAL FRAMEWORK

#### I. INTRODUCTION

A country with large exhaustible resources such as oil can benefit substantially from them, but the revenues from exploiting these resources can pose significant challenges. Fiscal policymakers need to decide how expenditure can be planned and insulated from revenue shocks arising from the volatility and unpredictability of resource prices. Decisions also need to be made on the extent to which resources should be saved for future generations.

Some governments have set up, or are considering setting up, funds as a response to these challenges. These can take various forms, ranging from separate institutions with discretion and autonomy to funds that in practice amount to little more than a government account. The general justification for such funds is that some share of government revenues derived from the exploitation of a nonrenewable resource should be put aside for when these revenues decline, either because the price of the resource has fallen and/or because the resource has been depleted. *Stabilization* funds aim at reducing the impact of volatile revenue on the government and the economy. *Savings* funds seek to create a store of wealth for future generations.

This paper provides a preliminary conceptual framework for the analysis of nonrenewable resource funds (NRFs).<sup>1</sup> It does not aim to directly address the issue of what macroeconomic and fiscal policy should be for a country with large nonrenewable resource endowments, which is a major topic that has been extensively covered elsewhere.<sup>2</sup> While the focus is largely on oil-producing countries, much of the analysis is relevant to other nonrenewable resource-producing countries under appropriate circumstances.<sup>3</sup>

The paper is organized as follows. Section II discusses the role and objectives of NRFs in the context of the issues involved in managing nonrenewable resource revenues that have prompted the creation of such funds. It also outlines the basic rules of funds, and some alternative and complementary approaches. Section III considers selected operational issues of NRFs, including budget linkages, asset

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<sup>1</sup> The paper draws substantially from a forthcoming IMF Occasional Paper (Davis, Ossowski, Daniel, and Barnett, 2001). The latter will include a review of selected country experience with NRFs. Fasano (2000) also discusses experience with NRFs.

<sup>2</sup> See, for example, Gelb (1988) and Engel and Meller (1993). Also, the paper does not discuss fiscal federalism issues that may arise in nonrenewable resource-producing countries.

<sup>3</sup> The discussion does not cover commodity price stabilization funds. These funds attempt to sever the link between domestic producer prices and fluctuations in world market prices, so that the income of domestic producers can be sheltered from external shocks. Also, it does not cover international commodity stabilization schemes.

Table 1  
OBJECTIVES AND DESIGN FEATURES OF SELECTED FUNDS

Country/ State	Name	Stated Objective(s)	Date Established	Accumulation Rules	Withdrawal Rules	Compliance with Rules / Changes to Rules	Control
Alberta	Alberta Heritage Savings Trust Fund	Savings (pre-1997, also economic and social development)	1976	30 percent of resource revenues until 1983. 1984-87: 15 percent. Transfers discontinued thereafter.	Discretionary transfers to the budget.	Yes / Yes	Oversight Committee (members of parliament) and Provincial Treasurer.
Alaska	Alaska Permanent Fund	Savings	1976	50 percent of certain mineral revenues (increased from 25 percent in 1980).	Principal (inflation-adjusted since 1982) invested permanently. Use of earnings decided by Governor and Legislature. 1/	Yes / Yes	Independent Trustees, ultimately Governor and Legislature.
Chile	Copper Stabilization Fund	Stabilization	1985, activated in 1987	Based on discretionary reference price determined by the government. 2/	Transfers to the budget (and extrabudgetary lending) based on discretionary reference price determined by the government. 2/	Yes / No	Ministry of Finance, Central Bank, and state copper company (CODELCO).
Kuwait:							
GRF	General Reserve Fund	Stabilization and savings	1960	Residual budgetary surpluses.	Discretionary transfers to the budget.	... / ...	Minister of Finance, Central Bank governor, and other officials.
RFFG	Reserve Fund for Future Generations	Savings	1976	10 percent of all government revenue. 3/	Discretionary transfers to the budget (with National Assembly approval).	... / ...	Minister of Finance, Central Bank governor, and other officials.
Kiribati	Revenue Equalization Reserve Fund	Stabilization and savings	1956 4/	"When surplus permits," later apparently changed to 25 percent of all phosphate receipts.	Discretionary transfers to the budget with parliamentary approval.	No / Yes	Minister of Finance, Secretary of the Cabinet, and other officials.
Norway	State Petroleum Fund	Stabilization and savings	1990, activated in 1995	All government oil revenues.	Discretionary transfers to the budget to finance the nonoil deficit (approved by Parliament).	Yes / No	Ministry of Finance.
Oman:							
SGRF	State General Reserve Fund	Savings	1980	Since 1998, oil revenue in excess of budgeted amount.	Discretionary transfers to the budget.	... / Yes	Autonomous government agency.
CF	Contingency Fund	Stabilization	1990 (abolished in 1993)	Residual oil revenue after budget and SGRF allocations.	...	... / ...	...
OF	Oil Fund	Oil sector investment	1993	Since 1998, market value of 15,000 barrels per day.	...	... / ...	Ministry of Finance.
Papua New Guinea	Mineral Resources Stabilization Fund	Stabilization	1974 5/	Government mineral revenues.	Government discretion, though based on estimates of long-run prices.	... / Yes	Government.
Venezuela	Macroeconomic Stabilization Fund	Stabilization	1998	Since 1999, 50 percent of oil revenue above reference values, set by decree for 1999-2004. 6/	Transfers to the budget and other state entities based on reference values; also discretionary transfers. 6/	No / Yes	Parliament and the Executive.

Source: Davis, Ossowski, Daniel, and Barnett, 2001, *Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications*, IMF Occasional Paper (forthcoming).

1/ Fixed portion of the earnings distributed as cash to Alaskans; also used to inflation proof the principal (as required by the 1982 amendment) and to increase capital.

2/ If copper price is up to US\$0.04 per pound above reference price, no deposit; 50 percent deposit between US\$0.04 and US\$0.06 per pound, and 100 percent thereafter. Withdrawals symmetric.

3/ Received 50 percent of GRF assets when established.

4/ Phosphate stock became exhausted in 1979.

5/ Expected to be wound up in 2001.

6/ Fifty percent (100 percent before 1999 change) of revenue above reference value to be deposited. Withdrawals, with congress approval, if (a) oil revenues in given year are lower than reference value or (b) the resources of the fund exceed 80 percent of annual average oil revenue in the 5 preceding years. Withdrawals under (b) were initially earmarked for debt repayment and capital expenditure. After 1999, these withdrawals are earmarked for social and investment spending and debt repayment. Fund balance at the end of the fiscal year must not be less than one-third of that at the end of the preceding year.

Sesión 1: Reglas monetarias, reglas fiscales y fondos de estabilización: su coordinación y contribución a una adecuada .....

prices of the commodity of interest are higher than their long-run equilibrium level or some other reference value, and draw down its resources when they are below that level.

Dissaving to smooth the downward adjustment of spending in response to a negative revenue shock or to completely insulate spending from such a shock should reflect the extent to which the revenue shock is permanent or temporary. If temporary, the government could dissave until revenue recovers (financing scope permitting). If permanent, dissaving should be used to smooth the downward adjustment in spending, but not to prevent expenditure adjustment. Spending that is not adjusted to a permanent shock could be unsustainable with the government continuously dissaving and eventually being forced to adjust. In particular, catastrophic negative price shocks that prompt major solvency reassessments (such as in the case of oil in 1986) may require large adjustments even in the presence of smoothing mechanisms.

A number of empirical studies suggest, however, that the prices of nonrenewable resources such as oil seem to have no well-defined time-invariant averages (Box 1). Shocks are persistent, and it may not be possible to distinguish clearly between transitory and permanent components, or to predict turning points in price cycles. Studies that do find evidence consistent with the existence of time-invariant long-run averages, conclude however that prices take a very long time to return to their average, and thus for practical purposes they may be of limited relevance.<sup>5</sup>

These characteristics of nonrenewable resource prices have significant practical consequences for stabilization funds. Prices that may not tend toward a "normal" or average level, or that may do so extremely slowly, and price changes that cannot be split easily into temporary and permanent components, pose complications to the intuitive idea that the fund should undertake additional saving in periods of "above average" prices and dissaving in periods of "below average" prices to avoid sharp adjustments in spending.

## 2. Adjustment costs

Even if it may not be possible to specify underlying resource prices, stabilization funds may be justified by the existence of substantial fiscal and macroeconomic adjustment costs associated with large and frequent changes in the level of expenditure. The sudden creation or enlargement of expenditure programs carries significant risks. A hasty undertaking of large-scale public spending programs may exceed the government's planning, implementation, and management capacity, with the result that it may be difficult to prevent wasteful spending. For example, the criteria for the selection of capital projects may become lax, leading to suboptimal investment decisions. The costs of new projects may also increase due to bottlenecks in the supply of some inputs.

Moreover, typically government expenditure proves difficult to contain or streamline following expansions, as spending programs become entrenched and take a life of their own. In particular, investment decisions are frequently irreversible and entail sizeable recurrent costs. The productivity of public investment would be affected if good capital spending programs are cut back, postponed, or abandoned. Drastic expenditure reductions in the face of negative external shocks (which may involve cuts in social spending and the government payroll, besides capital spending) may lead to social instability, discouraging investment and reducing future growth. Such reductions could involve, in particular, the abandonment of viable projects, where the return on some additional expenditure might be high.

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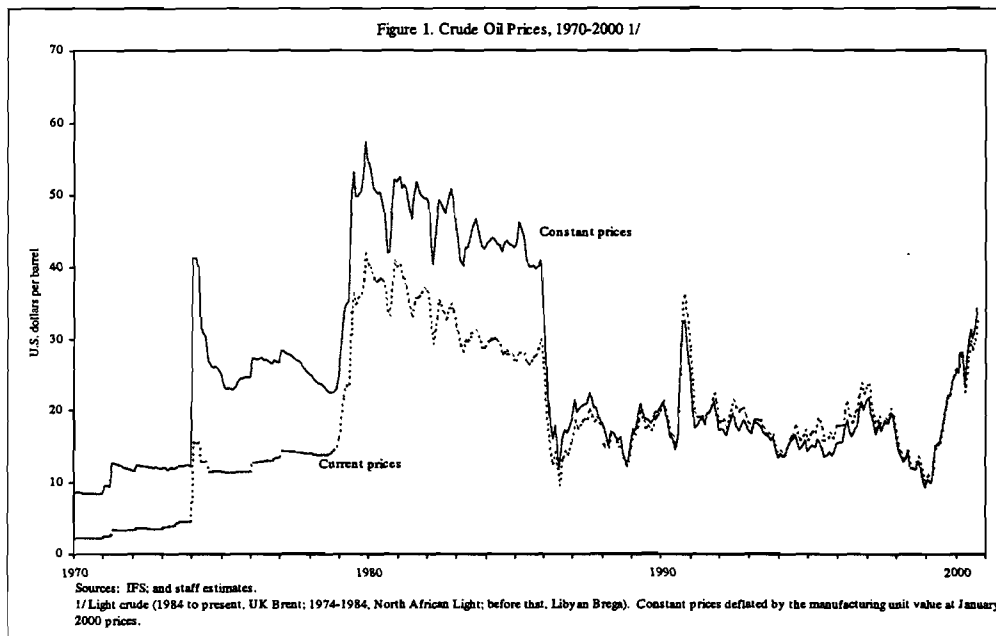
<sup>5</sup> If mean reversion is slow, even if nonrenewable resource prices have a time-invariant long-run average, shocks will tend to seem permanent to countries with limited reserves of the nonrenewable resource.

**Box 1. Time-Series Properties of Oil Prices**

There is a body of empirical evidence which suggests that oil prices do not have well-defined time-invariant averages. <sup>1/</sup> The evidence would seem to be relatively strong for data sampled at short intervals. Studies that have found evidence that oil prices may be stationary (typically using data sampled at longer intervals), also find that mean reversion is extremely slow—prices take a long time to revert to their long-run averages following a deviation.

Consequently, shocks are extremely persistent and may affect all expected future prices. Small yet long-lived price shocks would have different implications for the appropriateness of policy responses than very large long-lived price shocks. The evidence shows that oil prices exhibit a pattern of large fluctuations and substantial volatility (Figure 1). Research at the IMF suggests that one-third of the time the oil market will be faced with the prospect of a monthly price change greater than 8 percent (Cashin, Liang, and McDermott, 1999). At the oil prices currently prevailing, in any month there is a one-in-six chance that the oil price may drop by some US\$2.50 a barrel. There is also little evidence of a consistent “pattern” to oil price cycles, as the probability of an end to an oil price slump (a period of absolute price decline) or boom (a period of absolute price rise) appears to be independent of the time already spent in the slump or boom (Cashin, McDermott, and Scott, 1999).

The notion that oil prices may not tend toward a time-invariant average or “normal” price (or that they may do so very slowly) may be counterintuitive. There may be a presumption that at higher oil prices production of oil and its substitutes should increase, and that oil output should decrease if prices are below marginal costs. This might give rise to the conjecture that oil prices might move randomly but within a “corridor” or band of prices with reflecting barriers. However, from an analysis of the long-run behavior of oil prices in real terms it is difficult to find such bands. Rather, the evidence would appear to be consistent with the view that unpredictable regime switches occur from time to time. In the last three decades, regime changes appear to have taken place in 1973, 1979-80, and 1986.



<sup>1/</sup> That is, oil prices appear to follow a nonstationary process. See, for example, Hausmann, Powell, and Rigobón (1993); Claessens and Varangis (1994); and Engel and Valdés (2000). The power of the tests used in these studies, however, is generally low.

First, governments, even if they see the case for increased financial savings when nonrenewable resource revenues are high, often face substantial political pressures to spend the higher revenues. Second, politicians may not fully appreciate the need to save in such circumstances, they may be short-sighted, or they may not be rewarded for thinking about long-term issues, and it could be argued that they should be constrained to do so, for instance, in the form of binding fiscal rules, to ensure more "responsible" behavior.<sup>6</sup> Third, governments may actually find it politically difficult to issue gross debt to finance spending and transfers to an NRF. For example, legislatures may be opposed to further issues of debt. By formally limiting the resources available, funds could help prevent large increases in spending during revenue upswings.

On the other hand, large (or rapidly growing) NRFs may themselves give rise to domestic spending pressures and exacerbate the problem of rendering longer-run saving abroad politically acceptable. This could happen, for example, if there is public perception that some of the resources in the fund could be "better" used to increase domestic expenditure, or reduce taxation.

## 6. Contingent stabilization funds

Stabilization funds often take the form of price- or revenue-contingent funds. Such funds are designed to accumulate resources when the resource price or revenue is "high" (exceeding some threshold) and to pay out when the price or revenue is "low" (falling below a second threshold). The thresholds are usually preannounced.

The aim of these funds is to smooth out fluctuations in the recurrent resources available to the budget, by reducing or eliminating the uncertainty and volatility of resource-related revenues flowing into the budget. This could allow budgetary spending to be insulated from changes in the resource price—which is implicitly assumed to deviate from its long-run average only temporarily—or a more limited smoothing of expenditure adjustment to price shocks.

Contingent rules may determine that resources should be deposited in the fund if the export price or revenue exceeds some reference value. The reference value may be fixed in nominal terms, or it may be changed on a discretionary basis. Alternatively, the reference value may be calculated on the basis of a formula which may be linked to past observations and/or may include forecasts of future prices. If prices or revenues are lower than the reference values used for determining withdrawals, the fund may use these resources to make transfers to the budget or for other purposes. In addition, the required accumulation and permissible depletion of resources may also be made dependent on the size of the fund at the time.

The accumulation of assets in the fund may be subject to a cap determining the fund's maximum size. The rules would also need to specify whether the fund can borrow (typically this is not the case) or needs to keep a minimum balance, and whether its capital may be used as explicit collateral for government debt operations.

Their simplicity notwithstanding, contingent funds with fixed or backward-looking rules may prove difficult to design and operate.<sup>7</sup> As discussed above, it may not be possible to specify long-run averages for prices or revenues with any degree of confidence, or they may display only very weak tendencies to revert to "normal" levels, and shocks are persistent. Under such circumstances, a contingent

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<sup>6</sup> Fiscal rules may constrain expenditure, the deficit, or they may restrict the ability to borrow. As discussed in Kopits and Symansky (1998), fiscal rules can have both advantages and disadvantages.

<sup>7</sup> See Claessens and Varangis (1994), and Hausmann (1995).

borrowing particularly easy when the resource price is high and the fund's assets are burgeoning.<sup>10 11</sup> The achievement of actual expenditure smoothing therefore requires *additional fiscal policy decisions* besides the operation of a fund.

### C. Savings funds

#### 1. Exhaustibility of the revenue stream

Government revenue derived from exploitation of nonrenewable resources differs from other revenue in that it partly represents a depletion of wealth. When a significant share of government revenue is derived from the exploitation of such resources, intergenerational equity and fiscal sustainability require consideration of the finite nature of the resources and of the prospective evolution of government net wealth, as analysis based solely on indicators of fiscal balance could be misleading. In particular, government wealth can be seen as the sum of net financial and resource wealth. Thus, if all the revenue from nonrenewable resources were to be consumed, this would leave less wealth, and less consumption opportunities for future generations. This would generally be considered undesirable on intergenerational equity grounds.

How much revenue from nonrenewable resources should be saved rather than consumed is a complex question that has been the subject of substantial research.<sup>12</sup> In general, sustainable government consumption is related to the permanent income out of government net wealth (inclusive of resource wealth). This relationship would need to take into account factors such as population growth and technological change. It is also difficult to estimate in practice, with any degree of confidence, such variables as the future price of the nonrenewable resource, the amount of the endowment, and the cost of extracting it, especially when these factors may vary substantially and frequently.

Nevertheless, long-run fiscal sustainability considerations would generally imply saving a portion of today's nonrenewable resource revenue, and setting normative limits on the nonresource fiscal deficit.<sup>13</sup> This approach would both stabilize usable revenue and provide for the accumulation of financial resources that make up for the depletion of the natural resource, thereby helping implement fiscal policies that are set within a longer-term framework.

Savings with the objective of preserving net government wealth are different from the financial savings designed to smooth expenditure adjustment discussed above. The former represents an economic concept of saving, that is, the excess of current revenue over current expenditure, and the theory is mute as to whether it should be invested in public works or held as financial assets, and thus if the government should run an overall surplus or deficit. Savings in order to smooth expenditure adjustment, however, relates to financial savings. For example, if a government runs high economic savings, but spends massively on public investment during "good" times and fails to build up financial assets, this may not help it finance expenditure adjustment during "bad" times.

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<sup>10</sup> If the fund were allowed to spend directly or to lend, this would further impair any ability of the fund to generate financial savings.

<sup>11</sup> Regulations could be put in place to rule out the use of the fund's capital as explicit collateral for government borrowing. It may be more difficult, however, to preclude the use of the resources as implicit collateral.

<sup>12</sup> See, for example, Tersman (1991), Liuksila, García, and Bassett (1994), and Engel and Valdés (2000).

<sup>13</sup> Countries that have just discovered large nonrenewable resource endowments may be justified in consuming the initial revenue from the resource if it is below the estimated permanent income from the resource.

The establishment of a financing fund, effectively little more than a government account, may be related to political economy considerations. The fund may help make explicit the intertemporal implications of expenditure choices without the potential cost of budget fragmentation (see Section III.A). For example, an increase in expenditure would automatically lead to lower deposits into the fund, or a greater withdrawal from the fund, with computable consequences for fiscal solvency and the returns on government assets in future years. At the same time, this type of fund may provide little "disciplining" effects, since the flows in and out of the fund depend on resource revenue and policy decisions of the authorities embodied in the nonresource fiscal stance.

### **E. Alternative Approaches**

The objectives of stabilization, saving for the future, or investing abroad to sterilize large foreign exchange inflows, could be achieved through implementation of a sound fiscal policy within the context of an overall budget strategy. If the appropriate fiscal response to a higher nonrenewable resource price were to increase public savings, the government could achieve it in the context of such a framework, and with any financial saving comprising part of the total financial resources available to the government. Similarly, when prices fall and the appropriate response is to dissave, this could be done by borrowing or running down total financial assets. An overall fiscal policy could also be geared toward saving for the future or placing resources abroad to sterilize large foreign exchange inflows.

The formulation of an overall fiscal policy may be aided by a medium-term expenditure framework which can help limit the extent of short-run expenditure responses to rapidly changing resource revenues. Multi-year expenditure planning can also allow a better appreciation of the future spending implications of present policy decisions, including the recurrent costs of capital spending (Potter and Diamond, 1999).

Stabilization funds on their own cannot reduce the uncertainty and volatility of nonrenewable resource revenues facing the public sector as a whole. In this context, however, there may be a role for the use of contingent financial instruments such as options and futures contracts to deal with the external exposure and transfer risk to international financial markets. Recourse to contingent markets might permit prices (or price ranges) for nonrenewable resource deliveries in future periods to be "locked in." As a result, budgeting could become more realistic and certain. Hedging could also provide some protection against substantial price falls. In practice, however, there may be limitations to the extent to which future production might be hedged.<sup>14</sup> In addition, the undertaking of hedging operations requires an appropriate institutional framework, to minimize possible governance and transparency risks.

### **III. NONRENEWABLE RESOURCE FUNDS: SELECTED OPERATIONAL ISSUES**

The establishment of an NRF requires decisions as to its integration within the fiscal framework and its asset management strategy. Governance, transparency, and accountability issues also need to be addressed. These topics are briefly reviewed in this section.

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<sup>14</sup> For very large producers, hedging a substantial amount of future output may either not be possible, or may distort market prices. Moreover, liquidity in contingent markets tends to be concentrated in the 1-2 year range. Credit constraints can also be an important factor in limiting large-scale excess to certain types of contingent markets by less creditworthy countries.

### **1. Asset management strategy**

An asset management strategy would need to be defined for the fund, including prudential investment rules, targeting desired levels of risk, liquidity, and return. The fund's financial operations should be designed to avoid disrupting financial markets and macroeconomic stability. Equally important, the strategy would need to take into account the main objectives of the fund, and in particular the relative emphasis placed on stabilization and savings, in the context of the government's overall asset management strategy.

Consideration would need to be given to the appropriate time-horizon. For example, the liquidity and maturity of "risk-free" assets would be a relevant consideration. Similarly, decisions as to whether to hold equities in the portfolio might depend on whether the fund's objectives are seen as mainly related to long-term savings or short-term stabilization. The currency composition of the assets would also be important.



The asset management strategy should reflect a consolidated portfolio of the government. In addition, the fund's short-term asset operations should be consistent with, and coordinated with, the debt management operations of the Ministry of Finance, the Treasury's management of the government's cash flow, and the financial assets already held as part of the government's balance sheet. In some cases, difficult choices may need to be made between assets held in the fund and outstanding gross government debt.

A strong case may exist for placing the fund's accumulated resources abroad. Investing them in domestic non-government financial assets would transmit resource revenue volatility to the economy. In downturns, the withdrawal of domestic deposits could have a contractionary effect on the economy (unless offset by open market operations), while investment in domestic financial assets and monetization of the fund's flows during upturns could fuel aggregate demand.<sup>15</sup> Also, the protection of the competitiveness of the nonresource tradable sector may be a policy objective, which could be helped by the sterilization of savings.

## **2. Domestic investment issues**

The fund's resources might be used to undertake domestic investment in physical assets rather than sterilized abroad. Countries with pressing infrastructural needs or with perceived opportunities for productive domestic investment are particularly likely to consider this option. Such a strategy could also aim at enhancing the competitiveness (and promote the growth) of the nonresource tradable sector; in effect, part of the resource wealth would be given up for the prospect of higher nonresource wealth. There is, however, a danger that such spending may rise to an unsustainable level, or that too quick an increase may result in poor quality projects.

There are a number of reasons to suggest that an NRF should not undertake domestic capital expenditure directly. First, investment should be guided by overall policy considerations (including medium-term recurrent implications), rather than by the availability of resources in the fund. Second, a perception that resources are readily available for domestic uses could create incentives for rent-seeking and make the fund prone to abuse. Third, it may be difficult to assess the effects of the domestic use of resources on aggregate demand and competitiveness if the spending is off-budget. Finally, an NRF with stabilization objectives may need to build up liquid assets to preserve its precautionary objective for budget financing.

## **C. Governance, Transparency, and Accountability**

The rules and operations of an NRF should be transparent and free from political interference. Lack of transparency would hamper legitimacy and undermine public support for the fiscal policy objectives that are related to the fund's operations. It would also allow incentives for lobbying for resources and pressures to increase spending with positive nonrenewable resource shocks. Therefore, stringent mechanisms should be put in place to ensure accountability and prevent the misuse of resources.

This requires regular and frequent disclosure and reporting on the principles governing the fund and its operations. Regular reporting on the flows into and out of the fund during the year and the allocation of the resources under the fund's supervision should be submitted to the legislature and made widely available to the public.

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<sup>15</sup> These arguments, however, may not apply in the case of perfect capital mobility and highly developed domestic financial markets, and when the operations of the fund are small relative to the size of the domestic financial market.

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**OPTIMAL FISCAL STRATEGY FOR OIL EXPORTING COUNTRIES**

By  
**Eduardo Engel and Rodrigo Valdés**

## OPTIMAL FISCAL STRATEGY FOR OIL EXPORTING COUNTRIES

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January 27, 2000

### Abstract

This paper develops simple guidelines for fiscal policy in oil producing countries, focusing on three issues: intergenerational oil distribution, precautionary saving, and adjustment costs. The paper presents a framework to analyze how the revenue generated by an exhaustible source of wealth that belongs to the government should be distributed between current and future generations. This framework is used to show the strengths and limitations of existing answers, which motivates a new approach for dealing with this question. The paper derives simple, closed form approximations to the optimal level of government expenditure when an important part of government revenue is generated by an uncertain and exhaustible natural resource such as oil. Price uncertainty, budget uncertainty, and the (possibly asymmetric) costs of adjusting expenditure levels are considered.

Key words: optimal fiscal policy, stabilization fund, intergenerational oil distribution, precautionary saving, adjustment costs, exhaustible natural resources, optimal government expenditure, price uncertainty, budget uncertainty, oil exporting countries

JEL classification: E21, E61, E62, H50, H60, O16, O23, O53, Q33, Q38

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and none significantly better than a geometric random walk where the forecast of future prices is equal to the current price.

This paper studies fiscal strategy from a normative point of view. Our purpose is to develop a set of rules that can improve welfare assuming a particular set-up. The paper does not study problems of fiscal policy sustainability,<sup>3</sup> since we assume throughout that the government intertemporal budget constraint is always satisfied, thereby ruling out Ponzi schemes.

The paper is organized as follows. Section 2 presents a framework to discuss the intergenerational oil distribution problem. Section 3 discusses the intuitions behind the design of optimal fiscal policy. Section 4 evaluates two existing approaches to the problem of intergenerational distribution and proposes a new one. Section 5 characterizes the stochastic process of oil prices. Section 6 derives policy guidelines based on precautionary saving and adjustment costs. Section 7 discusses the role of stabilization funds. Finally, section 8 concludes.

## 2 Framework

In this section we provide an organizing framework to analyze the following question:

*How should the revenue generated by an uncertain source of wealth that belongs to the government, such as oil in the case of oil exporting countries, be spent and distributed between current and future generations?*

An answer to this question has important policy implications, since it brings with it a prescription for optimal fiscal policy, providing guidelines for managing variables such as government deficits, government expenditures, taxes, the current account and stabilization funds.

The standard economic framework for analyzing the normative question we are concerned with is the following one:

- (a) Choose a Social Welfare Function (SWF).
- (b) Decide the set of policy instruments available to the government and the constraints it faces.
- (c) Choose a set of assumptions (and constraints) for private sector behavior.
- (d) Find the values of the policy instruments considered in (b) that maximize the SWF specified in (a) subject to the behavioral assumptions made in (c). We refer to this problem as the *Optimal Consumption Problem*.

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<sup>3</sup>See, e.g., Liuksila et al. (1994) for a discussion about fiscal sustainability in oil producing countries.

For simplicity we assume that  $c_G$  is determined by the government's current expenditure level. A more realistic assumption, which we may explore in future versions of this paper, is that it also depends on past government expenditures.<sup>5</sup>

### 2.1.2 Social Welfare Functions

A typical SWF (at time 0) is (the expected value of) a function of the instantaneous utilities of present and future generations:

$$W = E_0[W(u_0, u_1, u_2, \dots)]. \quad (3)$$

Where  $E_0$  denotes the expected value, conditional on the distributions of unknown quantities (such as future oil prices) based on information available at time  $t = 0$  and  $u_0, u_1, u_2, \dots$  denote the instantaneous utilities at times 0, 1, 2, ... The function  $W$  is increasing in all its arguments. It also exhibits decreasing marginal returns in all its arguments.

The quantities  $u_0, u_1, u_2, \dots$  in (3) may also be interpreted as the utilities of a representative consumer in consecutive years (instead of generations).

The most commonly used SWF are the following:

#### Utilitarian SWF

A SWF  $W$  is *utilitarian* (or of the Bentham-Ramsey type) if it is a weighted sum of the utility of present and future generations:

$$W(u_0, u_1, u_2, \dots) = \sum_{t \geq 0} \beta^t N_t H(u_t). \quad (4)$$

The parameter  $\beta$  denotes the subjective discount rate. This value is close to but smaller than one; the smaller it is, the larger the degree of impatience in the SWF.

$N_t$  denotes the population at time  $t$ . The social welfare function grows in proportion to the population. We will assume that  $N_t = (1 + n)^t$ , so that the population grows at a constant rate  $n$ .

The function  $H$  is a standard utility function, increasing, with decreasing marginal utility. A particularly useful case of (4) is:

$$H(u) = u^{1-\rho}/(1-\rho), \quad (5)$$

with  $\rho > 0$ .<sup>6</sup> This is the Constant Elasticity of Substitution (CES) utility function:  $1/\rho$  denotes the elasticity of substitution of consumption at different moments in time. Furthermore, if there is

<sup>5</sup>This requires distinguishing between government expenditures on the public good and government investments that produce a future flow of the public good.

<sup>6</sup>If  $\rho = 1$  we define  $H(u) = \log(u)$ .

## 2.2 Policy Instruments

A variety of policy instruments may be available to governments when implementing fiscal policies. Savings and debt, taxation, investment, and stabilization funds are among those most relevant for the problem considered in this paper.

### 2.2.1 Privatization

The government of an oil exporting country could consider the possibility of privatizing the state-owned oil monopoly, as was done, for example, recently in Argentina.<sup>7</sup> In this paper we rule out this possibility. One reason for doing so is that the government may be unable to commit credibly not to expropriate the privatized firm. Yet even if oil is fully privatized, the fiscal authority still faces the problem of how to distribute the proceeds across generations. What privatization does is reduce uncertainty with respect to initial wealth, besides likely efficiency gains which go beyond the scope of this paper.

Even though we do not consider privatization in the set of feasible policy instruments, we extensively use the *possibility* of future privatization as a convenient short-cut to derive approximations to the solution of the optimal consumption problem under uncertainty.

### 2.2.2 Savings

Governments can hold financial assets to finance future expenditures. We denote the gross real interest rate accrued per period for these savings by  $R$ , and assume that it is known and constant over time.

### 2.2.3 Debt

Governments incur debt to finance current consumption, investment and interest payments on previously incurred debt. The interest paid varies over time, both due to international and local factors. Nonetheless, interesting insights can be obtained even if the simplifying assumption of a fixed real interest is made. This assumption is justified by noting that oil prices are considerably more volatile than interest rates. Furthermore, we ignore any difference between the interest rate paid on debt and that accrued to savings, and denote both gross rates by  $R$ .

The following equation describes the evolution of government financial assets, when savings and debt at a gross interest rate of  $R$  are possible:

$$F_{G,t+1} = R(F_{G,t} + Y_{G,t} - C_{G,t}). \quad (11)$$

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<sup>7</sup>It should be noted, though, that oil is not one of Argentina's main exports.



Government expenditures face an intertemporal budget constraint, that is they must eventually be financed through taxes or other sources of government income. This budget constraint, as of period 0, states that the present value of government incomes must equal the present value of government expenditures, that is:

$$F_{G,0} + \sum_{t \geq 0} R^{-t} [Y_{G,t} + \Gamma_t] = \sum_{t \geq 0} R^{-t} C_{G,t}. \quad (13)$$

### 2.2.6 Stabilization Funds

A stabilization fund saves and spends money with the objective of stabilizing a specific aggregate variable, such as overall government expenditures or government expenditures financed from the profits generated by a government owned primary commodity such as oil. The fund is held in liquid assets and incentives must be put in place to prevent the assets from being spent due to political pressures.

A well designed stabilization fund should be closely related to the solution of a problem of the sort posed at the beginning of this section. The savings/spending rule should be such that, in combination with other sources of government savings/credit, it implements the optimal fiscal strategy. Furthermore, a government may value liquidity *per se*, in which case having a stabilization fund may be desirable even if the government's net financial position is negative.

### 2.3 Private Sector

An important issue regarding private sector behavior is whether there is a bequest motive or not. The assumption of no bequest motive (or, more generally, of a weak bequest motive) is implicit in the intergenerational equity question central to this paper, for otherwise no government intervention would be needed to ensure that future generations benefit government owned wealth. If current generations do not care for their descendants, the private sector will not save for future generations and, given the opportunity to do so, will spend all the government owned wealth.<sup>9</sup>

The private sector also participates in the production of goods and services in markets which are assumed competitive. These goods and services may be consumed locally or exported. The private sector also has access to international finance for investment projects within the country.

The private sector also maximizes a welfare function, which even though qualitatively similar to the SWFs considered earlier in this section, may differ in some fundamental ways. An important difference we will encounter in most cases is that the time horizon considered by private agents is considerably shorter than that considered by the government's SWF. This is due to our assumption that private agents do not want to leave inheritance to their descendants.

<sup>9</sup>Strictly speaking this assumes no uncertainty about an individual's life span. If individuals do not know when they will die, they may die with positive net assets but this effect is typically small and will be neglected.

properties, such as a degree of risk aversion that *increases* with consumption levels and the implication that the optimal consumption path does not depend on the variance of income.

Another intuition that follows from consumption smoothing with uncertain income is that the government should react differently to transitory and permanent changes in income. A transitory positive shock to income should increase consumption only by the annuity value of the income shock. By contrast, a permanent increase should be met by a one-for-one reduction of consumption. For example, the increase in the price of oil following the invasion of Kuwait by Iraq in August of 1990 was clearly transitory. By the time the oil price had returned to its pre-invasion levels (in mid 1991), the rule described above can be used to spend the windfall generated by the price increase.

More generally, if income follows an autoregressive process with first order correlation  $\psi$ , which therefore also captures the degree of persistence of income shocks, the fraction of the current shock to income that should be spent is  $(R - 1)/(R - \psi)$ .<sup>10</sup> The case  $\psi = 0$  corresponds to i.i.d. (and therefore transitory) shocks while  $\psi = 1$  corresponds to the case where income follows a random walk (permanent shocks).

In practice it is often not easy to determine the extent to which a change in income is permanent or transitory. Most shocks can be thought of as having both a permanent and a transitory component. In Section 6 we review recent econometric developments that can be used to accomplish this decomposition, concluding that a geometric random walk appears as a sensible description for the oil price.

Furthermore, because oil is an exhaustible resource, even permanent price shocks have only a transitory effect on income. The transitory component of the shock is more important the shorter the expected duration of the resource.

### 3.2 Precautionary Saving

A fundamental intuition underlying savings behavior is that an increase in risk should increase current savings and decrease current consumption. This is known as the *precautionary saving* motive, see Leland (1968). The *consumption smoothing* intuition does not incorporate this idea, since it prescribes that the current annuity value of expected wealth should be spent every year, regardless of the degree of uncertainty associated with this wealth.

To capture the precautionary savings motive, we must consider more realistic instantaneous utility functions than the quadratic case. This typically comes at the price of not having an explicit expressions for optimal consumption,<sup>11</sup> and numerical methods must be used to determine the optimal plan (as in Zeldes [1989], Deaton [1991] and Carroll [1992]).

<sup>10</sup>See, for example, Flavin (1981).

<sup>11</sup>Caballero (1990) finds a particular case where an explicit expression for optimal consumption can be derived. Yet he assumes constant *absolute* risk aversion, which also has unappealing properties.

not hold and all sources of finance should be used in such a way that the marginal distortion they introduce is the same over time and across financing instruments. This result is referred to as "tax-smoothing", see, for example, Barro (1979).

## 4 Intergenerational Redistribution

In this section we discuss the problem of how to distribute oil wealth across generations. We analyze the degree to which two well known approaches to optimal fiscal policy correspond to particular cases of the framework developed in Section 2 and offer a new approach to deal with this problem.

### 4.1 Benchmark Model

The following model will be a useful benchmark throughout this section.

- (a) **Social welfare function:** Utilitarian with constant elasticity of substitution across time ( $1/\rho$ ). The initial population is normalized to one and grows at a constant rate  $n$ . The time horizon is infinite and there is no income uncertainty. Then (4) becomes:

$$U = \sum_{t=0}^{\infty} \beta^t (1+n)^t u_t^{1-\rho}. \quad (14)$$

The instantaneous utility has consumption of the public and private goods as separate arguments and the elasticity of substitution between both consumption goods is constant ( $1/\gamma$ ) as in (2).

- (b) **Policy Instruments:** The government is the only provider of the public good, which it finances with taxes, debt and proceeds from the sales of the government owned natural resource (oil in what follows). Oil income in period  $t$  is denoted by  $Y_{G,t}$ ; it is known with certainty and determined exogenously.

The government collects taxes and makes transfers to the private sector without generating any distortions in doing so. The government may also save and borrow at the international gross rate  $R$ . The only constraint it faces in setting taxes and borrowing is its intertemporal budget constraint (13). Initially it holds financial assets equal to  $F_{G,0}$ .

- (c) **Private Sector:**

Consumers live for one period and have no bequest motive; it follows that the private sector holds no assets or debt. Private sector production in period  $t$  is exogenous and equal to  $Y_{P,t}$ .

The absence of bequests and the assumption that individuals live for one period imply that the private sector will accumulate no assets. Hence  $F_{G,t} = F_t$  and the current account surplus is equal to the government's total (including interest receipts) surplus. Furthermore, optimal per capita taxes,  $\tau_t$ , are equal to:

$$\tau_t = c_{P,t} - y_{P,t}. \quad (21)$$

#### 4.1.1 Examples

**Example 4.1 (Constant Non-oil Production)** We assume no population growth ( $n = 0$ ),  $R = 1.06$ ,  $\beta R = 1$ ,<sup>13</sup> and no initial financial assets ( $F_0 = 0$ ). The optimal mix of the public and private goods requires that the former represent 20% of total consumption.<sup>14</sup>

Initial oil production, which accrues to the government, accounts for 80% of GDP, while the remaining 20% is produced by the private sector. Oil production remains constant (in real terms) for 25 periods, moment at which oil reserves are exhausted. Production in the non-oil sector remains constant indefinitely.

Figure 4.1 shows the evolution of consumption, financial assets (as a fraction of non-oil GDP), and the current account (also as a fraction of non-oil GDP). The first two series are divided by 100 and 50, respectively. It can be seen that consumption remains constant and equal to the annuity value of initial wealth (both from the oil and non-oil sectors). During the "boom years" of oil production, assets are accumulated (by the government) to maintain a level of consumption above production once oil is exhausted. During the boom years we also observe a positive and, due to interest payments, increasing current account surplus, which turns into a constant deficit once oil is exhausted. Since oil revenues can finance more than the optimal level of the public good, the government transfers a fixed amount (not shown in the figure) to every generation.

It is interesting to note that if  $\beta R < 1$  (impatient individuals), the consumption path will be downwards sloping instead of constant, since individuals want to consume more and save less today. If this effect is large enough, there may be no initial current account surplus, as individuals spend more than the sum of their private income and the current oil income. ■

**Example 4.2 (Increasing Non-oil Production)** Assume now that, instead of remaining constant, non-oil production grows 2% per period forever. The remaining assumptions are the same as in the previous example.

Figure 4.2 shows the evolution of the same three variables considered in Figure 4.1, with the same normalizing constants. It also shows the path of optimal taxes (as a fraction of non-oil GDP). Consumption is constant, at a level 12.3% higher than in Figure 4.1, reflecting the fact that non-oil

<sup>13</sup>This assumption makes the value of  $\rho$  irrelevant in this problem.

<sup>14</sup>This is equivalent to having  $k^{1/\gamma} = 4$ .

*revenue will be saved and consumed. To make this decision based on intergenerational equity considerations, it is necessary to determine the permanent rent available from hydrocarbon exploitation. This rent represents the level of public consumption that can be currently enjoyed without increasing the country's debt and depleting its wealth.*<sup>15</sup>

This approach can be rationalized within the framework of Section 2 as follows:

- (a) **Social welfare function:** The difference with the BM is that the instantaneous utility function only depends on consumption of the public good.<sup>16</sup>
- (b) **Policy Instruments:** The difference with the BM is that the government cannot collect taxes.
- (c) **Private Sector:** The private sector does not appear, at least explicitly, in the problem.

The Permanent Oil Income Model (POIM) considers the problem of spending the government owned oil as if it were totally unrelated to the private sector's consumption of private goods. The solution to the problem is obtained by substituting total initial *government* wealth for total wealth in (17):

$$W_{G,0} \equiv F_{G,0} + \sum_{s \geq 0} R^{-s} Y_{G,s}. \quad (22)$$

We then have:

$$C_{G,0} = (1 - \bar{\alpha}) R W_{G,0}, \quad (23)$$

$$c_{G,t+1} = [\beta R]^{1/\rho} c_{G,t}. \quad (24)$$

If  $\beta R = 1$ , the right hand side of (23) (divided by period 1 population) is *permanent oil income*, that is, the highest per capita consumption level from oil resources that can be maintained indefinitely, thereby justifying the name of the model.

The POIM can be used to rationalize the often mentioned criterion of intergenerational fairness according to which oil wealth (either in absolute or per capita terms) should be kept constant. Equations (23) and (24) imply that per capita government wealth, which in this model corresponds to oil wealth, remains constant along the optimal consumption path only if  $\beta R = 1$ .<sup>17</sup> If  $\beta R < 1$ , it is optimal for society to deplete oil wealth as time goes by. It also follows from (23) and (24) that *total* oil wealth remains constant along the optimal consumption path only if  $\beta R(1+n)^\rho = 1$ . If  $n > 0$  this requires a relatively impatient society, since  $\beta R < 1$ .

<sup>15</sup>Quoted from Fasano (1999, p. 1).

<sup>16</sup>That is, it corresponds to the particular case of (2) where  $k = 0$ .

<sup>17</sup>To derive this result evaluate (23) at  $t$  and  $t + 1$ , instead of  $t = 0$ , and equate the corresponding ratio to that obtained from (24).

*intergenerational wealth transfers. It follows that the solution to the POIM is the same as that of the BM. Disregarding consumption of the private good when choosing the optimal consumption path is of no consequence in this case.*

*The equivalence between both optimal paths breaks down if we assume  $\beta R < 1$ . In this case, the increasing consumption path prescribed by the BM will be steeper than the one prescribed by the POIM. ■*

**Example 4.4 (Increasing Non-oil Production)** *We modify the previous example by assuming that non-oil GDP grows at 2% per period. Optimal consumption of the public good is constant and total consumption increases over time at the same speed as private income. The optimal consumption path is the path of private income shifted by the permanent oil income. The optimal consumption path differs significantly from that obtained in Example 4.2. The government accumulates financial assets while oil is extracted, but asset accumulation is considerably less than in the solution to the BM, since the government is not allowed to use taxes to make intergenerational wealth transfers. ■*

It follows from both examples above that if oil wealth is front loaded and individuals are not very impatient, the country should save part of the resource proceeds. The counterpart of these savings is a persistent fiscal and current account surplus for some time. This is the main conclusion in Alier and Kaufman (1999), who work with a model that has the SWF of the Benchmark Model but assume constant and exogenous taxes, thereby avoiding intergenerational wealth redistribution. The latter assumption makes their problem equivalent to our POIM, with identical policy prescriptions and limitations.<sup>19</sup>

### 4.3 A New Approach

Both models discussed in the previous subsections have serious shortcomings. The Benchmark Model allows for intergenerational wealth transfers which we do not observe even in the absence of oil wealth. On the other hand, the POIM avoids intergenerational transfers by ruling out government policies that benefit all generations (as viewed from the BM). The Benchmark Model's SWF is more appealing than that of the POIM, since individuals benefit both from consumption of the private and public goods. Regarding instruments, the BM has more than we would like, while the POIM eliminates unattractive instruments (intergenerational wealth transfers) at the cost of ruling out appealing policy alternatives.

The challenge therefore is to limit the policy instruments available to the government in the BM in such a way that the attractive properties of both models can be recovered. We propose

<sup>19</sup>Their generations live for two periods, yet no additional insight is gained from this assumption. Also, the mix of public and private good provided is typically not optimal.

*Those that benefit the most are those that would have been poorest without oil wealth—generations that expected relatively high private incomes do not benefit at all. ■*

**Example 4.7 (Decreasing Non-Oil Income)** *Figure 4.4 shows what happens when non-oil income decreases by 2% during the first 50 periods, and remains constant thereafter.<sup>21</sup> The behavior of the optimal consumption path in the BM and POIM are qualitatively similar to those described in the previous example. In the case of the CNM, optimal consumption decreases initially, being equal to non-oil income during this phase. Eventually (period 13 in the figure) it stops decreasing and remains constant thereafter. By contrast with Example 4.6, in this case the optimal consumption path of the CNM is fiscally more conservative than that of the POIM. It prescribes not spending oil related wealth during early years, saving it to help those who expect to be worse off in the future. Only in period 13 the CNM recommends to begin spending oil wealth to help maintain the highest consumption level compatible with the restriction of not leaving any generation worse off than it would have been without oil. It is also interesting to note that in this example the consumption path of the Benchmark Model is the one that is most conservative from a fiscal point of view. It taxes heavily the initial generations to finance a constant level of consumption for everybody. ■*

The following general result for the optimal consumption path under CNM is presented in the Appendix (Proposition A.2). It assumes no income uncertainty and  $\beta R = 1$ . Under these assumptions, the optimal consumption path for the CNM can be found as follows: First, the generations are ordered according to their utility in the non-oil scenario. Next, oil wealth is used to raise the income of the poorest generation until it equals that of the second poorest. If this does not exhaust the oil wealth, the income of the two poorest generations is raised until it equals that of the third poorest. And so on until no oil wealth remains to be distributed. If oil wealth is large enough so that the income of all generations can be brought to the level of the richest generation (in the scenario without oil), the constraint that differentiates the CNM from the BM is not binding and both optimal consumption paths are the same (constant, equal to the annuity value of total wealth). Otherwise, the richest generations do not benefit from the oil wealth.

## 5 Oil Related Uncertainty

Characterizing the stochastic process that oil prices follow and evaluating the possibility of forecasting them are key ingredients when designing optimal fiscal policy rules for oil producing countries. For instance, recommendations regarding both the decision to adjust or finance a given price (terms of trade) shock and the design of an optimal oil stabilization fund depend of what is expected to happen with future prices, including their distribution. If each and every shock is regarded as

<sup>21</sup>The remaining parameter values are those of Figure 4.3.

For example, with several years of data, Videgaray (1998) finds mean reversion after allowing for a structural break in 1973.<sup>25</sup> Pindyck (1999) rejects the random walk null hypothesis using an ADF unit root test only after considering more than 70 years of data. Interestingly, he concludes that even with 120 years of data, permanent shocks do exist (although their size is considerably smaller than that of the transitory shocks). Finally, Bessembinder et al. (1995) find evidence of mean reversion using the future prices term structure.

The difficulty in rejecting the random walk hypothesis has led to more sophisticated models to describe oil prices. Rather than assuming reversion to a constant trend, Pindyck (1999) proposes a model in which both the constant and the trend are, in turn, non observable mean reverting stochastic processes. He estimates this model with a long sample of annual data using a Kalman Filter, and predicts prices 20 years ahead. Although no formal tests are provided, the forecasts appear to be better than those of a fixed trend AR(1) process. Of course, there is always the question of whether it is valid to use pre 1973 data to forecast future prices given the large structural break that took place at that time.

Schwartz (1997) also presents Kalman Filter estimates and formally compares the forecast capability of three alternative models for future and forward prices using high frequency data spanning 11 years. He considers a one factor model in which the (logarithm of the) oil price follows an AR(1) process, a two factor model in which the convenience yield is stochastic, and a three factor model in which a stochastic interest rate is also included. The estimation procedure he uses takes into account that the spot price, the convenience yield and the interest rate are not perfectly observable—thus the need of the Kalman Filter. The results he obtains indicate that including a second factor (the convenience yield) improves substantially the forecast capability of the model.

A simple random walk, an AR(1), and the models presented in Pindyck (1999) and Schwartz (1997) can be thought of as special cases of the following model:

$$p_t = \alpha_t + \delta_t \text{Trend}_t + \psi_t p_{t-1} + \varepsilon_t$$

where  $p_t$  is the log of the real oil price,  $\alpha_t$ ,  $\delta_t$  and  $\psi_t$  are possibly stochastic parameters,  $\text{Trend}_t$  is a time trend and  $\varepsilon_t$  is a stochastic stationary shock.

A random walk with drift assumes  $\alpha_t$  constant,  $\delta_t = 0$ , and  $\psi_t = 1$  (as well as  $\varepsilon$  white noise). An AR(1) assumes a constant  $\alpha_t$ , a constant  $\psi_t < 1$  and (possibly) a positive  $\delta_t$ .

More interestingly, Pindyck (1999) considers that both  $\alpha_t$  and  $\delta_t$  follow unobservable AR(1) stochastic processes with uncorrelated innovations. These processes are meant to represent reduced forms for the effects of demand, cost of extraction and available reserves shocks. Prices then would revert to a changing trend (level). Also, Schwartz (1997) considers the possibility that in his two

<sup>25</sup>He uses the Perron (1989) test which basically augments the standard Augmented Dickey-Fuller test to take into account structural breaks in levels and/or slope of a series.



### 5.2.2 Variance Ratio Test

The second type of test we consider to evaluate whether oil prices follow a non-stationary process is the Variance-Ratio (VR) Test. This test makes use of the linearly increasing volatility of a non-stationary process and evaluates whether the standard deviation measured at different horizons increases as predicted under the null of random walk. Furthermore, it gives a measure of the relative importance of transitory and permanent shocks.

In particular, the VR test calculates a statistic  $J(s)$ ,  $s = 1, 2, \dots, S$  that has the following properties.<sup>26</sup> As the sample size becomes large and  $s$  increases the ratio  $J(s)/s$  should converge to zero if the true process is stationary. If it does not converge to zero the process is non-stationary. Moreover, the value to which  $J(s)$  converges represents the standard error for long term forecasts. These properties hold as long as the sample size is large and  $s$  is considerably smaller than this sample size.

Figures 5.1 and 5.2 present the results of VR tests for the log of the oil price for two samples: 1957.I-1998.IV and 1974.I-1998.IV. In both cases the statistic  $J(s)/s$  does not converge to zero, showing that the shocks to the true process probably have some permanent effects. The size of these effects appears clearly smaller than the standard deviation of the innovations of a simple random walk estimated for each sample. This fact shows that shocks also have some transitory effects on prices, suggesting that it should be possible to do better, in terms of forecasting, than with a random walk.

One important limitation of these results is that the sample sizes we consider are not very large compared to  $s$ . In order to evaluate how this issue may affect the results the figures also present the results of a Montecarlo experiment considering a sample of equal size to what we consider in the calculations. These Montecarlo experiments are based on 1000 replications of a process that has the same standard deviation and parameters as the true data.

The results of these experiments show that, indeed, the small sample affects the performance of the test (for the sample sizes we consider). The statistic  $J(s)/s$  for a true random walk decreases instead of converging to a flat value. At the same time, a true AR(1) does not converge to zero for the values of  $s$  we consider (although it does not converge to a positive value either). These results, however, do not change our general interpretation of the process. Because the sample statistic decreases faster than for the random walk, we conclude that shocks do not have full permanent effects. And because it tends to converge to a positive value, we conclude that shocks do not have transitory effects only.

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<sup>26</sup>See Hamilton (1994) for further details.

this subsection we evaluate the out of sample forecast capabilities of 12 alternative linear models, a non-linear model, market future prices, and market forecasts.

We consider two alternative samples, one starting in 1974 and the other starting in 1986, and calculate the root mean square error (RMSE) of forecasts at 1 and 2 year horizons proceeding as follows. We estimate repeatedly each model using quarterly data (and weekly data in one case) ending in the second quarter of the years 1994 to 1998 and forecast out of the estimating sample. Then we compute the RMSE using the forecast errors at 1 and 2 years horizons. For each model we have 5 one-year ahead and 4 two-year ahead forecast errors.

The linear models we consider (for the logarithm of the real price of oil) are the following:

1. A random walk without drift.
2. A random walk with drift.
3. An ARIMA(2,1,2). This model is the equivalent of a random walk augmented by a stationary process for the error term  $\varepsilon_t$ .
4. Same as above with a dummy variable that take the value 1 during the invasion of Kuwait in 1991.
5. An AR(1) without drift (assuming that the process is stationary).
6. The permanent value of a Beveridge and Nelson decomposition of the series.<sup>28</sup>

Models 7 through 11 consider an AR(1) model with stochastic first-order autocorrelation,  $\psi_t$ , which is estimated using the Kalman Filter. The models differ in the assumptions they make on the process followed by  $\psi_t$  and whether they include a linear trend or not for the price process.

7. The price process has no trend and  $\psi_t$  follows a random walk with innovations orthogonal to those of the price process.
8. As 7 but with a trend in the price process.
9. The price process has no trend and  $\psi_t$  follows an AR(1) process with innovations that are orthogonal to oil price innovations (this model resembles model 2 of Schwartz, 1997).
10. As 9 but with a trend in the price process.

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<sup>28</sup>The Beveridge and Nelson decomposition identifies that permanent component of a series as the long run value at which the series would tend if there are no further shocks. It predicts future prices using a rolling ARIMA model ([2,1,2] in this case).

## 6.1 Income and Budget Uncertainty

Income uncertainty—the risk about future income realizations—can be incorporated easily into consumption models. If the instantaneous utility is quadratic, we have certainty-equivalence, and the results obtained in Section 4.2 need to be modified only slightly. For example, equations (18) and (19) become:

$$c_0 = (1 - \bar{\alpha})RE_o[W_0], \quad (25)$$

$$E_t[c_{t+1}] = [\beta R]c_t, \quad (26)$$

where  $E_t$  denotes expectations based on information available in period  $t$ . That is, all that changes is that uncertain quantities are replaced by their expected values. Of course, as mentioned in Section 3.2, this solution has the awkward property that current savings do not depend on the variance of future income.

In the more appealing case of a CES instantaneous utility, there does not exist a simple expression for  $c_0$ . The solution has to be found resorting to numerical methods. We propose instead an approximation to the optimal solution that is transparent and easily implementable. Of course, because it is an approximation it does not correspond exactly to the optimal solution.

Our procedure is based on a counterfactual experiment in which consumption decisions are made knowing that oil risk is diversified away in the near future, say that the oil industry will be privatized. This procedure allows us to simplify the consumption problem by collapsing all future periods in a single period and treating the overall problem as a two-period problem. Furthermore, assuming that the variance of oil price shocks is small, we can write a closed-form solution for consumption as a function of that variance and initial conditions.

More precisely, consider the period  $t$  optimal consumption decision knowing that the oil industry will be privatized in period  $t+1$ . Because in period  $t+1$  all income uncertainty is resolved, from that moment onwards the consumption problem is trivial: under the assumption  $\beta R = 1$  the solution is to consume the sum of the annuity values of the privatization proceeds and the financial assets available at that time. Assume, further, that oil risk is fully diversifiable in the world economy, so that the privatization proceeds equal the expected NPV of oil GDP conditional of the oil price observed in  $t+1$ . As of period  $t$ , the privatization proceeds is a random variable that depends on the oil price process. Moreover, it depends on the expected path of future oil prices.

Consider now the comparison of the optimal consumption decision of period  $t$ , knowing the oil price of that period, both under certainty equivalence (CE) and the optimal consumption level (given the actual volatility of the price process). The plan under CE corresponds to the POIM solution. The difference between the two consumption levels measures the precautionary savings motive.

has mean  $\mu_0 = \mu_{P,0}Q_0$  and variance  $\sigma_0^2 = \sigma_{P,0}^2Q_0^2$ . Finally, assume that initial population is  $N_0$  and growths at rate  $n$ .

Denote by  $c_0(\sigma_0^2, \sigma_v^2)$  the optimal period 0 per capita consumption level considering both types of uncertainty.<sup>32</sup> In the Appendix (Lemma B.1) we show that if  $\sigma_0^2$  and  $\sigma_v^2$  are small, this solution can be approximated by:

$$c_0(\sigma_0^2, \sigma_v^2) \simeq [1 - \Delta_{BU} - \Delta_{IU}] c_0(0, 0), \quad (29)$$

with

$$\begin{aligned} \Delta_{BU} &= -\frac{c^1(0, 0)}{c_0(0, 0)} \sigma_0^2, \\ \Delta_{IU} &= -\frac{c^2(0, 0)}{c_0(0, 0)} \sigma_v^2. \end{aligned}$$

Where  $c_0(0, 0)$  is initial consumption if there were no uncertainty and the superscripts denote derivatives with respect to argument  $j$  ( $j = 1, 2$ ).

In general, both correction factors comprise two components. One captures the precautionary motive and, as expected, is positive, so that resulting consumption is smaller than it would have been in the absence of this motive. The second component corresponds to an income effect due changes in initial wealth associated with variations in  $\sigma_0$  and  $\sigma_v$ . For example, if the price of oil follows a geometric random walk and the mean of the innovations  $v_t$  does not vary with  $\sigma_v$ , the present discounted value of oil income grows with  $\sigma_v$  at a rate  $\frac{1}{2}\sigma_v^2$ . On the other hand, if the drift of the random walk  $-\frac{1}{2}\sigma_v^2$  the negative drift cancels the effect of volatility on wealth and there is no income effect. Choosing between both alternatives is equivalent to deciding whether  $E_t[P_{t+1}] = P_t$  or  $E_t[\log P_{t+1}] = \log P_t$ , both cannot hold due to Jensen's inequality. Since forecasts based on the former are more precise and income effects can be much larger than what common sense would suggest,<sup>33</sup> we ignore income effects in what follows.<sup>34</sup>

Define  $\varphi$  as the present discounted value of future income  $\sum_{t=0}^{T-1} \beta^t Y_{t+1}$ . In the appendix we show that the correction factors  $\Delta_{BU}$  and  $\Delta_{IU}$  are given by:

$$\begin{aligned} \Delta_{BU} &= \frac{1}{2}(1 + \rho) \frac{\beta(r - n)^2}{(1 + n)N_0^2 c_0(0, 0)^2} \frac{\partial \text{Var}_0(Y_0 + E_1[\varphi])}{\partial \sigma_0^2} \Bigg|_{\sigma_v = \sigma_0 = 0} \sigma_0^2, \\ \Delta_{IU} &= \frac{1}{2}(1 + \rho) \frac{\beta^3(r - n)^2}{(1 + n)N_0^2 c_0(0, 0)^2} \frac{\partial \text{Var}_0(Y_0 + E_1[\varphi])}{\partial \sigma_v^2} \Bigg|_{\sigma_v = \sigma_0 = 0} \sigma_v^2. \end{aligned}$$

Where  $\rho$  is the coefficient of relative risk aversion. Both correction factors are proportional to the coefficient of relative prudence,  $1 + \rho$ .<sup>35</sup>

<sup>32</sup> $c_0$  also depends on  $\mu_0$  and  $F_0$ , but since these parameters remain constant in what follow they are omitted.

<sup>33</sup>Consumption after applying the correction factors can be much larger than under certainty equivalence!

<sup>34</sup>Expressions that include the income effect may be found in Proposition B.1 in the Appendix.

<sup>35</sup>See Kimball (1990).

the parameters of the baseline example. In this case  $\psi$  ranges from 0.9 to 1. When  $\psi < 1$  we use the formulae described in the Appendix. In all these cases we disregard any income effects arising from volatility by directly applying the correction factors to the zero variance consumption.

The results show that precautionary saving increases sharply with the persistence of shocks. When  $\psi$  is around 0.9, correction factors are almost one-tenth of what they are in the case of a random walk. Furthermore, this difference is clearly non-linear. When  $\psi$  is around 0.95, correction factors are about one-fourth of what they are when  $\psi = 1$ . ■

This key role for shock persistence in determining the importance of precautionary saving has been noted before (see, e.g., Skinner, 1988). It follows from the high sensitivity of wealth uncertainty to the degree of persistence in shocks, particularly in the neighborhood of a random walk.

**Example 6.3 (Precautionary Saving and Financial Assets)** Figure 6.2 shows the correction factors  $\Delta_{BU}$  and  $\Delta_{IU}$  for levels of initial financial assets  $F_0$  and the parameters of the baseline example. We have scaled  $F_0$  by initial production, so it ranges from -4 to 4.

As expected, financial assets accumulation makes less important precautionary saving. Because a larger portion of future consumption is secure when a country has more financial assets, precautionary saving decreases with  $F_0$ . In the example at hand, the correction factors drop by almost one third when financial assets increase from zero to four years of income. A similar pattern arises if one assumes that  $\psi = 0.9$ , although in this case correction factors are considerably smaller. ■

**Example 6.4 (Precautionary Saving and Resource Duration)** Figure 6.3 shows the correction factors  $\Delta_{BU}$  and  $\Delta_{IU}$  for different time horizons for resource exhaustion and the parameters of the baseline example.  $T$  varies from 5 to 105.

The results show that the correction factors increase quickly with  $T$  to stabilize around  $T = 40$ . The opposite happens if  $\psi = 0.9$  (case not reported). The intuition for the result is the following. Given an extraction rate, a longer duration represents a higher initial reserve level of the resource. This, in turn, represents higher total wealth, and less initial financial assets relative to total wealth. Thus, a longer duration produces an effect that is similar to having less financial assets. When  $\psi < 1$ , a longer duration has two effects. On the one hand, it produces the same effect of reducing the share of financial assets in total wealth. On the other hand, because  $\psi < 1$ , income that is very far in the future is almost secure income, having the same effect of a higher  $F_0$ . Figure 6.4 shows the correction factors for different  $T$  assuming the "intermediate" case  $\psi = 0.99$ . In this case the correction factors increase with  $T$  between 10 and 20-25 and decrease thereafter. ■

In deriving precautionary saving correction factors we have so far assumed that there is only one source of income, namely oil production. A more realistic representation of oil exporting countries should incorporate natural gas extraction. In order to do so we assume that the price of gas is linear

where  $c^*$  denotes the solution to the problem above when  $k = 0$  (see Proposition A.1) and  $l^* = \log c^*$ .

The second term in (32) captures the costs of adjusting while the first term corresponds to the welfare costs associated with deviating from the optimal expenditure level in the absence of adjustment costs.

As  $k$ , the constant  $\tilde{k}$  can take two values, one for expenditure reductions,  $\tilde{k}^-$ , and another for expenditure increases,  $\tilde{k}^+$ .

Proposition C.2 in the Appendix shows that there exist constants  $\alpha^-$  and  $\alpha^+$ , both between zero and one, such that a good approximation for the logarithm of optimal consumption at time 0 incorporating adjustment costs,  $l_0$ , consists of adjusting *partially* toward  $l^* \equiv \log c^*$ . Thus:

$$l_0 - l_{-1} = \alpha(l^* - l_{-1}),$$

where  $\alpha$  can take two values, one if consumption increases ( $\alpha^+$ ) and another when it decreases ( $\alpha^-$ ). The constants  $\alpha^+$  and  $\alpha^-$  are decreasing functions of  $\tilde{k}^+$  and  $\tilde{k}^-$ . The fraction of adjustment prescribed is larger when adjustment costs matter less. The adjustment speed also increases with  $\rho$ , since larger values of  $\rho$  imply a smaller elasticity of substitution of consumption over time and therefore a stronger incentive to smooth expenditure.

### 6.2.2 Eliciting Adjustment Costs

A key parameter in determining the velocity of the adjustment process is the size of adjustment costs. In Proposition C.3 in the Appendix we show that if a policymaker is indifferent between

- the adjustment cost associated this period with an *increase* in per capita expenditure of  $100 \times s_a$  percent

and

- the welfare improvement, in the absence of adjustment costs, associated with a  $100 \times s_{na}$  percent increase in per capita expenditure

then her value of  $\tilde{k}$  is given by

$$\tilde{k}^+ \simeq \frac{2s_{na}}{\rho s_a^2}.$$

A similar comparison, with a *decrease* in per capita expenditure in the first statement, leads to an analogous expression for  $\tilde{k}^-$ .<sup>36</sup>

It is recommended that the value of  $s_{na}$  in the exercise described above be chosen neither too large (because the approximations involved become less precise) nor too small (because it is harder to make the comparison that is required). Suggested values are in the range from 0.05 to 0.20.

<sup>36</sup>The question in the second statement continues being posed in terms of an *increase* in per-capita expenditure.

which often leads to a solution far from optimal.<sup>37</sup> Behind this type of rule is the notion that policymakers are able to distinguish transitory from permanent price shocks. Given the evidence revisited in section 5, this clearly is a very strong assumption.

There are a few studies that have designed optimal stabilization funds using numerical procedures and the POIM as the benchmark problem. For example, Arrau and Claessens (1991), Kletzer, Newbery and Wright (1990), and the collection of papers in Engel and Meller (1993) design optimal funds under alternative assumptions. However, extending the POIM to incorporate precautionary motives may have unappealing consequences, since this model ignores the path of private income, and therefore its correlation with oil income. In deriving the approximation for precautionary saving presented in this paper we have assumed that this correlation is zero (private income is constant). This clearly is a strong assumption that should be relaxed in future research.<sup>38</sup>

To illustrate this point we refer to an example discussed in section 4.2 in which oil and non-oil income were assumed to be perfectly negatively correlated. The precautionary motive suggests that the government should, on average, spend less in every period than it would in the certainty-equivalence case. Yet these additional savings serve no purpose in this case, since there is no uncertainty in *total* income. In general, when private sector income is ignored, as in the POIM, precautionary saving could differ significantly from what they would be if uncertainty in total income were considered.

The stabilization fund that follows the set of prescriptions derived in this paper is not different from an otherwise standard stabilization fund used in several countries. The only key difference is that the set of rules is relatively more complex, which allows for the implicit solution to be closer to the optimal one. In principle, the stabilization fund in this model corresponds to financial assets  $F_t$ , and the set of rules may include intergenerational distribution, budget and income uncertainty and adjustment costs. Thus, if fiscal policy follows the strategy we recommend here, it will implicitly act as a stabilization fund. Of course, this fund could be explicitly setup, easing transparency and accountability. The rules for operating the fund will be the counterpart of the proposed fiscal strategy.

One important issue regarding actual implementation of the optimal fiscal strategy is the treatment of fiscal investment. The model presented here does not include an explicit role for investment and assumes that all positive NPV projects are developed (probably by the private sector). However, at the same time, we have excluded any secondary source of credit for the government in order to obtain the expected results from the proposed fiscal strategy. In this setup the results of the model can be associated to the maximum non-oil sector deficit that should be financed by

<sup>37</sup>For a criticism of the Chilean Copper Stabilization Fund along these lines see Basch and Engel 1993).

<sup>38</sup>The CNM is an attempt to incorporate non-oil income into the analysis, but it does so without considering the effects of uncertainty.

particular result closer to the optimal one. Of course, because they are approximations, they do not represent the optimal solution itself. Our current research is intended to evaluate how accurate are these proposed approximations, both the expansion around the certainty equivalence solution and the assumption of one-period-ahead diversification.

The paper has derived fiscal prescriptions both under the assumption that the oil price follows a geometric random walk process and a AR(1) process (in logs). However, the evidence revisited and new econometric evidence provided show that the geometric random walk assumption appears to be a more sensible representation. Yet it should be stressed that the framework we developed makes use of this assumption only partially. In the proposed setup, budget uncertainty allows us to include next year expected future price (more precisely, its mean and variance) which could be different from the actual current price. The random walk assumption is binding only two periods into the future.

Another important assumption behind the approach followed here to study the effects of uncertainty is that the POIM is an adequate description of the problem faced by the government. This is equivalent to assume that non-oil income is uncorrelated with oil (and gas) income. Future research should incorporate the possibility of a non-zero correlation between both types of income.

For simplicity, the proposed fiscal strategy was developed assuming an annual frequency, since we made the implicit assumption that the government could not revise the budget during the budget year.<sup>41</sup> This assumption can be easily relaxed reinterpreting the data frequency conveniently. Furthermore, without changing frequency, the model could be used during the current fiscal year if new information becomes available and the political process allows for adjustments in the budget. Yet such an exercise would necessarily have to be of the once-and-for-all type, since recurrent revisions would modify the model (or, at least, the appropriate data frequency).

Finally, the proposed approach has implicit a stabilization fund which could be explicitly setup for transparency and accountability purposes. There are two key ingredients for this fund to work properly. First, it should follow a set of accumulation rules that implement the proposed fiscal strategy. And second, it imposes strong restrictions to other forms of government financing so that what the fund accumulates actually reflects changes in the net fiscal asset position.

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<sup>41</sup>The are good political economy arguments to maintain this procedure. In particular, there could be important asymmetries in the way the political process reacts to positive and negative shocks.



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**Proof** From Lemma 1, the optimal choices of  $c_{P,t}$  and  $c_{G,t}$  must satisfy

$$u(c_{P,t}, c_{G,t}) = \left( \frac{(1 + k^{1/\gamma})^\gamma}{1 - \gamma} \right)^{1/(1-\gamma)} c_t.$$

Substituting this expression for  $u_t$  in (33) completes the proof. ■

**Proposition A.1** Consider the intertemporal consumption allocation problem

$$\max_{c_t} \frac{1}{1-\rho} \sum_{t \geq 0} \beta^t (1+n)^t c_t^{1-\rho}$$

subject to the intertemporal dynamic budget constraint

$$F_{t+1} = R[F_t + Y_t - C_t], \quad (34)$$

where  $C_t = c_t N_t$ ,  $N_t = (1+n)^t$ ,  $Y_t = Y_{P,t} + Y_{G,t}$ , and  $N_0 = 1$ . Initial assets ( $F_0$ ) and the complete future stream of income,  $Y_0, Y_1, Y_2, \dots$  are known at time 0.

Then optimal per capita consumption at time 0 is

$$c_0 = (1 - \tilde{\alpha})W_0$$

and the optimal consumption path satisfies

$$c_{t+1} = [\beta R]^{1/\rho} c_t, \quad (35)$$

$$C_{t+1} = \alpha C_t, \quad (36)$$

where  $\alpha = (1+n)[\beta R]^{1/\rho}$ ;  $\tilde{\alpha} = \alpha/R$ , and

$$W_0 \equiv F_0 + \sum_{s \geq 0} R^{-s} [Y_{G,s} + Y_{P,s}].$$

Furthermore, the period  $t$  current account of this economy is given by

$$CA_t = \left[ 2 - \frac{1}{R} \right] (Y_t - C_t) + \left[ 1 - \frac{1}{R} \right] F_t. \quad (37)$$

**Proof** We first derive the slope of the consumption path and then the initial consumption level.

Using  $N_t = (1+n)^t N_0$  and  $C_t = c_t N_t$  it is possible to rewrite the objective function as

$$\max_{c_t} \frac{1}{(1-\rho)N_0^{1-\rho}} \sum_{t \geq 1} [\beta(1+n)^\rho]^t c_t^{1-\rho}.$$

Using the dynamic budget constraint  $F_{t+1} = R[F_t + Y_t - C_t]$  the problem becomes

$$\max_{F_t} \frac{1}{(1-\rho)N_0^{1-\rho}} \sum_{t \geq 0} [\beta(1+n)^\rho]^t \left[ F_t + Y_t - \frac{F_{t+1}}{R} \right]^{1-\rho}.$$

3. Use oil wealth to raise the income of generation  $k$  until it equals that of generation  $(k + 1)$  or until it is exhausted, whichever happens first.
4. If 3 does not exhaust the oil wealth, increase  $k$  by 1 and return to 3. Otherwise, the resulting distribution of oil wealth solves the CNM.

**Proof** The algorithm ends because we assumed that the solution to the BM violates the constraints of the CNM. The remainder of the proof is straightforward. ■

## B Precautionary saving

The following results consider the setup described in section 6.1.1.

**Lemma B.1** Denote by  $c_0(\sigma_0^2, \sigma_v^2; F_0, \mu_0)$  the solution for optimal per capita consumption as a function of initial financial assets and parameters characterizing the distribution of future income. In what follows  $F_0$  and  $\mu_0$  remain fixed and are therefore omitted. Assuming  $c_0(\sigma_0^2, \sigma_v^2)$  has continuous second order partial derivatives, we have that

$$c_0(\sigma_0^2, \sigma_v^2) = [1 - \Delta_{BU} - \Delta_{IU}] c_0(0, 0) + \mathcal{O}(\sigma^4), \quad (38)$$

with

$$\Delta_{BU} = -\frac{c^1(0, 0)}{c_0(0, 0)} \sigma_0^2, \quad (39)$$

$$\Delta_{IU} = -\frac{c^2(0, 0)}{c_0(0, 0)} \sigma_v^2. \quad (40)$$

Where the superscripts denote derivatives with respect to argument  $j$  ( $j = 1, 2$ ),  $\sigma = \max(\sigma_v, \sigma_0)$ , and  $\mathcal{O}(\sigma^4)$  denotes a term of order  $\sigma^4$ .

**Proof** By continuous second order partial derivatives we mean that  $c_0^{11}$ ,  $c_0^{22}$  and  $c_0^{12}$  are well defined and continuous. The result then follows from taking a first order Taylor expansion of  $c_0(\sigma_0^2, \sigma_v^2)$  around  $(0, 0)$ . ■

**Corollary B.1** Assume that an increase in uncertainty (that is, either an increase in  $\sigma_0$  or  $\sigma_v$ ) does not affect initial wealth,<sup>44</sup> so that  $c_0^{CE}(\sigma_0^2, \sigma_v^2) = c_0^{CE}(0, 0)$ , where  $c_0^{CE}$  denotes optimal per capita consumption under certainty equivalence and the arguments are the same as in the preceding proposition. Then

$$c_0(\sigma_0^2, \sigma_v^2) = [1 - \Delta_{BU} - \Delta_{IU}] c_0^{CE}(\sigma_0^2, \sigma_v^2) + \mathcal{O}(\sigma^4), \quad (41)$$

with  $\Delta_{BU}$ ,  $\Delta_{IU}$  and  $\mathcal{O}(\sigma^4)$  defined above.

<sup>44</sup>This holds, for example, when the price of oil follows a geometric random walk with drift such that  $E_t[P_{t+1}] = P_t$ .

Next we spell out the details. Since all income uncertainty is eliminated in period 1, optimal consumption at that point in time will be equal to certainty equivalent consumption, so that (42) implies that

$$\bar{c}(\sigma_v^2) \equiv c_1 = \frac{r-n}{RN_1} \{F_1 + E_1[\varphi]\}.$$

Substituting the budget constraint (34) and rearranging terms leads to:

$$\bar{c}(\sigma_v^2) = \frac{r-n}{1+n} \left[ \frac{F_0 + Y_0}{N_0} - c_0(\sigma_v^2) + \frac{1}{RN_0} E_1[\varphi] \right].$$

It follows that:

$$\bar{\mu} \equiv E_0[\bar{c}(\sigma_v^2)] = \frac{r-n}{(1+n)N_0} [F_0 + Y_0 + \beta E_0[\varphi] - N_0 c_0(\sigma_v^2)], \quad (45)$$

$$\bar{\sigma}^2 \equiv \text{Var}_0[\bar{c}(\sigma_v^2)] = \frac{(r-n)^2}{(1+n)^2 N_0^2} \beta^2 \text{Var}_0(E_1[\varphi]). \quad (46)$$

The usual Euler equation for this problem is:

$$u'(c_0(\sigma_v^2)) = E_0[u'(\bar{c}(\sigma_v^2))],$$

which, after taking a second order Taylor expansion on the right hand side around  $\bar{\mu}(\sigma_v^2)$ , becomes

$$u'(c_0(\sigma_v^2)) \simeq u'(\bar{\mu}(\sigma_v^2)) + \frac{1}{2} u'''(\bar{\mu}(\sigma_v^2)) \bar{\sigma}^2(\sigma_v^2).$$

Implicitly differentiating the latter (approximate) identity with respect to  $\sigma_v^2$ , evaluating at  $\sigma_v^2 = 0$  and noting that  $\bar{\mu}(0) = c_0(0)$  and  $\bar{\sigma}^2(0) = 0$  leads to

$$u''(c_0(0)) c_0'(0) \simeq u''(c_0(0)) \bar{\mu}'(0) + \frac{1}{2} u'''(c_0(0)) \frac{\partial \bar{\sigma}^2}{\partial \sigma_v^2}(0), \quad (47)$$

where  $\bar{\mu}'$  and  $\partial \bar{\sigma}^2 / \partial \sigma_v^2$  denote the derivatives of  $\bar{\mu}$  and  $\bar{\sigma}^2$  with respect to  $\sigma_v^2$ . Substituting (45) and (46) in (47) and rearranging terms leads to (44). ■

**Corollary B.2** *Under the same assumptions (and notation) of the preceding proposition, in the case where certainty equivalent consumption does not depend on  $\sigma_0^2$  and  $\sigma_v^2$ , we have:*

$$\Delta_{BU} = \frac{1}{2}(1+\rho) \frac{\beta(r-n)^2}{(1+n)N_0^2 c_0(0,0)^2} \frac{\partial \text{Var}_0(Y_0 + E_1[\varphi])}{\partial \sigma_0^2} \Bigg|_{\sigma_v = \sigma_0 = 0} \sigma_0^2, \quad (48)$$

$$\Delta_{IU} = \frac{1}{2}(1+\rho) \frac{\beta^3(r-n)^2}{(1+n)N_0^2 c_0(0,0)^2} \frac{\partial \text{Var}_0(Y_0 + E_1[\varphi])}{\partial \sigma_v^2} \Bigg|_{\sigma_v = \sigma_0 = 0} \sigma_v^2. \quad (49)$$

It follows that

$$\text{Var}[w] = \sum_i c_i^2 (e^{2a_i^2\sigma^2} - e^{a_i^2\sigma^2}) + 2 \sum_{i < j} c_i c_j (e^{\frac{1}{2}(a_i+a_j)^2\sigma^2} - e^{\frac{1}{2}(a_i^2+a_j^2)\sigma^2}).$$

Differentiating the above expression with respect to  $\sigma^2$  and evaluating at  $\sigma^2 = 0$  leads to (52). ■

**Proposition B.2** Assume that the logarithm of the price process follows a first order autoregressive process:

$$\log P_t - \mu = \psi(\log P_{t-1} - \mu) + v_t,$$

with the  $v_t$ 's i.i.d. normal with mean  $\mu_v$  and variance  $\sigma_v^2$ . We ignore the income effect associated with changes in  $\sigma_0$  and  $\sigma_v$ . The remainder of the setup is the same as in section 6.1.1.

Then, if  $\psi = 1$  the correction factors are given by:

$$\Delta_{BU} = \frac{1}{2}(1 + \rho) \frac{R}{(1 + n)} \left\{ 1 + \frac{1 - \beta(1 + g)}{1 - \beta^{T+1}(1 + g)^{T+1}} \left[ \frac{F_0}{\mu_0} \right] \right\}^{-2} CV_0^2, \quad (53)$$

$$\Delta_{IU} = \frac{1}{2}(1 + \rho) \frac{\beta(1 + g)^2}{(1 + n)} \left\{ \frac{1 - \{\beta(1 + g)\}^T}{[1 - \beta(1 + g)]^{\frac{F_0}{\mu_0} + 1 - \{\beta(1 + g)\}^{T+1}}} \right\}^2 \sigma_v^2, \quad (54)$$

where  $CV_0 = \sigma_0/\mu_0$ .

If  $\psi < 1$  the correction factors are given by:

$$\Delta_{BU} \simeq \frac{1}{2}(1 + \rho) \frac{R}{(1 + n)} \left\{ \frac{\sum_{s=0}^T [\beta\psi(1 + g)]^s \exp[(1 - \psi^s)(\mu - \log \mu_{P,0})]}{\frac{F_0}{\mu_0} + \sum_{s=0}^T [\beta(1 + g)]^s \exp[(1 - \psi^s)(\mu - \log \mu_{P,0})]} \right\}^2 CV_0^2, \quad (55)$$

$$\Delta_{IU} \simeq \frac{1}{2}(1 + \rho) \frac{R}{(1 + n)\psi^2} \left\{ \frac{\sum_{t=1}^T [\beta\psi(1 + g)]^t \exp[(1 - \psi^t)(\mu - \log \mu_{P,0})]}{\frac{F_0}{\mu_0} + \sum_{s=0}^T [\beta(1 + g)]^s \exp[(1 - \psi^s)(\mu - \log \mu_{P,0})]} \right\}^2 \sigma_v^2. \quad (56)$$

**Proof** We derive (55), of which (53) is a particular case.<sup>47</sup> The derivation of (54) and (56) is analogous. From (49) it follows that to derive (55) it suffices to calculate  $c_0(0, 0)$  and  $\partial \text{Var}_0(E_1[\varphi]) / \partial \sigma_v^2$  evaluated at  $\sigma_0^2 = \sigma_v^2 = 0$ .

From (42) and a slight modification of (51), evaluated at  $\sigma_0 = \sigma_v = 0$ , we have:

$$c_0(0, 0) = \frac{r - n}{RN_0} \left\{ F_0 + \mu_0 + \mu_0 \sum_{t=0}^{T-1} [\beta(1 + g)]^{t+1} e^{(1 - \psi^{t+1})(\mu - \log(P_0))} \right\}$$

and hence

$$c_0(0, 0) = \frac{r - n}{RN_0} \left\{ F_0 + \mu_0 \sum_{s=0}^T [\beta(1 + g)]^s e^{(1 - \psi^s)(\mu - \log(P_0))} \right\}. \quad (57)$$

<sup>47</sup>Strictly speaking, L'Hopital's rule must be invoked to go from (55) to (53).

where  $f^O = Q_0^O / (Q_0^O + \alpha_1 Q_0^G)$ ,  $f^G = 1 - f^O$  and  $\text{Var}_0$  is with respect to the distribution of  $Y_0$ , assuming  $\sigma_v = 0$ , and

$$\left. \frac{\partial \text{Var}_0(E_1[\varphi])}{\partial \sigma_v^2} \right|_{\sigma_v = \sigma_0 = 0} = \left\{ Q_1^O \frac{1 - [\beta(1 + g^O)]^{T^O}}{1 - \beta(1 + g^O)} + \alpha_1 Q_1^G \frac{1 - [\beta(1 + g^G)]^{T^G}}{1 - \beta(1 + g^G)} \right\}^2 (P_0^O)^2. \quad (61)$$

where  $\text{Var}_0$  is with respect to the distribution of  $P_1$  conditional on  $P_0$ , assuming  $\sigma_0 = 0$ .

Expressions (60) and (61) can be used to calculate  $c_0^1(0, 0)$  and  $c_0^2(0, 0)$  so as to apply Corollary B.2 to find an approximation for  $c_0(\sigma_0^2, \sigma_v^2)$ . ■

**Proof** The derivation of (59) is similar to that of (42) because of linearity of the expectations operator. Since the proofs of (61) and (60) are similar, we only provide the latter.

Linearity of the expectations operator and (51) lead to

$$\text{Var}_0(Y_0 + \beta E_1[\varphi]) = \left\{ Q_0^O \frac{1 - [\beta(1 + g^O)]^{T^O+1}}{1 - \beta(1 + g^O)} + \alpha_1 Q_0^G \frac{1 - [\beta(1 + g^G)]^{T^G+1}}{1 - \beta(1 + g^G)} \right\}^2 \sigma_{P,0}^2. \quad (62)$$

Since

$$\begin{aligned} \sigma_0^2 &= \text{Var}[Y_0] \\ &= \text{Var}[P_0^O Q_0^O + (\alpha_0 + \alpha_1 P_0^O) Q_0^G] \\ &= \text{Var}[P_0^O Q_0^O + \alpha_1 P_0^O Q_0^G] \\ &= [Q_0^O + \alpha_1 Q_0^G]^2 \sigma_{P,0}^2, \end{aligned}$$

the expression obtained in (62) leads to

$$\text{Var}_0(Y_0 + \beta E_1[\varphi]) = \left\{ f^O \frac{1 - [\beta(1 + g^O)]^{T^O+1}}{1 - \beta(1 + g^O)} + f^G \frac{1 - [\beta(1 + g^G)]^{T^G+1}}{1 - \beta(1 + g^G)} \right\}^2 \sigma_0^2. \quad (63)$$

Differentiating the latter identity with respect to  $\sigma_0^2$  yields (60). ■

## C Adjustment Costs

**Proposition C.1** Consider the optimal consumption problem with certain income:

$$\max_{c_t} \sum_{t \geq 0} \tilde{\beta}^t [u(c_t) - k(l_t - l_{t-1})^2], \quad (64)$$

$$\text{s.t.} \quad \sum_{t \geq 0} \beta^t C_t = W_0, \quad (65)$$

where  $\beta$  denotes the subjective discount rate, which is assumed equal to the inverse of the gross interest rate ( $R\beta = 1$ ), population in period  $t$  is  $N_t = (1 + n)^t$ ,  $\tilde{\beta} = \beta(1 + n) < 1$ ,  $C_t$  denotes period

**Proof** This is a well known result, see, for example, Rotemberg (1982) for a considerably more general case. The lower and upper bounds for  $\alpha$  in (72) follow from showing that  $\alpha$  is increasing in  $\tilde{\beta}$  and evaluating  $\alpha$  at  $\tilde{\beta} = 0$  and  $\tilde{\beta} = 1$ . ■

**Corollary C.1** *Since there is no income uncertainty, the two preceding propositions can be easily extended to the case of asymmetric quadratic adjustment costs, so that:*

$$\text{Cost of adjusting from } l_{-1} \text{ to } l_0 = \begin{cases} k^+(l_t - l_{t-1})^2, & \text{if } l_t > l_{t-1}, \\ k^-(l_t - l_{t-1})^2, & \text{if } l_t < l_{t-1}. \end{cases}$$

Now there will be two values for  $\tilde{k}$ ,  $\tilde{k}^+$  and  $\tilde{k}^-$ , depending on whether per capita consumption increases or decreases. Both of them can be obtained from an expression analogous to (67). The optimal policy continues being of partial adjustment, but the speed of adjustment now depends on whether per capita consumption increases ( $\alpha^+$ ) or decreases ( $\alpha^-$ ). Expressions for  $\alpha^+$  and  $\alpha^-$  are obtained by substituting  $\tilde{k}^+$  and  $\tilde{k}^-$  in (70).

**Proof** Straightforward. ■

**Proposition C.3** *In the setting of the preceding corollary, being indifferent between*

- *the adjustment cost associated this period with an increase in per capita expenditure of  $100 \times s_a$  percent*

*and*

- *the welfare improvement, in the absence of adjustment costs, associated with a  $100 \times s_{na}$  percent increase in per capita expenditure*

*implies that*

$$\tilde{k}^+ \simeq \frac{2s_{na}}{\rho s_a^2}. \quad (73)$$

*A similar comparison, with a decrease in per capita expenditure in the first statement, leads to an analogous expression for  $\tilde{k}^-$ .*

**Proof** The welfare loss associated with the first statement is equal to  $ks_a^2$ , where we are using the equivalence result in Proposition C.1.

Let  $c > c_0$  denote the two per capita consumption levels mentioned in the second statement, and  $l$  and  $l_0$  their logarithms. Then

$$\begin{aligned} u(c) - u(c_0) &\simeq u'(c_0)(c - c_0) \\ &= u'(c_0) [e^l - e^{l_0}] \\ &\simeq u'(c_0) e^{l_0} (l - l_0) \\ &= u'(c_0) c_0 s_{na}. \end{aligned}$$

TABLE 5.1

ADF AND PP TESTS

	1957.I-1999.II	1974.I-1999.II	1986.I-1999.II
ADF no trend	-1.77	-2.60*	-3.42**
ADF with trend	-1.69	-3.83**	-3.52***
PP no trend	-1.65	-2.56	-3.93***
PP with trend	-1.52	-4.57***	-4.25***

Note: \*, \*\*, and \*\*\* = significant at 10, 5, and 1% respectively.

TABLE 5.2

P-VALUES NON-LINEAR ADJUSTMENT TEST

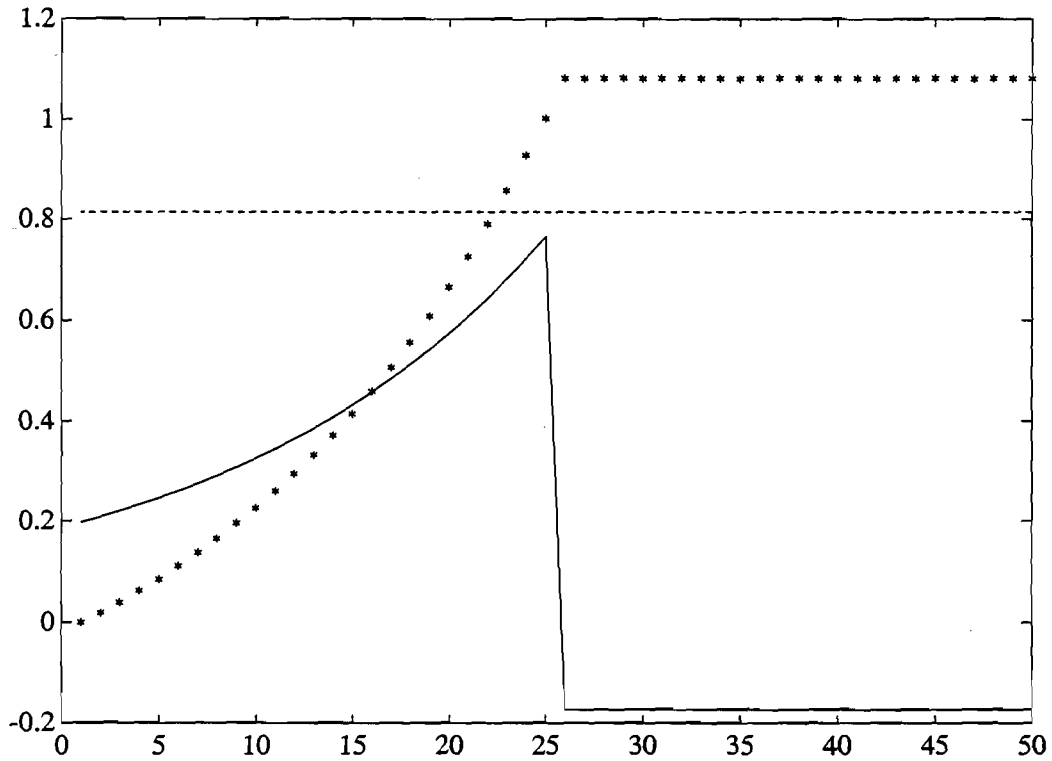
	1957.I-1999.II	1974.I-1999.II	1986.I-1999.II
$d = 1$	0.12 (1)	0.02 (1)	0.10 (1)
$d = 2$	0.56 (1)	0.14 (1)	0.19 (2)
$d = 3$	0.40 (1)	0.40 (1)	0.12 (2)

Note: In parenthesis the value of  $k$  that yields white noise.



FIGURE 4.1

Consumption, current account and financial assets with constant non-oil production

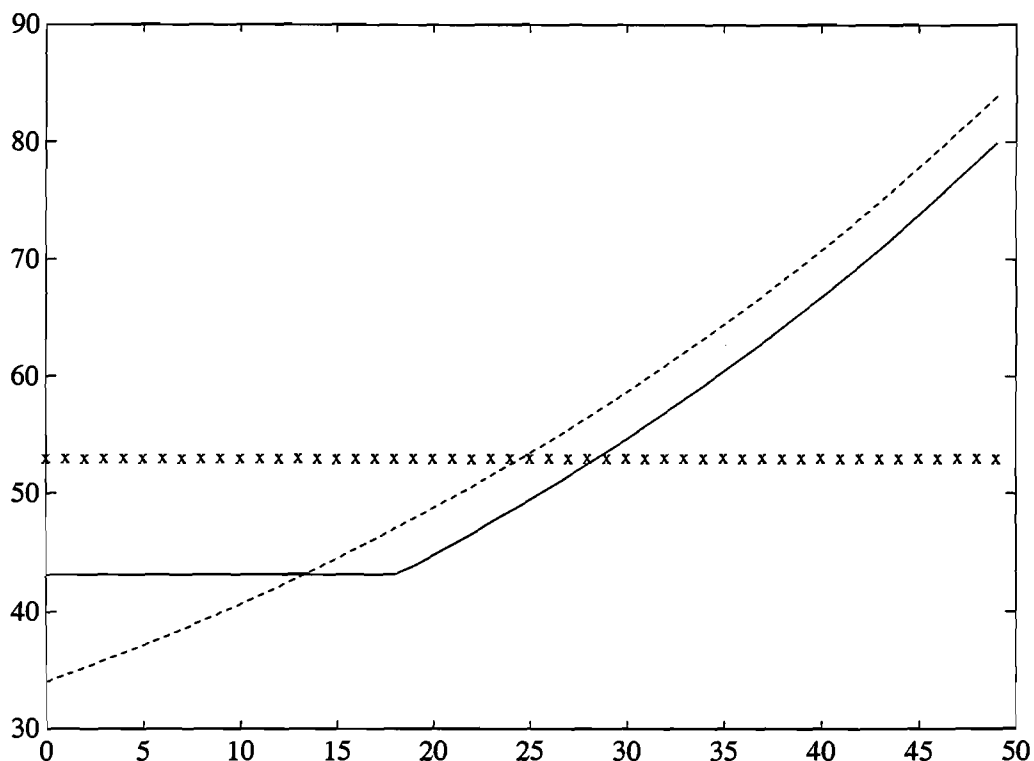


**Note to Figure 4.1:** The figure shows the optimal paths of normalized consumption (- - -), normalized financial assets (\*\*\*) and the current account as a fraction of GDP (—) under the assumptions of the benchmark model.

The following assumptions are made: no population growth ( $n = 0$ ),  $R = 1.06$ ,  $\beta R = 1$ , no initial financial assets ( $W_1 = 0$ ), the optimal mix of the public and private goods requires that the former represent 20% of total consumption, initial oil production, which accrues to the government, accounts for 80% of GDP, while the remaining 20% is produced by the private sector. Oil production remains constant (in real terms) for 25 periods, moment at which oil reserves are exhausted. Production in the non-oil sector remains constant indefinitely.

FIGURE 4.3

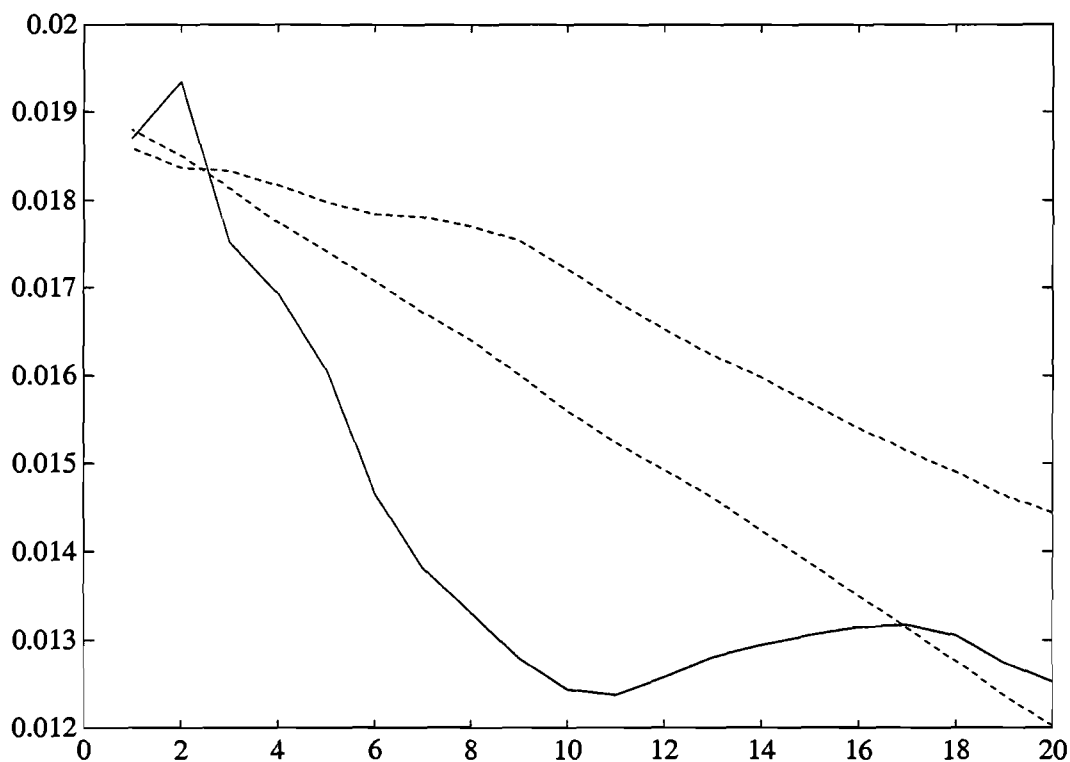
Optimal Consumption Path for Alternative Models with Increasing Non-Oil GDP



**Note to Figure 4.3:** The figure shows the optimal paths of consumption for the Benchmark Model (xxx), the Permanent Oil Income Model (- - -) and the Conditionally Normative Model (—). Parameter values: no population growth;  $R = 1.04$ ,  $\beta R = 1$ , initial oil wealth: 100; initial non-oil GDP: 30; non-oil GDP grows 2% per period for 50 periods and then remains constant forever.

FIGURE 5.1

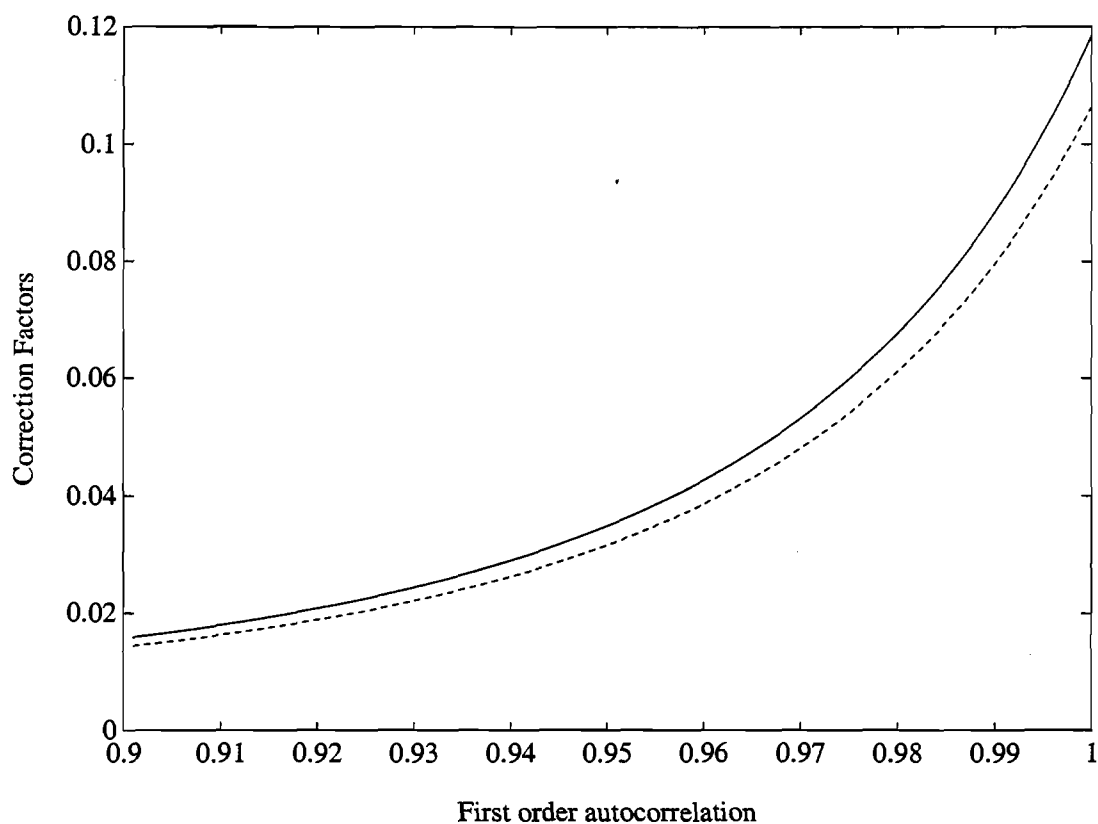
Variance Ratio Test: 1957-1998



**Note to Figure 5.1:** The figure shows the results of the Variance Ratio tests for the sample 1957-1998 [solid line (—)]. The dashed lines (- - -) show the results of a Montecarlo exercise (with 1000 replications) assuming that the true process is a geometric random walk and a AR(1) with autoregressive coefficient equal to the sample estimate.

FIGURE 6.1

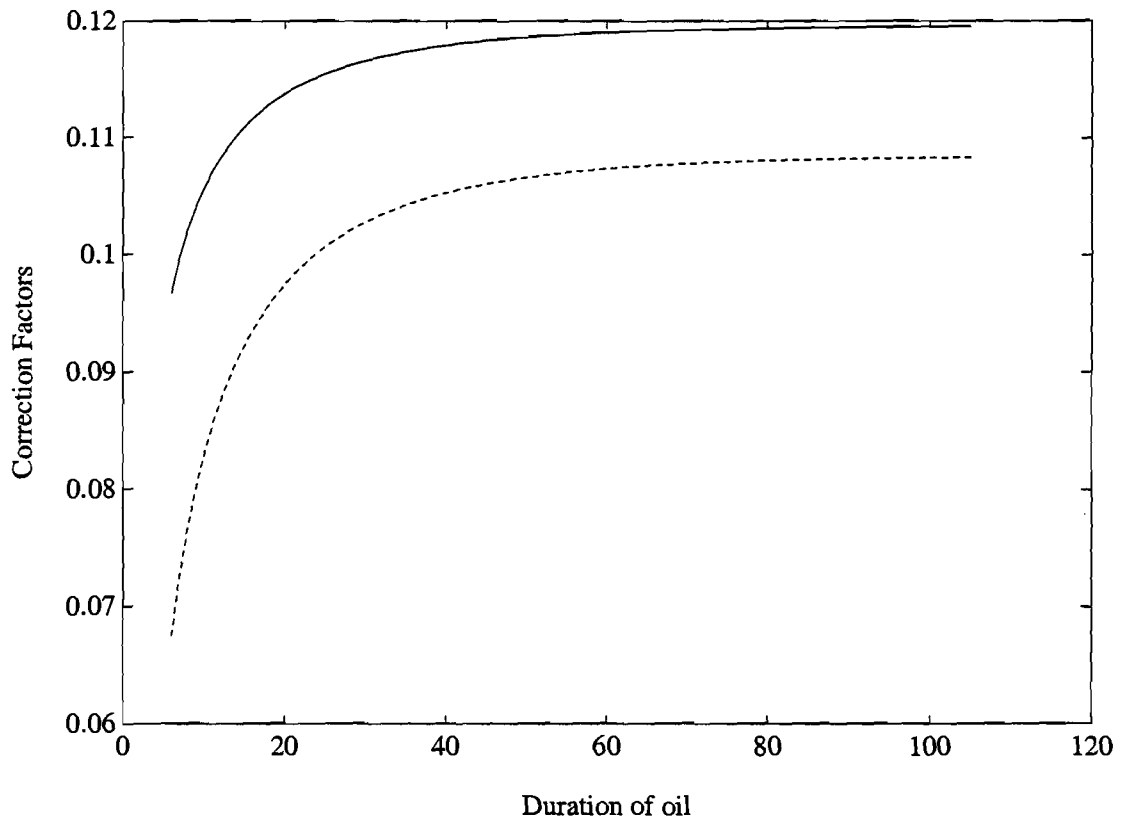
Correction Factors and Shock Persistence



Note to Figure 6.1: The figure shows the correction factors  $\Delta_{BU}$  (—) and  $\Delta_{IU}$  (- - -) for different autoregressive coefficients  $\psi$ . The rest of the parameters correspond to those of example 6.1.

FIGURE 6.3

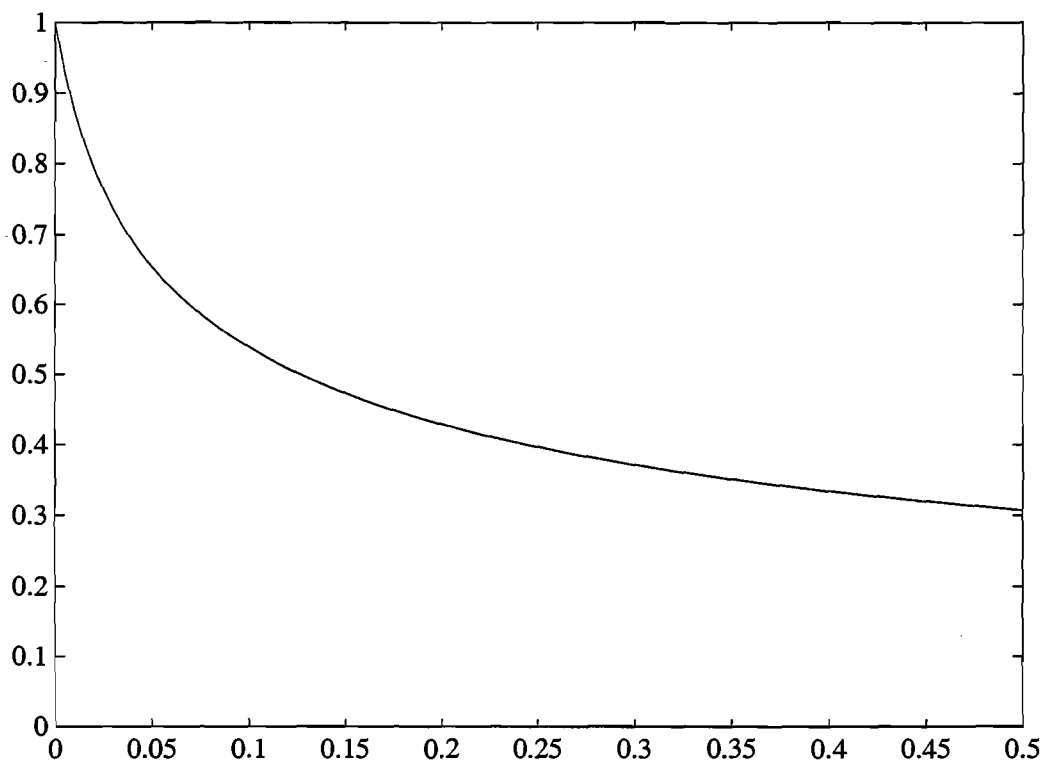
Correction Factors and Resource Duration



Note to Figure 6.3: The figure shows the correction factors  $\Delta_{BU}$  (—) and  $\Delta_{IU}$  (- - -) for different resource duration  $T$ . The rest of the parameters correspond to those of example 6.1.

FIGURE 6.5

Partial Adjustment Coefficient and Adjustment Cost



**Note to Figure 6.5:** The figure shows the partial adjustment coefficient for different values of the adjustment cost ( $s_{na}$ ) for an adjustment ( $s_a$ ) of 0.20. The rest of the parameters correspond to those of example 6.5.

**COORDINACIÓN DE POLÍTICAS MONETARIA Y FISCAL  
BAJO INSTITUCIONES QUE LIMITAN SU ACTUACIÓN**

**Rafael Gamboa \***

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\* Banco de México. Las opiniones expresadas y errores cometidos son completamente atribuibles al autor y no necesariamente son compartidas por la institución en que labora. Versión preliminar. Se agradecen todos los comentarios a: [rgamboa@banxico.org.mx](mailto:rgamboa@banxico.org.mx)

Este artículo analiza la coordinación que deben tener los responsables de las políticas monetaria y fiscal ante reglas o instituciones que impongan restricciones al uso discrecional de alguna de estas políticas. El artículo presenta los instrumentos y objetivos de cada una de estas políticas, en ausencia de restricciones. De la revisión de la literatura y, concentrándose en la estabilización macroeconómica de corto plazo, en este trabajo se establece la asignación de objetivos que corresponde a cada autoridad. Posteriormente, se analizan los efectos que tiene cada una de estas políticas sobre la otra, con base en el caso de México. Derivado de los efectos que tiene una política sobre los instrumentos o los objetivos de la otra, se desprende la necesidad de que se coordinen los responsables. En la tercera sección, se revisan algunas instituciones que constriñen a la política monetaria y lo que ello implica para la mejor actuación de la política fiscal, y viceversa. En particular, se revisan regímenes cambiarios y las reglas que establecen límites al déficit o la deuda. Se concluye con una evaluación de las alternativas más viables en la actualidad.

### **1. Instrumentos y Objetivos de las políticas**

Blanchard y Fischer (1989) señalan que la política fiscal tiene como instrumentos para realizar su operación el nivel de gasto público y cómo se financia éste, ya sea con impuestos, préstamos o imprimiendo billetes. Por su parte, la política monetaria tiene control sobre la oferta de dinero, y a través de ésta, determina las tasas de interés y el tipo de cambio. Se podría agregar a la lista de instrumentos de política fiscal la composición del gasto del gobierno (Frenkel y Razin, 1987, y Alesina y Perotti, 1997).

Con los instrumentos antes mencionados, la política fiscal tiene como posibles objetivos: cubrir los servicios y proveer los bienes que no ofrecen los privados minimizando las distorsiones que requiera su financiamiento; mejorar la distribución del ingreso; estabilizar la economía; promover el crecimiento económico (Tanzi, ¿?); contribuir a alcanzar un nivel de déficit de cuenta corriente o de ahorro interno, así como un cierto tipo de cambio real.

Por su parte, entre los objetivos que en la literatura se han señalado para la política monetaria se encuentran: el mantener un nivel de precios o de inflación; controlar la expansión de la demanda agregada de acuerdo a la capacidad productiva del país; asegurar un tipo de cambio determinado, ya sea como un valor dado o una banda dentro de la cual éste se puede mover libremente; así como procurar que se logre un equilibrio u objetivo en la cuenta corriente o en el ahorro interno.

La tarea fundamental de todo gobierno es proveer bienes y servicios que el sector privado no aportaría, cuando menos en una cantidad suficiente. La intervención del sector público puede contribuir a que se alcance una producción eficiente de bienes en aquellas funciones en que existen fallas de mercado. Generalmente, el gobierno debe recurrir a impuestos que alteran las decisiones tomadas por los agentes. Dichas distorsiones en la recaudación de impuestos representan un costo para la sociedad al que el gobierno tiene que agregar los recursos utilizados para producir y distribuir un bien o servicio para decidir si conviene a la sociedad que el Estado lo provea o si el beneficio colectivo es mayor dejándolo a un privado o careciendo de éste. De lo anterior, la autoridad fiscal debe evaluar cuáles son aquellas funciones que debe atender el sector público y determinar la forma menos distorsionante en que debe financiarse.

Las autoridades fiscales deben recoger el mandato de la sociedad en cuanto a la redistribución del ingreso que debe efectuar. Para ello, debe adecuar el diseño de los impuestos y la selección de sus



situación difícil, se puede registrar una repentina y drástica disminución en los flujos de inversión al país. Los cambios súbitos en los flujos de ahorro externo son la razón de más peso para limitar el déficit de cuenta corriente. En conclusión, un moderado déficit de cuenta corriente para países con escasez relativa de capital parece ser un objetivo de política adecuado. La política fiscal puede reducir el ahorro externo sustituyéndolo por ahorro interno.<sup>2</sup> Cuando se aborde la coordinación entre las políticas fiscal y monetaria seremos más explícitos acerca de cómo estas políticas pueden disminuir el déficit en cuenta corriente.

Por lo que concierne a la política monetaria, su instrumento le confiere particular relevancia sobre el nivel de precios. Si bien es cierto que el nivel de precios depende de otros factores y políticas (entre las que destaca la fiscal), ningún otro factor puede alterarlo en cualquier momento y en una magnitud similar. El que el control sobre el nivel de precios y su incremento, la inflación, requiera del control de la oferta monetaria hace que éste sea un objetivo natural de la política monetaria. Más adelante abordaremos cómo es que la política fiscal influye en la determinación del nivel de precios, por ahora baste decir, que la autoridad monetaria requiere considerar los factores que determinan la demanda por dinero y aquellos de la oferta que no están bajo su control para determinar la inflación. La demanda de dinero se determina por el nivel de transacciones que la gente quiera realizar, la cantidad que quiera guardar en sus bolsillos o bajo el colchón para hacer frente a gastos futuros o imprevistos, así como por los sustitutos que existan para realizar transacciones o acumular activos. La oferta de dinero, que puede no estar bajo el control de la autoridad monetaria, es la que se deriva de los medios de pago que pueden poner las instituciones financieras a los agentes para realizar transacciones y ahorrar, tales como el coeficiente de reservas a montos prestados y los dispositivos para realizar transacciones sin requerir efectivo.

Si los precios de la economía muestran cierto grado de inflexibilidad para ajustarse de tal forma que la oferta siempre iguale a la demanda, los cambios en la oferta de dinero tienen un impacto sobre variables reales. En el modelo keynesiano, que abordaremos más adelante, los salarios no se ajustan al cambio en la oferta monetaria, por lo que un productor puede contratar más trabajadores ante el incremento en precios. El mismo resultado se obtiene si los agentes económicos tienen cierta expectativa de lo que hará la autoridad monetaria y ésta procede de manera distinta. Un incremento en la oferta de dinero superior al esperado por los agentes fijadores de precios podría ser confundido por un incremento en el precio relativo de cada bien, por lo que se elevaría la producción de todos los bienes. Cualquiera que sea la historia, (salarios inflexibles por el tiempo de contratación, problemas de información sobre lo que hará la autoridad, que resulte difícil o poco práctico cambiar precios), empíricamente se observa que cambios en la oferta de dinero tienen impacto sobre el nivel de empleo y producción de la economía. Así que cuando se analice más adelante la coordinación entre las políticas fiscal y monetaria se supondrá que la política monetaria tiene impacto sobre la economía.

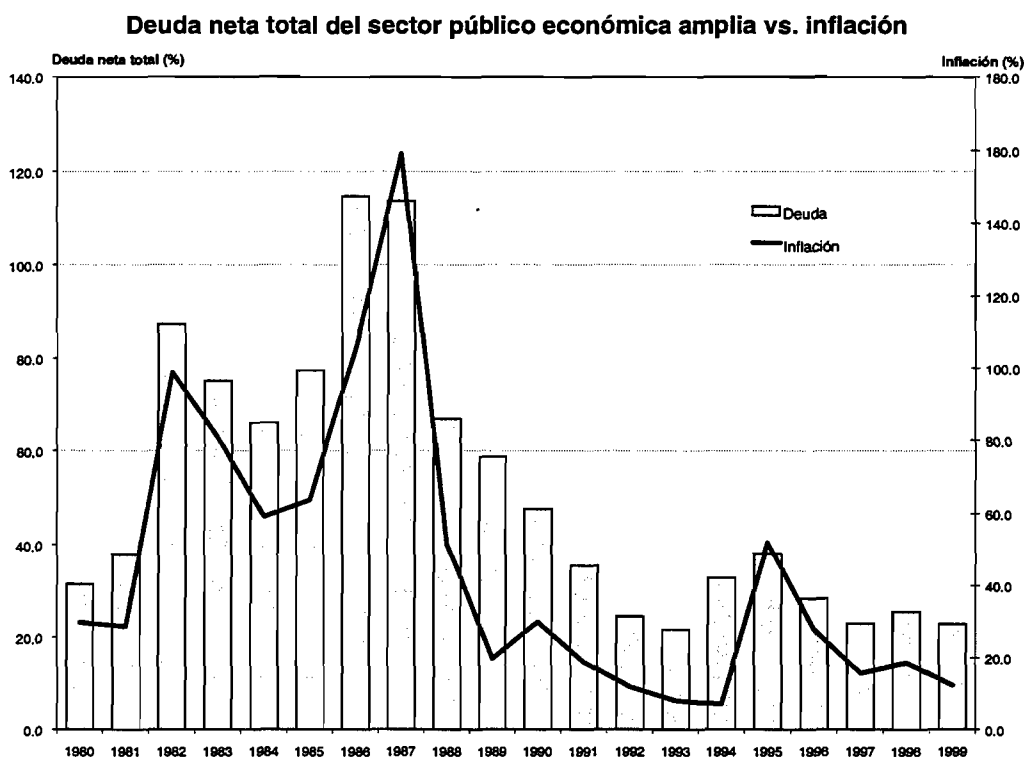
La tasa de interés es una variable que afecta a la demanda agregada. Bajo las condiciones descritas en el párrafo anterior, aun la tasa real se afecta con variaciones en la oferta de dinero, de tal forma que al aumentar la oferta de dinero las tasas de interés tienden a descender. Una reducción en la tasa de interés tiene impacto sobre la cantidad demanda de bienes y servicios, debido a que resulta menos costoso comprar artículos a crédito y porque se requiere una rentabilidad más baja para que un proyecto de inversión se realice. Así que un aumento de la oferta de dinero generará una mayor demanda por bienes y servicios que, por lo señalado en el párrafo anterior, se verá correspondida con más oferta.

Como se mencionó anteriormente, las tasas de interés afectan el nivel de inversión. Dependiendo de la rentabilidad que puedan pagar los proyectos que se realicen, se darán los incentivos para que la gente ahorre. Por medio de estos canales, así como por el flujo de ahorro externo que se genere, la política monetaria incide sobre el ahorro interno.

<sup>2</sup> Otras políticas que pueden reducir el ahorro externo sin compensarlo por ahorro interno reducen la inversión por lo que se consideran menos deseables y no se abordan en este artículo. Posiblemente, la justificación para establecer dichos controles a los flujos de capital externo es que estos últimos llegan al país inducidos por alguna imperfección en el mercado, en cuyo caso, lo que debería procurarse es eliminar la falla.

refinanciar la deuda pública, el gobierno se podría encontrar en la necesidad de no cumplir el pago de su deuda. Al renegar de sus compromisos financieros, el mercado de deuda pública se colapsa, puesto que desaparece la motivación de los inversionistas para prestar al deudor soberano. Con ello, el banco central podría perder el instrumento por medio del cual realiza sus operaciones de mercado abierto. Además, el incumplimiento del gobierno afecta al sector privado, pues el sistema se queda sin una referencia "libre de riesgo"; el mercado secundario de capitales pierde liquidez, al quedarse sin uno de sus sectores más importantes; y se pierde una referencia importante para juzgar las expectativas de inflación. En resumen, con finanzas públicas insostenibles, la política monetaria es incapaz de alcanzar sus objetivos de estabilidad de precios y desarrollo del sistema financiero. En el caso de México, en aquellas situaciones en las que se ha tenido una deuda elevada, la necesidad de recurrir a la emisión monetaria puede explicar el que se hayan tenido inflaciones elevadas como se puede apreciar en la Gráfica 1. Es decir, la solvencia fiscal es una condición necesaria para tener un bajo nivel de inflación.

Gráfica 1



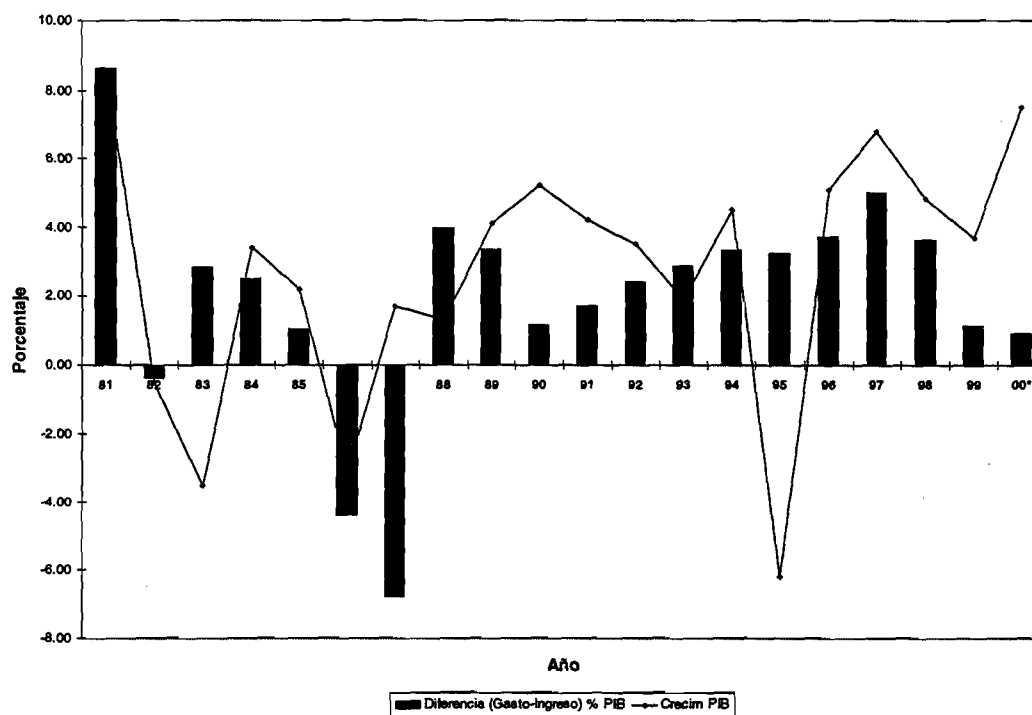
Por lo anterior, los bancos centrales se ven presionados a llevar a cabo una política más laxa ante mayores emisiones de deuda pública, de tal forma que el costo para el gobierno no sea mayor. En dicha situación, las decisiones de las autoridades gubernamentales se imponen sobre las de las autoridades monetarias, directa o indirectamente. El predominio de la política fiscal sobre la monetaria no es un asunto que atañe sólo a los países en desarrollo. En los Estados Unidos, durante los años 60 y 70 se presentó la coincidencia de crecientes déficit públicos e inflaciones, lo que llevó a muchos a sostener que la Reserva Federal no es independiente.<sup>4</sup> Aun los bancos centrales autónomos se ven afectados por la política fiscal, como se verá más adelante. En Alemania, donde el Bundesbank es una institución que goza de mayor

<sup>4</sup> Véanse, por ejemplo, a Dwyer (1982), Hamburger (1981) y Nikasnen (1978). Después de lo ocurrido en los 80 y bajo las condiciones de los 90, se acepta que en estos momentos la Reserva Federal determine libremente la política monetaria.

Asimismo, la política fiscal activa puede llevar a una elevación de precios. Un mayor déficit tiende a expandir la actividad económica, si los individuos no anticipan que tendrán que pagar la deuda generada en el futuro (o no serán ellos quienes la atenderán o, cuando lo hagan, enfrentarán un menor costo). Los proveedores de bienes y servicios del gobierno tendrán un mayor ingreso que gastarán, dando mayor ingreso a otros individuos, y así sucesivamente, hasta que se llega a un nuevo equilibrio, en el que la economía tiene un nivel de ingreso superior. Al elevarse la producción, se demandarán mayores salarios (si antes de esto no había trabajadores desempleados), lo que requiere que los productores carguen precios más elevados. Así, la presión de demanda agregada generada por una expansión fiscal puede llevar a la elevación del nivel general de precios, ocasionando con ello una desviación del objetivo de inflación. Por ejemplo, en México se ha visto que la presión sobre la demanda agregada generada por el sector público ha tendido a acrecentarse cuando el nivel de ingreso está creciendo y a contraerse al mismo tiempo que cae el ingreso (Gráfica 3).

Gráfica 3

Presión en Demanda Agregada como porcentaje del PIB  
Anual



La determinación de precios administrados afecta a la inflación medida en el corto plazo. Lo anterior puede ocurrir porque los ajustes en estos precios son poco frecuentes (y por tanto considerables), con lo que se eleva el nivel de precios medido en el mes o meses en los que se dan los aumentos. Otra razón por la cual los aumentos en precios públicos tienen impacto sobre el nivel de precios, es porque constituyen una señal de la inflación esperada por las autoridades. En la medida en que se quieran compensar rezagos en precios, los aumentos por encima de la inflación esperada generarán un nivel general de precios mayor al objetivo. Como puede apreciarse en la Gráfica 4, en México la determinación de precios por el sector público, durante el periodo que ésta fue una práctica que involucró a una

Banco de México lleva la cuenta de la Tesorería de la federación y es el agente colocador de deuda del gobierno.

## 2.2 Impacto de la Política Monetaria sobre el Déficit Público

Por su parte, la política monetaria tiene varios efectos sobre la variable que determina el resultado fiscal, el déficit público. El déficit público es la medida que utilizan los analistas para determinar la postura fiscal, la presión de la autoridad fiscal sobre la economía, la absorción del crédito que hace el sector público y la sostenibilidad de la política fiscal. Es discutible lo adecuado de la medición que el déficit provea de todas estas cuestiones. Por ejemplo, por lo que se describe abajo y estima en la sección 4, está claro que el déficit no depende solamente de la autoridad fiscal y, por lo tanto, no necesariamente refleja su postura. Sin embargo, el déficit es la medida más objetiva y por ello la más consultada.<sup>9</sup>

Cuando la política monetaria incrementa las tasas de interés como instrumento para controlar la inflación, tiene dos efectos directos sobre el déficit: un efecto pago de intereses y otro efecto valor de la deuda (Dahan, 1998). Si el gobierno es un deudor neto, el efecto de mayores tasas de interés<sup>10</sup>, por una parte, implicará que el costo financiero de la deuda pública doméstica se incremente. El efecto sobre el déficit dependerá de la cantidad de deuda emitida a tasa flotante, y del monto de nuevas colocaciones que se tengan que hacer. Por otra parte, al elevarse las tasas de interés, el valor de mercado de la deuda a tasa fija disminuirá. Desafortunadamente, el déficit se mide en términos de caja, cuando menos en México, por lo que estas ganancias de capital no lo reducen. La única forma en que el gobierno podría aprovechar la disminución en precios sería recomprando su deuda, pero, en ese caso, quizá lo más conveniente sería no emitir más deuda o reducir los impuestos.

Por otra parte, las acciones de política monetaria pueden tener un efecto sobre el tipo de cambio, ya sea directamente, como cuando se defiende explícitamente una paridad contra una moneda extranjera, o indirectamente, a través de movimientos en las tasas de interés y su impacto en el flujo de capitales. Al depreciarse el tipo de cambio, el pago de intereses en moneda extranjera es más elevado, lo que tiende a incrementar el déficit. Asimismo, las importaciones de bienes y servicios del sector público son más costosas. Por otra parte, los ingresos que tiene el sector público por venta de bienes en el exterior (como el petróleo en el caso de México) y las transferencias internacionales (como las ayudas que reciben algunos países en desarrollo) incrementan los ingresos del gobierno.

Finalmente, los bancos centrales autónomos determinan la política monetaria con la finalidad de alcanzar un nivel objetivo de inflación. La variación en la inflación, también afecta al déficit. La inflación afecta al gasto público en bienes y servicios, a la recaudación tributaria, al pago de intereses, al valor de la deuda pública, y, desde luego, a la recaudación proveniente de la emisión de moneda.

Frecuentemente, los contratos entre el gobierno con sus proveedores de bienes y servicios se establecen por un periodo de tiempo prolongado con base en una inflación esperada. En la medida en que la inflación observada sea más elevada (baja) que la esperada, el gobierno tendrá que hacer un menor (mayor) gasto real en esas contrataciones. Lo anterior se conoce como el efecto Patinkin, y, como se muestra en la sección 4, está presente en México (Cardoso, 1998). Sin embargo, la reducción del déficit es sólo de corto plazo y presenta en contraparte mayores déficit en el largo plazo, debido a que tanto empleados como proveedores del gobierno se cubrirán ante sorpresas inflacionarias posteriores, cobrando una prima de riesgo en sus contratos. Por otra parte, en los países desarrollados de la OCDE, los gobiernos realizan política fiscal anticíclica, expandiendo el gasto público cuando la economía está en recesión

<sup>9</sup> Su objetividad depende de que se incluyan todos los gastos e ingresos públicos. Restricciones legales o disposiciones contables hacen que se excluyan, en ocasiones, algunos rubros de gasto o ingreso.

<sup>10</sup> Suponiendo que al elevar la tasa de interés de corto plazo, se eleve el nivel de tasas de toda la curva afectando las tasas que paga el gobierno a todos los plazos.

del impuesto al ingreso al pasar los individuos a tasas marginales de ingreso más elevadas, no se da en países como México en que las tasas impositivas están indexadas. Por el contrario, el incremento en la inflación sí tiene, aun bajo un sistema indexado, algún efecto Olivera-Tanzi, y las tasas de interés nominales siempre se elevan. Por lo tanto, la mejor contribución que puede hacer la política monetaria al déficit público, es alcanzar baja inflación.

### 3. Estabilización Macroeconómica y Déficit de Cuenta Corriente

Como se mencionó en la sección anterior, la contribución más significativa que ambas políticas pueden hacer para que la economía crezca a sus niveles más altos de manera sostenida, es no incurriendo en posturas insostenibles. Es decir, ni la deuda pública se vuelve imposible de pagar con fuentes no inflacionarias de ingreso, ni la inflación llega a niveles elevados y crecientes.

En caso de que se cumpla lo anterior, tanto la política fiscal como la monetaria afectan al nivel de actividad económica y pueden ser utilizadas para estabilizar sus fluctuaciones.<sup>12</sup> Esto es, una política monetaria laxa o un mayor déficit público conllevan un mayor nivel de ingreso y/o mayor nivel de precios. El ingreso se incrementa cuando la demanda se encuentra por debajo del ingreso potencial. Es decir, mientras la demanda agregada esté a un nivel menor que aquel para el cual la oferta se vuelve inelástica y los precios tienden a incrementarse. Estímulos que se dan cuando dicho nivel se ha rebasado se traducirán en inflación y no en mayor empleo.

Sin embargo, como se mencionó anteriormente, ambas políticas también tienen repercusiones sobre el flujo de capitales externos.<sup>13</sup> La política fiscal proactiva presiona las tasas de interés a la alza con lo que se presenta un flujo de capitales externos hacia el país, mientras que una política monetaria contractiva tiene el mismo efecto sobre tasas y flujo de capitales externos. Por otra parte, al afectar el nivel de ingreso, dichas políticas tienen un impacto en el mismo sentido sobre el nivel de importaciones.

A continuación se presenta una versión del modelo Mundell-Fleming que se utiliza en este artículo aplicada para el caso de una economía pequeña. El análisis del modelo se hace tanto bajo el régimen de tipo de cambio fijo como el de tipo de cambio flexible. Posteriormente, se hace presente el análisis de instrumentos y objetivos bajo ambos regímenes.

El sistema se compone de tres ecuaciones: la IS que determina el equilibrio entre oferta y demanda en el mercado de bienes, la LM que determina el equilibrio en el mercado de dinero y la ecuación de equilibrio en el sector externo, BP, que iguala la cuenta corriente con la entrada de capitales (cuenta de capitales más variación en reservas internacionales). Se supone que los precios domésticos son fijos y que estos tres componentes de la demanda agregada determinan el nivel de ingreso.

La IS muestra una relación negativa entre el nivel de ingreso y la tasa de interés, además de que de que depende del tipo de cambio, de tal forma que una depreciación de éste requiere de un menor ingreso o una mayor tasa de interés para que se restaure el equilibrio.

<sup>12</sup> En este artículo se utiliza el marco conceptual del modelo Mundell-Fleming. Dicho modelo tiene varias limitaciones entre las que destacan su ausencia de bases microeconómicas, que tiene importantes implicaciones en cuanto a la razón por la cual los agentes acumulan dinero que no produce rendimiento, que se carece de restricciones intertemporales, las expectativas de los agentes no son consistentes con lo que puede suceder en el futuro y no se define cómo se resuelven las diferencias entre gasto e ingreso. Sin embargo, quizá la falla más grande de este modelo es que no permite hacer una evaluación del bienestar de los consumidores bajo regímenes alternativos. Por lo anterior, resulta evidente que se tiene que extender este análisis a un modelo de maximización intertemporal.

<sup>13</sup> El análisis de este artículo se limita a considerar el caso de libre flujo de capitales, que se considera el caso más relevante para las economías contemporáneas.

agregada. El equilibrio en el sector externo también se requiere que aumentos en el gasto público que deterioran la cuenta corriente, se vean compensados con incrementos en la tasa de interés que atraiga capitales externos y también modere el crecimiento de los otros componentes de la demanda agregada. El equilibrio en el mercado interno tiene una menor sensibilidad a la tasa de interés debido a que el objetivo de ahorro externo se facilita con el flujo de capitales. Es decir, la ecuación de equilibrio interno será más inelástica que la de equilibrio externo, si la tasa de interés se grafica en el eje de las abscisas.

Del análisis anterior, lo primero que hay que notar es que ningún tipo de política es generalmente suficiente para alcanzar ambos objetivos. Es decir, se requiere de la coordinación de ambas políticas si es que se quieren alcanzar los dos objetivos. Bajo la situación estudiada por Mundell, la política monetaria tiene ventaja comparativa respecto a la fiscal para alcanzar el objetivo de ahorro externo, debido precisamente al efecto adicional que tiene un cambio en tasas de interés sobre el flujo de capitales. Partiendo de un punto de desequilibrio, por ejemplo, en el que la demanda agregada esté presionando los precios a la alza y de excesivo déficit en la balanza comercial, la política fiscal debería tratar de reducir el crecimiento de la demanda agregada con un menor gasto, mientras que la política monetaria debería disminuir el déficit en balanza de pagos con mayores tasas de interés. De esta forma, si la política monetaria se adelanta y alcanza su objetivo antes que la fiscal (en un punto para el cual las tasas de interés son excesivamente elevadas respecto al punto en que se alcanzan ambos objetivos), ésta puede de cualquier manera buscar su objetivo, lo que moverá a la economía a un punto de superávit externo, que llevará a la autoridad monetaria a bajar las tasas. Es decir, la asignación de objetivos mencionada hace que, sin importar el punto del cual partan las autoridades, se converja al objetivo. Por el contrario, la asignación de política monetaria al equilibrio interno y fiscal al externo es inestable. Si partiendo del mismo desequilibrio en ambos sectores que se mencionó anteriormente, la política monetaria logra el objetivo de equilibrio en el mercado interno, las autoridades fiscales encontrarán que tienen que hacer frente a un superávit externo, lo que les llevará a asumir una postura expansiva, que acerbará el desequilibrio del mercado interno.

La asignación de políticas es la contraria bajo tipo de cambio flexible. Mientras que el equilibrio en el mercado interno sigue requiriendo que al aumentar el gasto público se incrementen las tasas de interés, el equilibrio u objetivo de ahorro externo se ve modificado. Con tipo de cambio flexible un aumento en el gasto público incrementa el ingreso y la tasa de interés. Ambos factores tienden a apreciar el tipo de cambio, lo que requiere de una disminución en las tasas de interés para que se vuelva a presentar el equilibrio. Es decir, ahora por el contrario, si se grafican ambos equilibrios en el espacio gasto público-tasa de interés, el equilibrio en el mercado interno tendrá una pendiente positiva y el externo, negativa. En este caso, en la asignación de acuerdo a ventajas comparativas corresponde a la política monetaria el equilibrio interno y a la política fiscal es externo. De esta forma, iniciando nuevamente con una situación de inflación y déficit externo excesivo, la política monetaria incrementa las tasas de interés y la fiscal, disminuyendo el gasto. Nuevamente, si la política monetaria alcanza su objetivo antes que la fiscal, ésta podrá continuar, contrayendo el gasto, si persiste el déficit, o incrementándolo en la situación opuesta. La asignación contraria puede resultar inestable, si la política monetaria procura estimular las exportaciones netas haciendo descender las tasas. Dicha asignación puede resultar estable si la autoridad fiscal hace lo contrario, sin embargo, con alta movilidad de capitales, el camino hacia el equilibrio es menos directo, por lo que con un poco de incertidumbre, es posible que las autoridades desistan de sus políticas (Genberg y Swoboda, 1987). Además, como menciona Boughton (1988) empíricamente se ha visto que la política monetaria es poco efectiva para alterar el déficit en cuenta corriente, principalmente porque el efecto de las tasas de interés tiene efectos en sentido contrario sobre la balanza de pagos, puesto que una alza reduce la demanda por importaciones y atrae capitales externos.

A continuación se utiliza este marco conceptual para hacer algunos comentarios sobre el efecto que tiene para la economía el que se utilicen reglas que restan flexibilidad a cualquiera de estas políticas. El análisis, como se ha visto, depende del régimen de tipo de cambio que se tenga. Lo anterior, además de provenir de una amplia y respetable vena de la literatura económica, se debe a la estrecha relación entre el

En el Cuadro 1 se muestra la correlación entre el gasto del gobierno como proporción del PIB y el crecimiento del PIB. La muestra no es muy grande, pero de los países existentes, la mitad tiene la correlación negativa requerida y entre ellos se encuentra Panamá, que de acuerdo a Velasco (2000) no tiene una política fiscal que se distinga por su disciplina.

Cuadro 1

Coeficiente de Correlación entre el Gasto del Gobierno como % del PIB y el Cambio% en el PIB real	Años considerados para el cálculo	
Argentina	0.3699	91-97
Bulgaria	-0.1678	91-98
Estonia	-0.5058	93-98
Hong Kong	-0.5517	93-94, 97-99
Lituania	0.7798	93-98
Panamá	-0.5303	91-97

Fuente: PIB e IP: IFS

Gasto: GFS excepto Hong Kong (Census and Stat Dept)

A propósito de la disciplina, el propósito de los regímenes que limitan la actuación de las autoridades monetarias es impedir que éstas apliquen su discreción. Pero como se mencionó anteriormente, frecuentemente se utiliza a la inflación como una fuente de ingreso por parte del gobierno. En otras ocasiones, la autoridad fiscal dicta a la autoridad monetaria qué es lo que debe hacer. Bajo estas circunstancias, la limitación de la política monetaria sólo sirve para quitarle una fuente de financiamiento políticamente menos costosa a la autoridad fiscal, que es la que en realidad requiere de disciplina.

Para inducir disciplina a la autoridad fiscal limitar la actuación de la autoridad monetaria no siempre es suficiente, y por el contrario, dicha limitación puede ganarle tiempo a una autoridad fiscal que tiene un sesgo hacia los déficit. Gavin y Perotti (1997) y Tornell y Velasco (1998 y 2000) muestran que tanto en América Latina como en África los regímenes de tipo de cambio fijo tienden menores déficit públicos que los países con tipo de cambio flexible. La razón que aducen Tornell y Velasco es que los déficit se manifiestan inmediatamente en mayores inflaciones mientras que bajo tipo de cambio fijo la inflación tarda en manifestarse, lo que da menos espacio para operar a las autoridades cuando se actúa bajo tipo de cambio flexible.

Precisamente porque la disciplina fiscal no se garantiza abdicando de la política monetaria es que el tratado de Maastricht y el Pacto para la Estabilidad y el Crecimiento aplicados a los países de la Unión Monetaria Europea agregan límites tanto al déficit público como al endeudamiento público. La conveniencia de estos límites se verá en la siguiente sección.

### 3.2. Tipo de Cambio Flexible

Bajo este régimen pueden presentarse diversas formas de actuación para la autoridad monetaria. Al no estar ligada la paridad a una referencia externa la autoridad monetaria debe fijar otra ancla nominal.

Cuadro 2

	Coefficiente de Correlación entre el Gasto como % del PIB y el Cambio% en el PIB real	Año de adopción del inflation target	Años considerados para el cálculo
Australia	-0.4492	1994	94-98
Brasil		1998	
Canadá	-0.6166	1991	91-99
Chile	-0.8681	1991	91-98
España	-0.9453	1994	94-99
Finlandia	-0.6525	1993	93-97
Israel	-0.3343	1991	91-98
Nueva Zelandia	-0.5416	1990	94-98
Reino Unido	-0.1960	1992	92-98
Suecia	-0.5056	1993	93-98

## Fuente

	PIB	IP	Gasto
Australia	IFS	IFS	GFS
Brasil	IFS (90-98) Banco Central de Brasil (99)	IFS	GFS (90-94) Banco Central de Brasil (97-99)
Canadá	IFS	IFS	GFS (90-95) Dep of Finance of Canada (96-98)
Chile	IFS	IFS	GFS
España	IFS	IFS	Ministerio de Economía de España
Finlandia	IFS	IFS	GFS
Israel	IFS	IFS	GFS
Nueva Zelandia	IFS	IFS	Statistics New Zeland
Reino Unido	IFS	IFS	GFS
Suecia	IFS	IFS	GFS

Como se mencionó anteriormente, una característica de los países latinoamericanos es sus políticas procíclicas. Con la adopción del objetivo de inflación, el Banco Central de Brasil y el Banco de México han señalado en sus reportes de inflación las presiones que causa la política fiscal sobre la inflación debida a la presión en demanda agregada, con lo que es de esperarse que disminuya el grado de prociclicidad. Al menos en 1999 en Brasil el gasto público creció en 0.15 puntos del PIB cuando el PIB apenas registró crecimiento. En México, en los últimos años se ha registrado una presión en demanda agregada considerablemente menos procíclica que en años anteriores, como se mostró en la gráfica 2.

Además de la ventaja comparativa que tienen las autoridades monetarias bajo tipo de cambio flexible hay otra razón para asignarles la estabilización de la economía interna. Cuando la información disponible no permite juzgar en qué situación está la economía, dependerá de los incentivos que tienen las autoridades para explicar la decisión que se tome. Generalmente, la autoridad fiscal tiende a abogar por un estímulo a la economía mientras que el banco central, atribuye un mayor costo a la inflación. Con la clara determinación de responsabilidades, la autoridad monetaria independiente puede velar porque se preserve la estabilidad de precios y que la política acordada por las autoridades repercuta en un nivel de ingreso sostenible. Mientras que la autoridad fiscal controla que el déficit de cuenta corriente se encuentre en niveles sostenibles. Sin embargo, bajo instituciones que limitan la actuación de las autoridades fiscales no está del todo claro si estas autoridades pueden llevar a cabo dicho objetivo.



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**SESION 2**

**LA POLITICA FISCAL, MONETARIA Y CAMBIARIA  
EN LOS "PROGRAMAS DE ESTABILIDAD Y CRECIMIENTO"  
DEL AREA DEL EURO: LECCIONES PARA LA INTEGRACION  
REGIONAL EN AMERICA LATINA Y EL CARIBE**

**LOS EFECTOS DEL EURO EN LAS RELACIONES FINANCIERAS  
ENTRE AMÉRICA LATINA Y EUROPA**  
*(Versión preliminar)*

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## Introducción

La creación y la entrada en vigor del euro a partir del 1 de enero de 1999 constituye uno de los mayores acontecimientos económicos de fines del siglo XX. Etapa decisiva de un largo proceso de integración económica, la materialización de la Unión Monetaria Europea introduce importantes transformaciones en las relaciones monetarias y financieras internacionales. El peso económico de la zona de emisión —es decir los once países que constituyen hasta el momento el "Euroland"— y la voluntad de las autoridades europeas de no impedir el proceso de internacionalización de la nueva moneda llevan a pensar que la irrupción del euro puede traducirse en sustantivas modificaciones del sistema monetario internacional (SMI).

América Latina no es la región que presenta vínculos más estrechos con la zona euro. Además, el dólar es la divisa de referencia indiscutible en la región latinoamericana. No obstante, el peso no desdeñable de los lazos económicos que existen entre numerosos países latinoamericanos y el viejo continente y el interés por el proceso de construcción de la Unión Monetaria Europea están en la base de una reflexión que se desarrolla en dos planos diferentes.

Por un lado, la trayectoria europea hacia la unión monetaria es, desde hace varios años, una fuente de experiencia para América Latina. Aun cuando no es posible trasplantar una experiencia que es en gran medida única, el análisis de la secuencia lógica y de los criterios de convergencia adoptados por la Unión Europea puede ser de gran utilidad para los diversos agrupamientos regionales latinoamericanos (Capítulos del SELA, 1998; Giambiagi, 1999; Heyman, 1999; Irela, 1999; Levy Yeyati y Sturzenegger, 1999a; Zalher, 1999). El interés por el proceso europeo se ve reforzado, además, en un contexto en el que el principio hasta hace poco dominante de "un país, una moneda" es cada vez más cuestionado (Alesina y Barro, 2000). A partir de ello, las opciones a medio y largo plazo para los países latinoamericanos parecen polarizarse, más allá de la diversidad de regímenes cambiarios existentes en la región, entre la perspectiva de una dolarización total y la de la participación en una unión monetaria regional, lo cual refuerza el interés por la experiencia europea (García Herrero et Glöckler, 2000).

Por otro lado, los probables efectos directos e indirectos de la creación del euro en las relaciones económicas entre Europa y América Latina comienzan a suscitar un interés creciente. La tarea de analizar en términos prospectivos el impacto de la nueva moneda europea en otras regiones del mundo es compleja. El euro tendrá, en primer lugar, efectos en los propios países de la unión monetaria europea que no son fáciles de elucidar y que serán en gran medida determinantes para que la nueva moneda gane terreno en las transacciones internacionales (por ejemplo, los efectos del euro en el desarrollo de los mercados financieros de la eurozona). Además, los efectos del euro en terceros países dependerán del alcance del proceso de internacionalización de la nueva moneda. Esta es la dimensión que, sin pretender abordar todos los aspectos de este vasto tema, será privilegiada en este trabajo. Más precisamente, la atención se concentrará en los efectos del euro en las relaciones financieras entre Europa y América Latina<sup>2</sup>.

Esta elección parece justificada. Como ya ha sido puesto en evidencia, el impacto del euro en las relaciones euro-latinoamericanas transitará, más que por los canales comerciales, por los canales financieros (Levy Yeyati y Sturzenegger, 1999c). La mayor parte de los países latinoamericanos se caracteriza, en efecto, por un alto grado de apertura financiera que incrementa su vulnerabilidad respecto de los cambios en la direccionalidad de los flujos internacionales de capitales. Además, el desarrollo de las funciones financieras del euro constituirá, muy probablemente, la dimensión decisiva del proceso de internacionalización de la moneda única europea.

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<sup>2</sup> Este trabajo es un primer borrador de un estudio más extenso que se encuentra en proceso de elaboración.

## I. El euro y el SMI

La aparición del euro en la escena internacional marca el inicio de una nueva era de las relaciones monetarias y financieras internacionales. La profundización del proceso de integración que se inició en los años 50 y el nacimiento del euro constituyen un paso decisivo en el largo camino hacia un mercado europeo verdaderamente único. Al mismo tiempo, dado el peso económico de "Euroland" y la voluntad que emana de las autoridades europeas, el advenimiento del euro abre la posibilidad de aparición de una nueva moneda internacional capaz de competir con el dólar. El escenario que parece más plausible, a saber una creciente pero lenta bipolarización del SMI, va a generar muy probablemente una mayor volatilidad de las tasas de cambio. A menos que las autoridades estadounidenses y europeas implementen una cooperación monetaria reforzada que, por el momento, no se perfila en el horizonte.

### 1. El euro, moneda internacional: consideraciones generales

Si se comparan los pesos relativos de Estados Unidos y de la zona del euro en la economía mundial, se advierte que ambos son similares en términos de PIB y de población, como se indica en el cuadro 1.

**Cuadro 1**  
**Peso en la economía mundial de Estados Unidos y de la Zona Euro**

	Población	PIB	Capitalización bursátil		Apertura externa
	(1)	(2)	(2)	% PIB	(3)
<b>Europa (11)</b>	291.09	6 457.66	4 223.13	65.40	15.90
<b>Estados Unidos</b>	270.30	8 230.40	13 451.35	163.44	12.09
<b>Japón</b>	126.41	3 782.96	2 495.76	65.97	11.09

(1) millones de habitantes, (2) miles de millones de dólares, (3) exportaciones/PIB en %

Fuente: World Bank, datos para el año 1998

Al mismo tiempo, se percibe que la zona euro tiene un peso superior al de Estados Unidos en el plano del comercio internacional. En cambio, el peso financiero de Estados Unidos es ampliamente superior, si se adopta el criterio de la capitalización bursátil. Estos datos estadísticos de base pueden conducir a considerar que el euro dispone de un importante potencial para incrementar su participación, como moneda de uso internacional, en la economía mundial.

A esto se agrega un factor no desdeñable: la posición de las autoridades europeas con respecto a la internacionalización del euro. A sabiendas que la historia y la teoría económica muestran que el progreso en el uso internacional de una moneda no puede ser sino gradual, los responsables europeos no buscan promover activamente la internacionalización del euro. No obstante, a diferencia de Japón, que siempre se ha resistido a la perspectiva del uso internacional del yen (considerando que esto podía perturbar la conducta de la política monetaria del país), las autoridades europeas no se oponen a una internacionalización creciente del euro. Su posición es que la estrategia en materia de política monetaria es suficientemente robusta para enfrentar las implicancias de una internacionalización creciente de la moneda europea (Duisenberg, 2000). Se trata, por lo tanto, de una posición "neutra" que, de hecho, favorece la creciente utilización internacional del euro.

promisoria y si el diferencial de tasas de interés con Estados Unidos se reduce o se invierte. De hecho, durante los últimos meses del 2000 comenzó a advertirse que las entradas netas en concepto de títulos de deuda aumentan puesto que los inversores europeos parecen menos ávidos de papeles extranjeros, en tanto que los no residentes mantienen sus posiciones en obligaciones y activos monetarios de la zona euro. Paralelamente, aumentan las compras netas de acciones europeas por parte de los no residentes (Nehls-Obégi y Ripert, 2000).

La mayor parte de los economistas parecen estar de acuerdo para prever una apreciación gradual del euro. Sin embargo, importantes fuentes de incertidumbre persisten en el corto y mediano plazo. Una de ellas tiene que ver con el comportamiento de la economía estadounidense: su desaceleración se producirá en la forma de un « soft landing »? En caso de no ser así, no se debe excluir la posibilidad de una crisis financiera en Estados Unidos que podría suscitar una caída brutal del dólar, con fases alternadas de alza o de baja de la paridad dólar-euro debidas al desfase coyuntural entre las dos zonas monetarias y a cambios bruscos en las expectativas de los mercados financieros.

Otra fuente de incertidumbre a mediano plazo tiene que ver con el alcance de la actual fase de crecimiento de la economía europea y con su capacidad para acercarse a la tasa de crecimiento potencial de la economía estadounidense. La mayor parte de los estudios sobre este tema muestran que la tasa de crecimiento tendencial de la zona euro se sitúa entre 2,5% y 3%, mientras que la de Estados Unidos está próxima de 4%. Aun cuando la tasa de ahorro interno más elevada y el saldo corriente habitualmente excedentario de la zona euro (a pesar del déficit coyuntural del 2000) tienden a debilitar al dólar, la persistencia del diferencial en materia de crecimiento potencial juega en contra del fortalecimiento del euro en el largo plazo.

A pesar de que se trata de cuestiones diferentes, la evolución de la tasa de cambio del euro y las perspectivas en el plano del rol internacional de la moneda europea no están exentos de vínculos. En efecto, si el euro se deprecia de modo permanente y se instala un clima de desconfianza sobre su paridad, su utilización podría verse desalentada y esto podría incidir contra su afirmación como una de las divisas clave del SMI.

Como quiera que sea, numerosos autores preconizan un auge previsible del euro como moneda internacional. La mayor parte de estos trabajos subraya que el rol financiero del euro (es decir como moneda de endeudamiento y de préstamo) va a desarrollarse mucho más rápidamente que su función comercial internacional (es decir como moneda de facturación del comercio internacional). Precizando este razonamiento, algunos señalan que el progreso del euro « comercial » podría producirse en « escalera », con saltos cualitativos, que deberían traducirse en una aceleración del proceso de internacionalización de la divisa europea (de Boissieu, 2000) (gráfico 1). Sin embargo, desde esta perspectiva también se argumenta que un excesivo retraso en el desarrollo de la función comercial del euro podría conspirar contra la afirmación de su rol financiero: una moneda internacional « completa » no debería conocer una divergencia excesiva ni demasiado durable entre sus roles financiero y comercial.

Así, el actual sistema, intermedio entre el hegemónico y el bipolar, o un SMI que correspondería al escenario de mediano-largo plazo que privilegiamos, es decir cada vez más bipolar pero asimétrico, supone una elevada volatilidad entre las dos principales monedas internacionales.

Antes de examinar de modo más detallado los primeros pasos del proceso de internacionalización del euro, conviene señalar que, en el marco de una creciente bipolarización del SMI, se pueden avizorar dos configuraciones respecto de la paridad euro-dólar. Por una parte, una configuración « pesimista » de « competencia » entre el dólar y el euro, en la que las autoridades monetarias estadounidenses y europeas siguen privilegiando exclusivamente sus objetivos domésticos y no cooperan entre sí, lo cual acentuaría la inestabilidad de la paridad bilateral. Por otra parte, una configuración « optimista » de « cooperación » monetaria reforzada: las autoridades estadounidenses y europeas consideran que la estabilidad monetaria internacional es un bien público y se conciertan para intervenir y controlar la evolución de las paridades, al tiempo que se avanza en la coordinación de las políticas macroeconómicas. En esta configuración la volatilidad de la paridad euro-dólar disminuiría.

La primera configuración parece la más probable. Mientras el SMI se encuentre en la actual situación intermedia, es difícil imaginar que los Estados Unidos acepten sacrificar la prioridad acordada a sus objetivos domésticos. Por otro lado, las insuficiencias de la arquitectura institucional de la UEM, incluida la ausencia de un poder político unificado, hacen difícil pensar que Europa pueda defender una política macroeconómica coherente en el plano internacional.

## **II. La internacionalización del euro y América Latina: la importancia de la dimensión financiera**

El impacto de la creación del euro en las relaciones monetarias internacionales dependerá en gran medida del grado de internacionalización de la moneda única europea. Conviene entonces comenzar por distinguir los diferentes usos, privados y públicos, de las monedas a escala internacional, para luego presentar las condiciones de internacionalización de una moneda tal como son enunciadas y analizadas en la literatura económica. Esto permitirá utilizar estos elementos de análisis para evaluar en qué medida el euro es susceptible de devenir una moneda de uso internacional. Por último, se examinan los canales a través de los cuales transitarán los principales efectos directos e indirectos del proceso de internacionalización del euro en América Latina.

### **1. El marco teórico**

#### **1.1. Una tipología del uso internacional de las monedas**

Se puede distinguir, según la tipología propuesta por Krugman (1991), seis tipos de usos internacionales de una moneda en función de un doble criterio: por un lado, las tres funciones tradicionales de las monedas y, por el otro, el uso privado y público de las monedas a escala internacional (cuadro 2).

## **1.2. Las condiciones de internacionalización de una moneda**

Según Bourguinat (1987), deben retenerse dos criterios:

- Estabilidad – previsibilidad de la moneda;
- Aceptabilidad – liquidez: para ser internacional una moneda debe ser aceptada universalmente; la moneda debe ser “vehicular” en el sentido que ella es utilizada por los otros países, en transacciones que no implican una relación directa con el país emisor.

Tavlas (1991) propone dos criterios complementarios:

- El país emisor de la moneda internacional debe tener un peso importante en el comercio internacional, lo que refuerza la utilización de esta moneda por los otros países.
- El país emisor de la moneda internacional debe disponer de mercados financieros libres, amplios y profundos, garantizando la condición de liquidez y permitiendo así que su divisa juegue un rol de reserva de valor para los actores privados y públicos.

Estas condiciones son necesarias pero insuficientes para explicar los motivos por los que los operadores internacionales privilegian una moneda como divisa clave. Algunos autores ponen el acento en el rol de los costos de transacción, los fenómenos de economía de escala, de externalidades positivas (Kenen, 1992) y los efectos de red (Aglietta & Deusy – Fournier, 1994). Estos enfoques permiten mostrar la existencia de procesos de autoreforzamiento y de inercia en el uso internacional de las monedas. Desde este punto de vista, el progreso del euro como moneda internacional debería ser gradual. En otras palabras, el dólar debería mantener su supremacía durante un largo período.

## **2. El proceso de internacionalización: diferentes perspectivas según las funciones del euro**

Cuando surge oficialmente el euro, el dólar es, de lejos, la principal moneda internacional. La moneda estadounidense representa en 1999 más de 60% de las reservas internacionales de los bancos centrales, contra algo más de 12% en el caso del euro (el yen aparece claramente distanciado, con apenas algo más del 5%). El dólar es también el medio de pago más utilizado, con más de 85% de las transacciones en los mercados cambiarios. En lo que respecta a la facturación de las transacciones comerciales, el dólar también juega un rol decisivo, ya que representa alrededor del 45% del total. Por el contrario, las diferencias son menos importantes cuando se abordan las funciones financieras de las monedas. En el momento de la creación del euro las emisiones de obligaciones internacionales son denominadas en dólares a nivel de 38% del total, mientras que la parte de la moneda europea es de 24%. Por otra parte, la moneda europea representa una proporción similar a la del dólar en la repartición por monedas de la cartera de títulos de los agentes privados.

Como lo veremos, se puede esperar que el rol internacional del euro se desarrolle más rápidamente para las operaciones financieras que para las otras operaciones.

### **2.1. La utilización privada del euro como medio de pago y moneda vehicular**

Aun cuando la zona euro tiene, como ya se vio, una participación mayor que Estados Unidos en las exportaciones mundiales de bienes y servicios, la adhesión al euro como medio de pago/moneda vehicular será un proceso lento. De hecho, las modificaciones en las prácticas de denominación de los intercambios toman generalmente un largo período de tiempo. En este sentido, según un estudio reciente del Banco central europeo (1999), cuatro factores podrían cuestionar, aunque ciertamente a largo plazo, el uso preponderante del dólar como medio de pago/moneda vehicular.

En primer lugar, todos los mercados en los cuales se utiliza el euro como medio de pago/moneda vehicular experimentarán una baja en los costos de transacción, lo que incrementará la probabilidad de la



caracteriza por una importante estabilidad en el tiempo con respecto a sus principales determinantes: los flujos comerciales, los flujos financieros y el régimen cambiario. Las transformaciones constatadas son graduales, lo que sugiere la existencia de una fuerte inercia. Tras haber descendido entre 1970 y 1992, la participación del dólar en las reservas oficiales aumentó incesantemente hasta 1997. De una manera simétrica, la proporción del yen y de las monedas europeas ha declinado a lo largo de los años 90.

Los tests econométricos realizados por estos autores muestran que la importancia de las principales divisas clave antes de la creación del euro (dólar, marco y yen) en las reservas internacionales es una función creciente del peso de los países emisores de estas monedas en los intercambios comerciales y de la proporción de la deuda externa denominada en estas monedas. Por otra parte, cuanto más fuerte es el anclaje de un país a una gran moneda, más importante es la participación de ésta en sus reservas. Asimismo, la econometría pone en evidencia relaciones de complementariedad entre el dólar y el marco, lo que sugeriría que estas dos monedas son utilizadas conjuntamente por las autoridades monetarias, como instrumento de reserva internacional.

Otro importante resultado de este estudio –que aborda un período anterior a la creación del euro–, es que los países en desarrollo que liberalizaron su cuenta de capital han sido más proclives a modificar la composición en divisas de sus reservas internacionales en favor del dólar y de la libra esterlina. La explicación evocada por los autores es que estas dos monedas son emitidas por los países que se caracterizan por tener los mercados financieros internacionales más desarrollados. Puede entonces deducirse que la moneda única europea podría en el futuro ocupar un lugar importante en las reservas internacionales oficiales, en la medida en que se desarrollen los mercados financieros de la zona euro.

### **3. El uso financiero del euro por parte de los agentes privados: perspectivas de internacionalización significativas**

La utilización del euro, por parte del sector privado, como moneda de colocaciones y de endeudamiento debería jugar un rol importante en el proceso de internacionalización de la moneda europea por dos razones. En primer lugar, en las transacciones internacionales, los operaciones financieros tienen un peso mucho mayor que el de las operaciones de bienes y servicios. De este modo, en los mercados cambiarios lo esencial de las transacciones constituye la contrapartida de las operaciones financieras. En segundo lugar, existe un amplio consenso sobre el hecho que la creación de la moneda europea debería jugar en el sentido de un desarrollo rápido de los mercados financieros en euros. Todos los especialistas prevén una implementación progresiva de un mercado del euro amplio, profundo y líquido, que debería traducirse en condiciones de colocación y financiamiento más ventajosas para los operadores europeos y de terceros países.

#### **3.1. Los principales factores de desarrollo del mercado financiero del euro**

La creación del euro tiene dos efectos positivos directos e inmediatos sobre los mercados de capitales en Europa. Por un lado, el euro termina con la fragmentación de los mercados nacionales. Por otro, el euro suprime el riesgo de cambio entre las monedas europeas.

Al aumentar el tamaño de los mercados y al suprimir los obstáculos a la circulación de capitales, la moneda única a incrementar la liquidez de los mercados de la zona euro, es decir la posibilidad de operar importantes transacciones sin perturbar significativamente el valor de los títulos.

El peso financiero del euro es bastante inferior a su peso económico; esto puede explicarse por la atomización de Europa. En el caso del dólar ocurre lo inverso: su peso financiero es muy superior a su peso económico. En la medida en que los pesos económicos de Estados Unidos y de Europa (medidos por tamaño del PBI o de la población) sean comparables, se puede avizorar una evolución –ciertamente,

### **3.2.2. El mercado de acciones**

A diferencia de los mercados monetarios, los mercados de acciones (al igual que los mercados de títulos públicos) no están unificados a la escala europea (BID, 2000). Puede sin embargo esperarse un desarrollo rápido de los mercados de acciones denominadas en euros durante los próximos años. Esta progresión podría resultar de varios factores.

En primer lugar, un efecto de "catch-up" respecto a los mercados competidores: en términos de porcentaje del PBI, la capitalización bursátil de la zona euro es, como vimos, muy inferior a la de Estados Unidos. La proporción de firmas que cotizan en bolsa, todavía baja en la zona euro, debería incrementarse en los próximos años, gracias a la próxima entrada en el mercado de numerosas empresas medianas.

En segundo lugar, la desaparición del riesgo país intraeuropeo en el segmento de las obligaciones debería atraer hacia los mercados de acciones a los inversores que buscan colocaciones riesgosas. Como en el caso del mercado de obligaciones privadas, la bolsa favorecerá la llegada de inversores extranjeros atraídos por los productos de la zona euro.

En tercer lugar, la creación del euro tiene un impacto positivo sobre las cooperación interfronteras y paneuropea entre las plazas bursátiles, lo que permitirá el desarrollo de mercados más vastos, más líquidos y más diversificados. Varias alianzas están en curso de negociación, por ejemplo la de las plazas de Londres y Francfort.

En cuarto lugar, la creación del euro suscita iniciativas que deberían dinamizar los mercados bursátiles. Entre ellas se puede citar la creación del Nasdaq-Europe en el 2000, que constituye una plataforma europea para la emisión de nuevas acciones de firmas con fuerte potencial de crecimiento, y el nacimiento de Easdaq, bolsa internacional con sede en Bruselas cuya función consiste en reunir las cotizaciones de empresas de tamaño y crecimiento intermedios que tengan una orientación europea o internacional.

### **3.2.3. El mercado de obligaciones**

El auge de la emisión de obligaciones denominadas en la nueva moneda europea constituye la transformación más importante suscitada por la introducción del euro. Más precisamente, el segmento de las obligaciones privadas domésticas e internacionales ha conocido una expansión espectacular (Detken y Hartmann, 2000; BCE, 2000; BIS, 2000).

En lo que respecta a las emisiones soberanas, domésticas e internacionales, la evolución ha sido más moderada. Ciertamente, la conversión en euros de la deuda pública denominada en las antiguas monedas europeas generó un mercado más amplio que su homólogo japonés y que sólo es sobrepasado por el del tesoro de Estados Unidos. Hacia fines de 1999, el total de los empréstitos a largo plazo en euros de los Estados del Euroland se elevaba a 2.200 billones de euros, vale decir dos tercios del monto de obligaciones del Tesoro de Estados Unidos (BIS, 2000). Sin embargo, la expansión en Europa del mercado de obligaciones soberanas domésticas será limitada en la medida en que el tratado de Maastricht impone límites a los déficit fiscales y a los indicadores de endeudamiento de los países de la Unión Monetaria. En cuanto a los países emergentes, luego de las crisis financieras que tuvieron lugar después de 1997 se constata una desaceleración del ritmo de crecimiento de las emisiones soberanas.

En suma, la evolución reciente del mercado de obligaciones de la zona euro puede ser sintetizada de la siguiente manera:

- La estructura del mercado de obligaciones en euros se transforma: caída de la participación en la emisión de las obligaciones soberanas (como consecuencia de la disminución de los déficit públicos y de los programas de re-compra de deuda); aumento de la participación de las emisiones no soberanas, es decir las realizadas por las instituciones financieras y por las

fondos de pensión, compañías de seguros). De esto resulta una demanda creciente de colocaciones bajo la forma de títulos negociables en euros. En principio, los inversores tienen un objetivo de diversificación. En este plano, las perspectivas que ofrecen los mercados europeos son contradictorias: la creación de un espacio monetario financiero unificado elimina las posibilidades de diversificación por país. Sin embargo, el desarrollo reciente de nuevos segmentos de los mercados en euros –en particular la deuda de rendimiento elevado y alto riesgo– contribuye a abrir el abanico de opciones de los inversores. Otro factor importante para los inversores extranjeros es la cuestión de la correlación de los rendimientos de los activos en euros y en dólares. Esto podría conducir, –si seguimos lo que sugirieren numerosos trabajos recientes–, a una mayor sincronización de los ciclos económicos entre Estados Unidos y Europa.

Finalmente, la emergencia de nuevos instrumentos y segmentos contribuye a dinamizar el mercado de obligaciones. Es el caso del mercado de obligaciones a alto rendimiento (es decir de obligaciones emitidas por los establecimientos cuya calificación por parte de las agencias de rating es baja), reforzado por el aumento de las operaciones de fusiones–adquisiciones y por la demanda de obligaciones de rendimientos elevados por parte de los inversores institucionales. Este mercado, abierto también a las empresas de tamaño relativamente modesto, dispone de un gran potencial de desarrollo (su peso es significativamente inferior al que tienen los mercados estadounidenses de similares características).

#### **4. El euro y las relaciones Europa–América Latina**

Dada la importancia de sus relaciones con la Unión Europea, América Latina será seguramente afectada por la emergencia del euro. América Latina realiza casi el 15 % de su comercio exterior con la Unión Europea, en un marco de intensificación de las relaciones comerciales entre las dos regiones: a lo largo de los años 90 las importaciones latinoamericanas de productos europeos se incrementaron alrededor de 160%. Por otra parte, en este período los flujos de inversiones directas europeas hacia América Latina alcanzaron los mismos niveles que los provenientes de Estados Unidos y la implantación de los bancos europeos en la región aumentó de modo considerable. Así, en el caso de Brasil, uno de los países latinoamericanos que se caracteriza por la importancia de sus relaciones comerciales y financieras con Europa, se han identificado algunos efectos favorables y desfavorables del surgimiento del euro, a corto y mediano plazo, en el plano de la inversión directa, de los intercambios comerciales y del financiamiento exterior (Baumann y Abreu, 2000). Además, el hecho que las principales economías latinoamericanas hayan concluido (caso de México) o estén negociando (caso del Mercosur y de Chile) ambiciosos acuerdos de cooperación y de libre comercio con la Unión Europea debería reforzar los vínculos euro–latinoamericanos (IRELA, 1999).

Ahora bien, ¿cuáles serán los canales a través de los cuales se ejercerá la influencia del euro en América Latina? Cabe distinguir aquí dos dimensiones: la comercial y la financiera. A nivel comercial, las consecuencias del euro en las relaciones entre Europa y América Latina pueden resultar de varios factores: por un lado, el impacto de la disminución de los costos de transacción y del incremento de la competitividad al interior de la zona euro, como consecuencia de la introducción de la moneda única y, por otro lado, el efecto de las variaciones de la tasa cambio de la esta moneda en el comercio entre las dos regiones.

A pesar de que Europa constituye para numerosos países latinoamericanos un socio comercial importante (es decir, 20% o más de las exportaciones) (cuadro 4), no es de esperar que los efectos del euro en el plano comercial sean muy significativos. En efecto, dado el bajo grado de apertura comercial de una buena parte de los países latinoamericanos (y, en particular, de algunos de los que presentan relaciones comerciales más fuertes con la zona euro), no parece, a priori, que los cambios inducidos por las variaciones de las tasas de cambio reales efectivas, por la disminución de los costos de transacción o por las fluctuaciones del nivel de actividad en los países europeos tengan un impacto significativo en el crecimiento de las economías latinoamericanas (Levy Yeyati y Sturzenegger, 1999c).

créditos hacia América Latina representaron, en la década pasada, una proporción importante pero estable en el total de préstamos externos de los bancos europeos.

**Cuadro 5**  
**Estructura de la deuda latinoamericana, por moneda**  
*(en % de la deuda total)*

	DOLAR	EURO	YEN	OTRAS
Argentina	63.10	12.93	7.47	16.50
Barbados	37.27	0.00	6.43	56.30
Bolivia	35.10	10.97	12.20	41.73
Brazil	68.80	7.17	5.53	18.50
Chile	47.70	4.10	8.43	39.77
Colombia	64.03	3.80	5.47	26.70
Costa Rica	55.57	1.97	7.03	35.43
Dominica	60.23	13.37	0.07	26.33
Dominican Republic	65.37	3.33	6.70	24.60
Ecuador	73.80	3.03	4.40	18.77
El Salvador	57.33	6.27	2.70	33.70
Grenada	61.70	2.10	0.00	36.20
Guatemala	63.07	4.90	2.07	29.97
Guyana	61.83	2.03	0.17	35.97
Haiti	77.77	2.80	0.00	19.43
Honduras	50.87	5.87	9.33	33.93
Jamaica	49.90	3.83	8.30	37.97
Mexico	65.93	6.17	8.37	19.53
Nicaragua	66.73	9.23	1.93	22.10
Panama	81.17	0.13	4.90	13.80
Paraguay	34.73	9.57	21.73	33.97
Peru	48.13	12.37	13.07	26.43
Trinidad and Tobago	48.07	3.87	15.83	32.23
Uruguay	60.30	6.17	5.13	28.40
Venezuela	70.70	11.77	3.67	13.87

Fuente : World Bank (WDF, 2000)

La evolución en el plano de los créditos de la banca comercial no es, sin embargo, el aspecto más decisivo en la dinámica reciente de las relaciones financieras euro-latinoamericanas. Mucho más relevante es el incremento de las emisiones internacionales de bonos –principal fuente de financiamiento externo generador de deuda de la región latinoamericana en los últimos años–, en las que los empréstitos en euros se han caracterizado por su fuerte expansión.

En los últimos años, los países en desarrollo han participado de manera importante en el crecimiento del mercado de obligaciones en euros. Como lo muestra el gráfico 2, la proporción de la moneda europea en las emisiones totales de estos países, que se incrementa sostenidamente desde 1994, continuó aumentando en 1999, aunque luego retrocedió ligeramente en el 2000. Sin embargo, a pesar de este retroceso, que resulta de la disminución de las emisiones de obligaciones soberanas en euros (que representan un tercio del total en el 2000), prosigue la expansión de la emisiones de obligaciones privadas. La proporción de éstas se duplica en el 2000, pasando de 6% a 12% del total, en detrimento de las emisiones en dólares (gráfico 3). En cuanto a las emisiones soberanas, el retroceso constatado en el 2000 beneficia principalmente a las emisiones en yenes, dado que la proporción de las emisiones en dólares acusó una nueva caída. El porcentaje de éstas en el total de emisiones de los países en desarrollo registra así su punto más bajo desde 1993, si se excluye el año 1995 (gráfico 4).

Gráfico 5

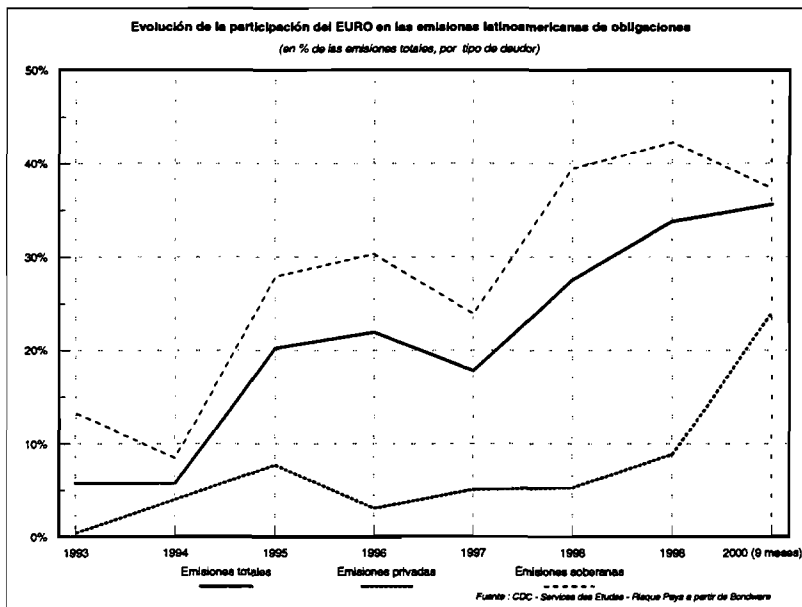
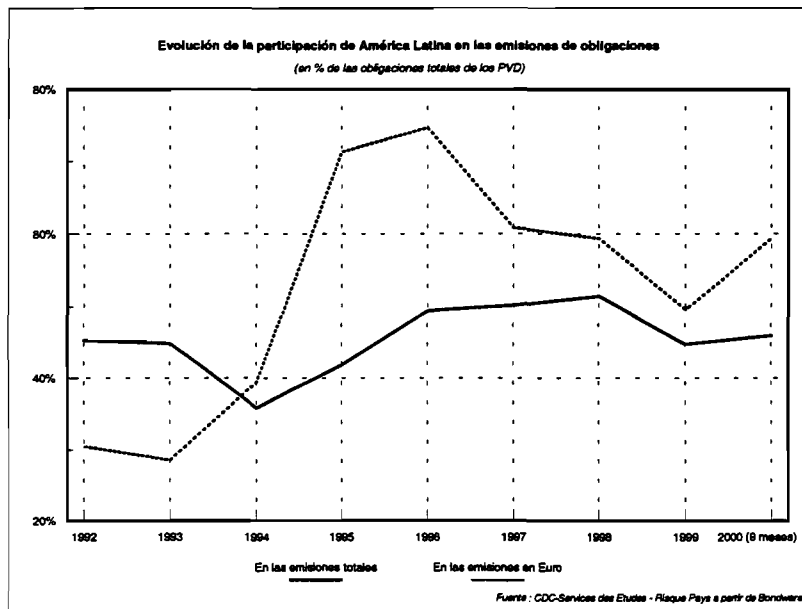


Gráfico 6



La prosecución de este proceso –un creciente endeudamiento en euros de los países latinoamericanos– tiene implicaciones en dos niveles diferentes pero interconectados. Por un lado, lleva a considerar con más atención la política de gestión de los compromisos externos de la región latinoamericana, así como el impacto sobre el servicio de la deuda del comportamiento de las tasas de interés en la zona euro. Por otro lado, obliga a reflexionar sobre sus consecuencias a mediano-largo plazo

menos en el corto plazo, el sistema actual no ha sufrido cambios tan sustanciales como los que habitualmente se señalan (es decir, retroceso de las políticas de anclaje a una divisa de referencia y generalización de las políticas de flotación libre). Por consiguiente, la flotación pura es mucho menos frecuente de facto (4%) que de jure (30%).

Estos resultados son en parte convergentes con los obtenidos por Levy Yeyati y Sturzenegger (1999b), que observan numerosos anclajes de facto. Asimismo, no se advierte un retroceso de los llamados regímenes intermedios (una de cuyas características es el anclaje a una canasta de monedas). Esto ha sido demostrado por Masson (2000), a partir de un análisis dinámico de las transiciones entre regímenes cambiarios.

**Cuadro 6**

**Los regímenes *oficiales* de cambio y su evolución (1983-1999)**

(En % del total de monedas de los países miembros del F.M.I., a diciembre de cada año)

Regímenes de cambio	1983	1988	1994	1999
<i>Cantidad de monedas</i>	146	152	181	187
<b>Anclaje fijo a una moneda (currency boards incluidos)</b>	<b>35.60</b>	<b>38.30</b>	<b>26.00</b>	<b>30.00</b>
Dólar	23.30	25.70	13.80	15.00
Franco, marco, euro	8.90	9.20	8.30	12.30
Otras	3.40	3.40	3.90	2.70
<b>Anclaje fijo a una canasta de monedas</b>	<b>27.40</b>	<b>25.70</b>	<b>13.30</b>	<b>9.60</b>
DEG	8.90	5.30	1.70	3.20
Ecu	0.70	0.70	0.60	0.00
Otros	17.80	19.70	11.00	6.40
<b>Flexibilidad limitada</b>	<b>11.00</b>	<b>7.20</b>	<b>7.20</b>	<b>5.90</b>
Mecanismo europeo de cambios	4.80	4.60	5.00	1.10
Otros	6.20	2.60	2.20	4.80
<b>Flotación limitada</b>	<b>19.90</b>	<b>17.80</b>	<b>19.90</b>	<b>23.00</b>
<b>Flotación libre</b>	<b>6.10</b>	<b>11.20</b>	<b>33.70</b>	<b>31.60</b>
<b>TOTAL</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Fuente : F.M.I., Annual Report on  
Exchange Arrangements and Exchange  
Restrictions, varios números

## Cuadro 8

## Comercio, deuda y regímenes de anclaje de facto

## Cuadro de correlaciones

	Dólar	Euro	Yen	Dólar	Eurobin	Yenbin
Dólar	1.000	-0.969	-0.612	0.911	-0.937	-0.589
Euro	-0.969	1.000	0.396	-0.859	0.884	0.393
Yen	-0.612	0.396	1.000	-0.634	0.649	0.927
Dólar	0.911	-0.859	-0.634	1.000	-0.865	-0.602
Eurobin	-0.937	0.884	0.649	-0.865	1.000	0.652
Yenbin	-0.589	0.393	0.927	-0.602	0.652	1.000
<b>Estructura de la deuda por moneda</b>						
En Dólares	0.019	-0.044	0.069	-0.032	-0.021	0.096
En Euros	-0.272	0.197	0.378	-0.356	0.292	0.350
En Yenes	0.205	-0.144	-0.292	0.213	-0.142	-0.251
<b>Grado de dolarización de las economías</b>						
Dolarizados	0.089	-0.016	-0.276	0.166	-0.154	-0.206
<b>Exportación de petróleo</b>						
Petroleros	0.140	-0.129	-0.104	0.144	-0.202	-0.155
<b>Estructura del comercio exterior</b>						
Con Estados Unidos	0.355	-0.352	-0.195	0.370	-0.371	-0.198
Con Japón	0.251	-0.240	-0.164	0.228	-0.222	-0.178
Con Europa	-0.451	0.458	0.211	-0.465	0.439	0.159

## Geografía y regímenes de anclaje

## Cuadro de correlaciones

	Dólar	Euro	Yen	Dólar	Eurobin	Yenbin
<b>Distancias geográficas</b>						
kmUS	0.017	-0.019	-0.005	-0.032	0.020	-0.043
kmJapón	-0.089	0.017	0.274	-0.143	0.092	0.241
kmEurope	0.446	-0.468	-0.162	0.454	-0.415	-0.174
<b>Zonas geográficas</b>						
AMERICA LATINA	0.341	-0.331	-0.208	0.398	-0.360	-0.179
CENTRAL	0.202	-0.199	-0.112	0.276	-0.195	-0.032
DEL SUR	0.245	-0.234	-0.162	0.240	-0.278	-0.210
ASIA	0.312	-0.284	-0.252	0.299	-0.287	-0.261
MEDIO ORIENTE	0.153	-0.132	-0.146	0.139	-0.161	-0.122
EUROPA	-0.358	0.456	-0.127	-0.209	0.273	-0.087
AFRICA	-0.364	0.253	0.539	-0.506	0.424	0.481
AFRICA-CFA	-0.532	0.365	0.805	-0.668	0.578	0.765
AFRICA-NCFA	0.047	-0.029	-0.085	0.001	-0.017	-0.118

Fuente :

Comercio: DOTS-IMF (2000)

Deuda: World Bank (WDI 2000)

Dolarización: IMF 174 (1998)

Regímenes de cambio: Bénassy-Quéré (2000)

Notas :

La cifras en negrita indican correlaciones estadísticamente significativas

De este cuadro se desprende, principalmente, que los coeficientes de anclaje están correlacionados con las variables comerciales y financieras. En efecto, la utilización del euro como moneda de anclaje de facto está significativamente correlacionada con la uso de la moneda europea como divisa de endeudamiento (0.197) y con la orientación geográfica del comercio exterior (0.458), es decir los casos en los que Europa es predominante como cliente y proveedor de los países considerados. Por lo tanto, no resulta sorprendente constatar que los países de Europa (Central, Oriental y del Sur), al igual que los países de África pertenecientes a la zona franco, tengan una fuerte correlación con la utilización del euro como moneda de anclaje de facto (ya sea como única moneda o como moneda dominante en las canastas de anclaje).

Un estudio econométrico en términos de probabilidades permite completar el análisis (cuadro9).

En lo que atañe al euro, la probabilidad de que un país utilice la divisa europea como moneda de anclaje disminuye cuando el comercio de un país se lleva a cabo de manera dominante con Japón o con Estados Unidos y aumenta si se realiza con los países de la zona euro, siempre y cuando éstos sean socios comerciales importantes. Igualmente, el ejercicio realizado confirma que la probabilidad de que se utilice la divisa europea como moneda de anclaje aumenta cuando una parte importante de la deuda exterior del país considerado está denominada en euros. Por otra parte, e inversamente a la ecuación que analiza la utilización del dólar como ancla, la probabilidad de anclar la moneda nacional al euro disminuye significativamente en el caso de los países exportadores de petróleo.

### 3. Una tipología de países

Las consideraciones realizadas hasta aquí pueden ser profundizadas con el fin de identificar el posicionamiento de los países de la muestra. Para ello, se realiza un análisis factorial en componentes principales (ver Anexo 2), que permite reagrupar los países con características comerciales, financieras y geográficas homogéneas. Veamos en primer lugar como se organiza la información tratada (cuadro 10).

**Cuadro 10**

Valores propios y correlaciones entre variables y factores principales  
Para los cuatro primeros ejes (significativos)

Valores propios	1	2	3	4
Valor	2.3966	2.0471	1.1904	1.0214
% de variabilidad	26.63	22.75	13.23	11.35
% acumulado	26.63	49.37	62.60	73.95
	factor 1	factor 2	factor 3	factor 4
Comercio USA	0.748	-0.089	-0.001	0.453
Comercio Japon	0.012	0.698	-0.031	-0.353
Comercio Europa	-0.719	-0.257	-0.029	-0.278
Deuda en dólares	0.606	-0.364	-0.220	-0.390
Deuda en yenes	0.055	0.658	-0.131	0.383
Deuda en euros	-0.601	-0.257	0.297	0.517
Distancia USA	-0.403	0.651	0.417	-0.146
Distancia Japon	0.122	-0.548	0.713	-0.141
Distancia Europa	0.641	0.362	0.593	-0.078

Las cuatro ejes principales representan el 74% de la variabilidad acumulada. En otras palabras, aproximadamente  $\frac{3}{4}$  de la información total contenida en las variables puede ser resumida en los cuatro ejes principales. El gráfico 7 permite identificar la oposición entre las variables más ligadas al dólar respecto de las que están más bien relacionadas con el euro.



A partir de una clasificación de los países considerados de acuerdo con sus coordenadas respectivas en el espacio factorial definido por los cuatro ejes principales se pueden identificar 5 grupos diferentes (cuadro 11).

**Cuadro 11**

**Tipología de países a partir de los resultados del AFCP**

Clasificación de las observaciones / Cantidad de países				
Grupo 1	Grupo 2	Grupo 3	Grupo 4	Grupo 5
15	26	16	22	14
Bulgaria	Benin	Bangladesh	Argentina	Cameroon
Croatia	Burkina Faso	Cambodia	Barbados	Congo, Rep.
Czech Republic	Burundi	China	Bolivia	Cote d'Ivoire
Dominica	Central African Rep.	India	Brazil	Egypt, Arab Rep.
Equatorial Guinea	Chad	Indonesia	Chile	Estonia
Grenada	Comoros	Jordan	Colombia	Gabon
Kazakhstan	Djibouti	Korea, Rep.	Costa Rica	Hungary
Latvia	Ethiopia	Lao PDR	Dominican Republic	Mali
Lebanon	Gambia, The	Malaysia	Ecuador	Morocco
Lithuania	Ghana	Mongolia	El Salvador	Niger
Poland	Guinea-Bissau	Nepal	Guatemala	Nigeria
Romania	Iran, Islamic Rep.	Pakistan	Guyana	Russian Federation
Slovak Republic	Kenya	Philippines	Haiti	Tunisia
Syrian Arab Republic	Madagascar	Sri Lanka	Honduras	Turkey
Ukraine	Malawi	Thailand	Jamaica	
	Mauritania	Vietnam	Mexico	
	Mauritius		Nicaragua	
	Mozambique		Panama	
	Paraguay		Peru	
	Senegal		Trinidad and Tobago	
	Seychelles		Uruguay	
	Sierra Leone		Venezuela	
	Tanzania			
	Togo			
	Zambia			
	Zimbabwe			

Un segundo ejercicio econométrico que toma en cuenta las coordenadas de los países en el plano factorial (que resumen la información de las variables utilizadas para calcular los ejes factoriales) confirma que el hecho de exportar petróleo aumenta la probabilidad de anclar la moneda nacional al dólar y disminuye significativamente la probabilidad de anclarla al euro. A su vez, un grado elevado de dolarización de la economía aumenta fuertemente la probabilidad de anclar la moneda nacional al dólar y disminuye sensiblemente la probabilidad de anclarla al euro (cuadro 12).

#### 4. Implicaciones para América Latina

A pesar de su aparente obviedad, los resultados obtenidos no están exentos de interés. La "radiografía" presentada permite confirmar que, lógicamente, la preeminencia del dólar como moneda de anclaje es favorecida por los factores inerciales. Además, el grado de dolarización de las economías consideradas, así como la intensidad de las relaciones financieras y comerciales con Estados Unidos, son factores que refuerzan el rol del dólar como moneda de anclaje. De este modo, prácticamente ningún país de la región latinoamericana escapa a la zona dólar. En el marco de este análisis, los "clivages" que a menudo se evocan para distinguir México y los países de América Central, por un lado, de los países de América del Sur, por otro, no parecen relevantes.

Por otra parte, resulta evidente que la utilización del euro como única moneda de anclaje parece limitada a los países cuyas relaciones comerciales y financieras con la unión monetaria europea son muy fuertes (grupo 5 de nuestra tipología, constituido por países africanos y europeos del centro y del este, principalmente). Como lo muestran por ejemplo Boone et Maurel (1999) el euro constituye, para estos países, una moneda regional de anclaje más "natural" que el dólar. En particular, los países de Europa central y oriental y los del norte de África, que efectúan una buena parte de su comercio exterior con la zona euro, presentan ciclos de actividad bastante coincidentes con los de Europa y estructuras de especialización relativamente próximas a la europeo-occidental.

No obstante, de los ejercicios realizados se desprende también que el euro participa, en numerosos casos (grupos 1 y 2 de nuestra tipología), en canastas de anclaje de facto. Este punto es importante: en una perspectiva de mediano-largo plazo, no debe desdeñarse el potencial del euro para incrementar su participación en las canastas de anclaje. En efecto, otro de los resultados de este estudio es que la probabilidad de anclar una moneda nacional al dólar disminuye fuertemente cuando aumenta la participación de las deudas denominadas en euros.

Ahora bien, como ya se vio, en el caso de los países latinoamericanos se constata, desde 1997, un incremento en la participación de la emisión de obligaciones denominadas en euros en las emisiones totales. El cuadro 14 muestra que, para un grupo de países seleccionados –las economías más grandes de la región–, la utilización del euro como moneda de endeudamiento se desarrolla rápidamente. Más precisamente, la participación del euro en la emisión de títulos públicos alcanzó niveles muy elevados en el caso de Argentina, Brasil, Colombia y Venezuela. Chile constituye un caso especial: la participación del euro llegó a 100% en el 2000, pero en realidad se trata de la única emisión de un país que durante los últimos años no emitió obligaciones soberanas. Se constata además que, a pesar del aumento registrado en los últimos dos años, la proporción de las emisiones en euros en las emisiones privadas totales es todavía reducida (excepto el caso mexicano en el 2000).

Por otro lado, como se puso de manifiesto en la segunda parte de este trabajo, el compartimento internacional de las obligaciones privadas en euros se caracteriza por una fuerte expansión. No es por lo tanto improbable que las firmas latinoamericanas se orienten cada vez más hacia la emisión de deuda denominada en euros. La creciente penetración de los bancos europeos en América Latina y el auge de la inversión extranjera de origen europeo en la región podrían reforzar esta tendencia.

De esta manera, los países latinoamericanos que participen más activamente en el proceso de desarrollo de la moneda única europea como divisa de endeudamiento podrían considerar, a mediano-largo plazo, el uso del euro como moneda de anclaje en el marco de canastas. Obviamente, el dólar seguiría ocupando un lugar preponderante en esas canastas de monedas, habida cuenta del estatuto de la divisa estadounidense en la región latinoamericana.

Esta hipótesis es consistente con los análisis efectuados en la literatura tanto teórica como aplicada sobre la elección de las monedas de anclaje. Para Bénassy-Quéré y Lahrèche-Révil (1999) por ejemplo, la orientación relativamente diversificada –en el plano geográfico– del comercio exterior de algunos de los

En la medida en que la credibilidad esté asociada en América Latina al establecimiento de una relación estrecha con el dólar (en el marco de anclajes de jure o de regímenes de flotación que impliquen anclajes de facto a la moneda estadounidense) y, de alguna manera, con la Reserva Federal, la posibilidad de adoptar canastas en las que el euro participe se verá limitada. Cabe sin embargo formular dos argumentos que permiten matizar esta observación.

Por un lado, como lo señalan Levy Yeyati y Sturzenegger (1999c), con el lanzamiento del euro, el Banco Central Europeo podría ofrecer, si su política se revela exitosa, una nueva alternativa –en el mediano o largo plazo– a los países en búsqueda de credibilidad. Aun cuando, evidentemente, tanto la Reserva Federal como el BCE son extremadamente reticentes a cualquier propuesta que implique compartir el manejo de la política monetaria con terceros países, este último podría ser, según estos autores, menos reacio a la idea de establecer algún tipo de acuerdo cambiario con ciertos países de la región latinoamericana. El llamado Sistema Monetario Europeo bis (SME bis), acuerdo cambiario que liga la Unión Europea con otros países del viejo continente que son candidatos a la adhesión, constituye un antecedente interesante en este sentido aunque, por supuesto, no sea en principio trasplantable a otros países o regiones.

Por otro lado, los factores ya señalados que actúan en favor de la perspectiva de la adopción de canastas de anclaje podrían verse potenciados por el escenario internacional de mediano–largo plazo que se privilegia en este trabajo. En efecto, un SMI cada vez más bipolar pero asimétrico supone una elevada volatilidad entre las dos principales monedas internacionales. En este contexto, un anclaje exclusivamente centrado en el dólar podría revelarse nefasto para los países caracterizados por relaciones comerciales y financieras importantes con la zona euro. Por el contrario, el anclaje a una canasta en la que esté incluido el euro sería un elemento decisivo para reducir la vulnerabilidad –y, por ende, acrecentar la credibilidad– respecto de los bruscos cambios en la paridad de las principales divisas de referencia.

## Conclusión

Varias conclusiones provisorias pero robustas se desprenden del análisis realizado.

En primer lugar, en lo que respecta a la evolución del SMI, el escenario de mediano–largo plazo que parece más plausible, habida cuenta de los primeros pasos del euro en la escena internacional y de las enseñanzas de la teoría económica, es el de un duopolio cada vez menos asimétrico. Aun cuando esta hipótesis es por supuesto discutible, parece verosímil considerar que el dólar conservará su posición hegemónica por un buen tiempo en el marco de una evolución gradual hacia una bipolarización creciente del SMI. En una configuración de déficit de cooperación monetaria internacional, este escenario supone una elevada volatilidad entre las dos principales monedas internacionales, lo cual constituirá un poderoso factor de desestabilización para los terceros países.

En segundo lugar, los dos primeros años de existencia de la moneda europea confirman que su uso creciente en las operaciones financieras –que tienen actualmente un peso mucho más importante que las operaciones de bienes y servicios– constituirá un vector decisivo (aunque insuficiente a largo plazo) en su proceso de internacionalización. A su vez, la expansión que caracteriza a los mercados de bonos en euros no es neutra en términos de efectos sobre los mercados de capitales de la zona de emisión. El desarrollo de los compartimentos de obligaciones debería incrementar, junto con otros factores, la presión para que el mercado financiero del euro sea cada vez más amplio, líquido y profundo. Esto debería favorecer el desarrollo de mejores condiciones de plazo, de refinanciamiento, de cobertura y de arbitraje, tanto para los operadores europeos como para los operadores de terceros países.

En tercer lugar, una consecuencia importante del creciente uso financiero de la moneda única europea y del desarrollo de los mercados de capitales del "Euroland" es que esto debería inducir, a mediano y largo plazo, una mayor diversificación, en favor del euro, en materia de reservas internacionales oficiales. En un contexto de liberalización financiera, la composición por divisas de las

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Argentina	Costa Rica	Guinea-Bissau	Malaysia	Russian Federation
Bangladesh	Cote d'Ivoire	Guyana	Mali	Senegal
Barbados	Croatia	Haiti	Mauritania	Seychelles
Benin	Czech Republic	Honduras	Mauritius	Sierra Leone
Bolivia	Djibouti	Hungary	Mexico	Slovak Republic
Brazil	Dominica	India	Mongolia	Sri Lanka
	Dominican			Syrian Arab
Bulgaria	Republic	Indonesia	Morocco	Republic
Burkina Faso	Ecuador	Iran, Islamic Rep.	Mozambique	Tanzania
Burundi	Egypt, Arab Rep.	Jamaica	Nepal	Thailand
Cambodia	El Salvador	Jordan	Nicaragua	Togo
				Trinidad and
Cameroon	Equatorial Guinea	Kazakhstan	Niger	Tobago
Central African				
Republic	Estonia	Kenya	Nigeria	Tunisia
Chad	Ethiopia	Korea, Rep.	Pakistan	Turkey
Chile	Gabon	Lao PDR	Panama	Ukraine
China	Gambia, The	Latvia	Paraguay	Uruguay
Colombia	Ghana	Lebanon	Peru	Venezuela
Comoros	Grenada	Lithuania	Philippines	Vietnam
Congo, Rep.	Guatemala	Madagascar	Poland	Zambia
		Malawi	Romania	Zimbabwe

**MACROECONOMICS AND REGIONAL INTEGRATION: EMU AND THE  
STABILITY PROGRAMMES  
SOME POSSIBLE LESSONS FOR LATIN AMERICA**

By  
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## Introduction

With globalization and the slackening grip of national regulations and policy-makings, there is a tendency to argue for the need for world-wide level regulation and governance while a new development of "regionalism" has also appeared since the world economy has become more multi-polar, both on the real side and on the monetary one. In such a context, policy-makers face the difficult issue of defining the optimal level of governance and the kind of regulation a world market economy needs for operating smoothly and efficiently. The issue is deep-rooted and goes well beyond technical or economical domains since it involves fundamental philosophical choices about the kind of society we would like to live in, not to speak about the cultural opposition between the "interventionist centralism" of the Latin culture and the "individualistic decentralism" of the Anglo-Saxon one.

As it is known, the institutional building of the European Union represents an original, challenging mixture of different cultures (roughly speaking the concrete working of the European Union combined for the first time in history the three major cultural features which constitute the Western World: Latin, Anglo-Saxon and German practices). This aspect might constitute an experience of special interest for other regions, especially for Latin America and the Caribbean, when they consider the issue of the optimal level of governance for coping with the globalization wave of our economic world. All the more with the precedent of the ongoing implementation of the EMU and its single currency, the Euro, since the regional integration appears more clearly as a possible option towards a more regulated and stable globalization. Furthermore, the emerging trends towards an uncoordinated dollarization in Latin America calls for a deeper reflection about practical alternatives at regional level.

Therefore, ECLAC considers it useful to examine closely the macroeconomic provisions of the EMU and the European Union experience in this field as a way to spur the debate in Latin America about the macroeconomic dimension of regional integration.

In this context, and in order to provide ECLAC and the policy-makers of the region with possible useful pieces of thought, I invite the distinguished audience of this XI regional seminar, to follow me on a special European journey.

Before focusing on the macroeconomic framework of the EMU, I feel it is important to widen the scope of the technical fiscal area by dedicating some broader development to the roots and to the context of the emergence of the European model for integration. Since the purpose of the organizers of this regional seminar is to deal with some macroeconomic aspects of the EMU with a view of assessing its possible relevance for the Latin American region, it is indeed important to start by encompassing some very broad principles which allow for assessing better the European experiment. Once one dares to make analysis with a view to drawn lessons from one region to another one, there is a need for adopting a wider scope (in time as well as areas and their interconnections). By the way, this provides to me a nice opportunity to pay a special tribute to the genuine intellectual father of the Euro, the Belgian economist Robert Triffin from Yale and Louvain Universities.

This is why this paper choose to starts by looking backwards to some fundamental aspects at work in the case of the European experience, allowing to underline some basic principles that I believe are still valid and useful for LDCs and more specifically for Latin American countries. After the section dedicated to remembering these important backgrounds, I will present the macroeconomic regime of the EMU as a whole – its philosophy and main provisions, before to examine further the modalities of the Stability programmes. Upon these inputs, I will try to present some conclusive points for the region in order to launch a frank debate amongst the policy-makers.



an institutional framework that could introduce some degree of coordination, reducing national autonomy for the sake of preserving external stability. The solid realism of the Belgian economist, allied to his cosmopolitan idealism, made him perfectly aware that this was easier to apply first among like-minded countries sharing common cultures and economic proximity.

The most famous contribution he made in that direction - the so-called *Triffin's dilemma* - was to warn the Bretton Woods system that the dollar-standard as the use of a national currency for international purposes was a logical non-sense for reaching an optimal creation of international liquidity. Since the very beginning of the dollar-standard, thus well before his book of 1957, Triffin already argued that to restore a world-wide system of multilateral trade and payments through the establishment of the IMF and the restoration of sterling as a key currency was condemned to fail and that *new methods of regional cooperation were required*, at least for Europe at that time. Thus Triffin's transparent bias in favour of regional rather than world-wide agreements led him to become one of the earliest proponents, active negotiators and most ardent defenders of the European Payments Union (EPU) which fulfilled the vacuum left by the failure of the sterling convertibility in 1947 and the weakness of the IMF at that early time. Indeed, in 1947-48 the resources in dollar of the IMF were already exhausted and the Marshall plan represented 20 times the borrowing rights of Europe from the IMF. Drawing upon the EPU success, he developed the theory that *"regional arrangements of this character, while admittedly discriminatory in some respects, can accelerate and consolidate progress towards world-wide currency convertibility, introduce elements of stability in international economic relations, and help limit the international spread of recessions and restrictions."*<sup>4</sup>

During the fifties his analysis showed that the obstacles to the restoration of currency convertibility in Europe no longer lied *"in the weakness of its economy, in its inflationary proclivities or in the shortage of dollars, but in fears and uncertainties regarding the future harmonization of nationalistic trade and monetary policies in an interdependent world"*<sup>5</sup>.

At this stage, I let the audience to assess itself by how much this almost half-century old sentence remains crucially true for the time being in Latin America. Furthermore, having in mind the crisis succession of the ERM in 1992-93, the Tequila in 94, the Asian in 97, the Russian in 98, the Brazilian in 99, and the...next coming ones, it is worth to remind that for Triffin at that time the maintenance of the ideal full convertibility was impossible among fully national sovereign states without crisis.

Although basically this diagnostic seems to reflect what will appear in the sixties as *"Mundell's triangle theorem of impossibility"* i.e. the impossibility to maintain simultaneously autonomous national monetary policies, fixed exchange rates and free movements of capital, Triffin's position goes further.

For Mundell, the efficiency of the markets is equivalent to opt for flexible rate as a way to solve the monetary dilemma through the markets. As the events that occurred after the collapse of the fixed exchange rate system tended to show, Mundell's position relied upon the implicit hypothesis that all the currencies are equivalent substitutes, allowing for the markets to respond efficiently to the international demand for money. It is now clear that these hypotheses were not present in the real world. Triffin, in *tempore non suspecto*, perceived the same impossibility but without any triangular equivalence.

Now, History will increasingly show how much he was right, and the facts already demonstrated the validity of the European approach. Historians of the European reconstruction and integration

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<sup>4</sup> ibid. page x of the Introduction

<sup>5</sup> ibid. page 86.

especially for drawing the attention upon the crucial role of the "political economy" and institutional aspects of regional integration.

**First of all**, it is especially important to recall that in Europe, the monetary reconstruction was intimately linked to the trade integration. In fact, as Triffin insisted at the time, the European bilateralism was deprived of its major underpinning overnight by the creation of the EPU. That means that the convertibility aspects were the first step towards opening the way for gradual trade integration. Contrary to these historical facts and sequencing, our European integration process is generally presented by journalists and external observers - even by some historians - as a trade integration first, then a gradual, slow and painful process of macroeconomic cooperation for being in condition to create and extend a genuine EMU with a single currency: the single market first, then the single currency crowning the economic integration process (the so-called completion of the first pillar of the EU). The result is an "institutionalist view" of regional integration as a juridical process starting first and overall by preferential trade agreements allowing for a progressive construction of a single market and moving slowly towards financial and monetary integration, to which an eventual political step would be added later. Along with this conception is the idea that this whole process relies upon a progressive shift of political power and decisions at national level towards the supra-national one as this would be a "natural law of history" leading us towards a federal state in Europe.

My position is that it is not so much a wrong reading of our history and model, it is overall a wrong understanding of the way the present world works.

**1° The globalized world of today has significantly changed the issue and the sequencing of regional integration.**

- ◆ In the 50s and 60s, the trade aspects were crucial and were the main drive of the European integration but were organized in the Bretton Woods framework of current account convertibility and fixed exchange rates (a quasi-monetary union or dollarization except for capital transactions). This means that the custom union focused the political attention while the other policies were either automatically co-ordinated through the exchange rate constraint or allowed to diverge through capital controls and the complexities of the different national regulations.
- ◆ Nowadays, the capital liberalization and the GATT achievements impose a new dynamics, reducing the attractiveness and efficiency of the Custom Union model for economies whose currencies are not yet fully convertible or/and exposed to wild capital movements. Other fields of regional cooperation are becoming crucial. Even more than it was for Europe in the 50s, macroeconomic and monetary stability are essential prerequisites for trade integration. Economic agents would be very reluctant to lend credibility to a trade agreement in any regions if the exchange rates between their main partners were again to be changed from 1 to 2 in a few weeks time?
- ◆ With the globalization, the importance of financial integration has become fundamental for the competitiveness of a region, this was not so much the case in the past in Europe. The monetary and financial field has become a key-area for the success of any regional integration.
- ◆ Market sanctions and power have risen everywhere putting emphasis upon the efficiency and resilience of regulatory and prudential framework as well as the quality of the policies and of the general governance including the transparency of public decisions.

**Conclusion:** the globalization process has reversed the respective roles of the advantages brought about by regional integration: the static advantages of preferential trade have become less important than the dynamic advantages of the institutional building and the improvement in the decision making process.

priorities. By putting together the decision-makers of neighbouring and like-minded LDCs, the "collegial" dimension might create a catalyst effect as a result of the peer pressure review:

- ◆ a mutual vigilance results progressively from the fact that it is in all actors' individual interest to respect and to make effectively respected by the others the common rules or consensual views
- ◆ transparency effect and automatic benchmarking increasing the degree of consciousness of their own problems
- ◆ competition amongst the policy makers motivating them to demonstrate their ability to implement adequate policies (especially if there is a conditional carrot from outside donors) as well as for monitoring the partners' development and policies
- ◆ but also cooperation is stimulated towards gaining credibility and weight in front of the donors, the financial markets and the economic agents
- ◆ better capacity to resist against vested interests and national lobbying
- ◆ emulation and valorization of the national experts in charge of preparing the decisions, whose national responsibilities are improved
- ◆ importance of closer personal relationship between technicians and policy-makers
- ◆ economies of scales in the design and implementation of difficult reforms
- ◆ easier argumentation for facing public opinions and voters, generally sensitive to the political aspect of their own integration (prestige)
- ◆ better credibility and internalization of policy requirements and structural adjustments when they are recommended by their own regional economists (by comparison with the same kind of recommendations issued by the IMF staff or external donors); for the same reason, greater political acceptance of peers' critics in comparison with external critics
- ◆ development of a broader public debate on economic policy, increasing the chance to create countervailing powers even where democracy is not warranted

This non-exhaustive list of arguments shows several important advantages of open regionalism which make it a potential driving force for institutional changes. These arguments are not theory but "common-sense" combined with concrete political economy based upon personal experiments I had the opportunity to witness in different regions of the World, and especially in the CFA area (Sub-Saharan Africa) when these countries decided to move from mere monetary unions to genuine EMU, i.e. to complement their single currencies with single markets and schemes of regional mutual surveillance of their economic policies.

### **3° The domino effect of Regional Integration**

The next step in my argumentation is that the formation of integrating regions creates external positive impacts able to trigger a new dynamic. There is a potential domino effect, which should be similar to the domino effect created by the formation of the European Community in 1957.

Some important lessons must also be recalled from the European case:

- (i) much of the success of the EC is due to the simultaneous external opening of the custom union, in conformity with the GATT rules (and thanks to the United States vigilance and pressures): successful regionalism needs to be under increasing external competition pressure for reducing the "rent-seeking" temptation and the trade deviation effects
- (ii) this emerging united trade block spurred the world opening: negotiations easier with third countries by pooling trade policies into a single voice; vested interests and lobbies weaker at supranational Community level than at the national one; third country exporters and competitors put their own government under pressure for bargaining better access to the emerging common market by opening their own domestic market. This mechanism of "widening" is the following: a firm's sales and

#### 4° The systemic impact of the regional dynamics

The final step in my argumentation is very "Triffinian": such regional dynamics, if successful among LDCs and Transition economies, should take place in a broader international order which in turn could be easier to implement and to manage thanks to the intermediary regional level which allows for some decentralization of responsibilities. As Triffin wrote in the fifties: "*Institutions as the IMF and the proposed OTC...should also lean heavily on the regional organization and agreements that promote their basic objectives...*" since "*Regional cooperation is far more likely to succeed in developing habits of continuous consultation and negotiation over a broader range of governmental responsibilities; and it may...gradually evolve toward the actual merging of areas too small and too interdependent on one another to preserve national welfare and security on the basis of national sovereignty exercised within present political boundaries*"<sup>11</sup>

As developed first by Triffin, the advantages of such an intermediary level are an issue of subsidiarity: some levels of decision making should be broader than the national one but do not always need to (or could not) be universal since the regions are different while they present some like-minded features which ease the organization of policy coordination among participating countries.

Provided some regions could launch their own form and method of macroeconomic cooperation, there is a chance to see a new "deepening-widening" dynamics which should naturally improve the rationality of policy-making. With better macroeconomic policies and faster institution building, the deepest cause of financial instability would be under better control, contributing to a more resilient financial architecture. The IMF should work closely with the regional institutions as intermediary levels for the implementation of their own recommendations. It would be possible to associate the regional experts to examination under article IV of the members of a regional surveillance scheme, and progressively and case by case, it should be conceivable to integrate the results of the regional surveillance exercises into the assessment of the IMF. In particular, the use of IMF resources or other donors assistance could involve the regional levels to some degree. The common interest of both levels is a better appropriation of the adjustment policies, which cannot reduce the prerogatives of the IMF, on the contrary, and the IMF assessments are helpful for establishing and increasing the credibility of the regional mutual surveillance. This would mean a progressive and adjustable decentralization by region of the IMF functions. One of the significant advantages would be to enable the limited IMF staff to specialize more and to focus its energy and actions upon the most systemic aspects of the IMS and the most urgent needs and the weakest regions.

As regards the industrialized countries, the realization of EMU in the European Union has already accelerated the move towards a better balanced multi-polar monetary system. The progressive establishment of an alternative to the dollar should increase the chances of improving the international cooperation and especially the international monetary coordination. The main reasons are the reduction in the number of players, the more symmetric gains and relationships among similar economic and monetary poles, and the growing internalization of the external impacts of their own policies (see below).

A typical objection to this point is the risk of a "*benign (or malign) neglect*" of these big blocks with respect to the external impacts of their policies, and especially to the exchange rate behavior. While it is true that the exchange rate loses part of its traditional importance for small or medium economies, giving more room for manoeuvre in the monetary policy field, it is not true that their policy makers would not pay attention to the exchange rate and to the impact of their own monetary stance upon the world

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<sup>11</sup> Triffin, Robert. 1957 Ibid. page 304

Much more than "*the currency for the single market*", the Euro emerges as a stable currency issued by an independent Central Bank working *within a new coordinated policy framework* and, particularly, within the budgetary scheme of the Growth and Stability Pact. Two important points developed in the following sections, are that (i) the macroeconomic aspects of the Euro are indeed dominant and potentially powerful for improving the world economic order, and (ii) although the Euro brings positive systemic changes thus reducing the risk of macroeconomic mistakes, complete success of EMU is not automatically guaranteed; it requires appropriate macroeconomic policies as well as product and labor markets operating with sufficient flexibility, i.e. conditions which are not automatically conferred by EMU as such, but that EMU will help to meet, by acting as a catalyst for further changes which are needed in any case to solve Europe's structural problems.

## 2. Economic policy setting in EMU

### 2.A. The convergence mechanism as a need for restoring to growth and employment

The successful EMU process and its sustainability depend on the principle of "convergence" of economic policies and performances, whose operational content is defined by quantitative criteria but in fact by a collegial scrutiny which has been tested for a long preparatory period. These so-called "Maastricht convergence criteria" - in terms of inflation, exchange rate behavior, interest rate gap, budgetary deficit and public debt ratio - show that price stability and sound public finances are the two first basic principles for both joining and ensuring the sustainability of EMU because they are also the two basic conditions needed to ensure sustainable growth. This why all the European Union Member States adhere to these criteria, even those that do not participate in the full EMU. The only consequence for the non-EMU members is that the non-respect of the convergence criteria does not leave them open to the same enforcement procedures.

On the macroeconomic side, it is important to see EMU as a device carefully prepared for securing and facilitating the operation of what is known as the convergence mechanism, in particular by improving the institutional framework on which policy-setting in the European Union and each of its Member States depends. Furthermore, this essential feature must be assessed, not with respect to the ideal "textbook case", in which a benevolent and ever rational national authority chooses the best policy mix, but with respect to the real complex European scenario and the tendencies national authorities actually displayed in the pre-EMU regime.

Basically, the convergence mechanism is the means chosen by different sovereign authorities and heterogeneous institutions to re-balance, through their own means and choices, the distorted global policy mix which kept all of them in a "*slow-growth trap*" and led to massive unemployment. As a result of their increasing integration, the problem had become a common one and therefore required, to some degree, a common solution. The mistakes of some Member States tended to spill over onto others as the resulting financial sanctions -worsened by the intra-European exchange rate crisis- had a major macroeconomic impact on the whole Community. This assessment is clearly demonstrated by a look back over the macroeconomic trends seen in Europe since the first oil shock.

In several Annual Economic Reports and in the 1993 *White Paper on Growth, Competitiveness and Employment*, the Commission services attributed the disappointing growth and employment trends mainly to past macroeconomic mismanagement, which pushed growth potential downward and contributed to a lower actual growth performance.

- a purely classical component (about 40%) due to the lack of profitably-usable capacity but which could be progressively corrected through a balanced growth process with capacity-expanding investment since those workers are able to match the created new posts, and
- a purely structural component (the remaining 40%), also due to a lack of existing equipment but which the growth process would be not enough to remedy as there the available manpower is not suitable for filling the kind of jobs that the growth process generates (mismatch).

C) This Commission's diagnosis, which was fully endorsed by Member States (1993 White Paper, successive Broad Economic Policy Guidelines, Joint Employment Reports and Employment Guidelines) clarifies the macroeconomic purpose of the EMU and its convergence mechanism. It is a coherent set of macroeconomic policies backed by strong Treaty provisions for creating a credible stability framework in order to reap lower risk premium in interest rates and a higher saving/investment balance. These policy and institutional provisions (i.e. the EMU strategy) aim at solving the macroeconomic obstacles to growth and employment in order put the European Union economy on a higher potential growth path by:

(a) preventing stability conflicts between monetary stability and budgetary and wage developments, thus making room for investment (crowding-in) through budgetary consolidation, wage moderation and the corresponding reaction of monetary policy allowing for a policy mix favorable to demand prospects,

(b) making it necessary and easier to implement a broad set of structural reforms in labor, product and service markets, in order to raise the limits on the speed growth, facilitate the re-incorporation of workers into the labor market and improve the human capital.

The essential macroeconomic purpose of EMU is therefore to create and preserve conditions which are conducive to a policy mix favorable to growth. The concrete architecture of policy-setting in the EMU regime is outlined immediately below, and section 3 goes on to examine budgetary surveillance through the stability and convergence programmes.

## **2.B. The economic policy framework of EMU.**

### **2.B.1. The two main channels for adjustment without national monetary policies**

The most obvious aspect of EMU is that the exchange rate and interest rates can no longer be used at the national level, since monetary policy shifted from national authorities to a new autonomous, supranational, single authority. But, at the same time, the EMU also constitutes a full economic union in order to provide the alternative mechanisms needed to adjust the national economies which are pooling their monetary tools. The following paragraphs develop the philosophy, main components and provisions of the architecture of this new European Economic Union. Before proceeding with a detailed examination, it is useful to briefly mention the **main alternative mechanisms** for adjustment, upon which the EMU in the European context and experience rely.

There are basically two: (i) the budgetary policies through the automatic stabilizers or discretionary actions and (ii) the functioning of products and factor markets in the context of Single Market completion.

- (i) Unlike federated entities like the United States, the European Union budget will not be able to help cushion shocks incurred by individual Member States in replacement of national monetary policies. However, this role can actually be played by each individual budgetary policy, which, unlike federated entities, is still available in the European Union for this purpose within the limits of the sound management imposed by the EMU rules. As pedagogically illustrated by the Mundell-Fleming textbook model, in a fully pegged system of exchange rates (i.e. in such a model it is equivalent to a monetary union) national **budgetary policies** have stronger effects on the

collegial and ongoing search for the best policy mix through "self-correction" provides "a priori" more flexibility than a more centralized one. This is probably less risky because it relies on a consensual process and is a better reflection of the idiosyncrasy and diversity of European populations.

According to the Treaty provisions, national policies clearly cannot be fully independent but must be subject to some Community rules and principles in specific areas of common interest. Therefore, such a coordination principle makes it possible to define and apply a genuine economic policy at the Community level, by avoiding, when necessary or useful, stalemates or situations in which there is a lack of economic government. The fact that this is only true for these specific cases where common economic objectives are at stake, means that, as regards its first pillar, the European Union is not and cannot be ruled as a single state, but is managed collegially within the Council of National Ministers in the presence of the Commission responsible for protecting the Community interests, through the coordination principle in combination with the competition resulting from the subsidiarity principle. This original construction cannot be reduced to an Inter-governmental type of management like for example the United Nations, the OECD or regional entities like Mercosur. It relies upon profound consensus and explicit choices made by European policy-makers and peoples. Therefore, by limiting autonomy only in the case of gross errors, it allows most of the economic policy domain to remain firmly in the hands of national or local authorities – rather than at the level of the Union– for efficiency reasons as well as by deeply rooted political choice. Thus, a request for instituting a more formalized economic government would be premature and would go against the basic principle of European construction at this time, since the risk of moral hazard needs to be solved first.

With respect to the interplay between the three autonomous poles of the European policy mix, it appears that EMU offers even greater opportunities to achieve an optimal policy mix than used to be the case in Europe or than would be the case without a single currency. Let us examine why this is so, by looking at each pole under the new regime.

1. With the Euro, by definition, **monetary policy** becomes centralized for its members under the responsibility of an independent System of Central Banks (ESCB). However, the coordination issue remains in terms of the policy mix for the Union as a whole. This is one of the reasons used by some commentators to justify claims that the single Central Bank should face a single economic authority with which it could manage the global policy mix. In addition to the coordination scheme and the budgetary discipline which, as outlined above, make the Council into just such a single-voice authority, in **Article 105.1** the Treaty complements the primary objective of price stability that the monetary policy shall pursue: *without prejudice of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2, i.e. growth and employment.*

The implementation of the above provision of Article 105.1 means that the *macroeconomic policy mix will be favorable to growth and employment insofar as national budgetary policies and wage behavior of the social partners do not counteract the essential stability objective of the single monetary policy.* This is the **basic theorem of macroeconomic policies in EMU formulated in the Broad Guidelines**: the more Member States' budgets and social partners' wage setting contribute to the common stability objective, the more favorable to sustainable growth and higher employment the monetary stance can be.

Both links established by the Treaty from Article 2 through Article 98 and Article 103 for the coordination of national economic policies, and between Article 105-1 and Article 2 for the coordination

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Council Recommendation of 7 July 1997

up and clarify the implementation of the excessive deficit procedure, in particular by establishing clear definitions and setting deadlines for the various steps (see section 3 for a more detailed analysis).

### 2.B.3. Wage developments

Generally represent the outcome of negotiations between autonomous social partners, which, according to differences in national practices among Member States, are held at different levels of centralization (national, sectoral, or firm). Thus, in terms of decision-making, their direct role and responsibilities in wage setting as well as in the labor market conditions, make the social partners the third essential pole for setting macroeconomic conditions, and therefore the policy mix. Indeed, wage trends are a key ingredient of macroeconomic and structural policies. The macroeconomic wage bill (including all social security contributions) is equivalent to about 50 per cent of Community GDP, i.e. the same order of magnitude as total government spending in the Community's economy. Consequently, the evolution of aggregate wages and wage differentials has substantial implications for inflation, growth, employment and the employment-content of growth. Indeed, firstly it is of crucial importance that the perception of the expected rate of inflation embodied in nominal wage settlements is, as far as possible, compatible with the price-stability objective of the central bank. If this is the case, wage developments *de facto* do not place an undue burden on the conduct of monetary policy, contributing to keep interest rates at low level. Secondly, as regards real wage rises compared with increases in productivity<sup>1</sup>, wage evolution at the macroeconomic level has to take into account the need for safeguarding, and if necessary improving, the profitability of investment, which is a basic requirement for securing the much-needed recovery of the potential output in Europe. In view of their economic importance, it is warranted that policy-makers closely monitor wage developments, whilst fully respecting the autonomy of the social partners in this area. This is why the broad economic policy guidelines issued on the basis of the Article 103-2 have taken a position on wage development. In the Commission recommendation of May 1996, this position was worded in the following terms: "*nominal wage trends consistent with the price stability objective as well as real wage developments consistent with the conditions for strengthening employment-creating investment*"<sup>2</sup>

As regards the involvement of the social partners in the coordination of economic policies, Amsterdam, Luxembourg and Cardiff European Councils have made clear that the **social dialogue** should be part of the process. This why the European agreed upon a **European Employment Pact** Council in Cologne in June 1999. This links the different pieces of the policy-setting and allows for the social partners to be involved in the policy mix through the establishment of a "**macroeconomic dialogue**" among themselves and with the main other economic policy actors (the ECB and the Council). However the decentralized nature of the social partners means that their effective involvement is not so procedure-orientated.

Articles 138 and 139 underline the importance of the social dialogue between management and labor. In this framework, the European social partners have the opportunity to obtain technical support from the Commission, to maintain a fluid dialogue with it, and to speak with one voice by issuing "Joint opinions" on macroeconomic development and problems. In this context they have made significant contributions to the content of the Broad Guidelines recommended by the Commission. For example, in

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<sup>1</sup> When comparing at the macroeconomic level wage and productivity developments, it must be taken into account that for the Community as a whole, almost half of the apparent labour productivity increase comes from the substitution of labour for capital. Distributing all the apparent productivity increase would maintain a high pressure for substitution among factors and prevent restoration of an adequate macroeconomic profitability of investment. In addition, despite the fact that the share of profits in GDP is presently above its level of the 1960s, further increases in profitability are still warranted in order to compensate for the significant increase in capital/output ratio that took place during the 1970s and arrive at the level of profitability per unit of capital stock that prevailed during the quasi full employment period 1961-73. Finally, the world-wide determined level of real interest rates tends to be higher than in the 1960s, which confirms the need for a higher level of macroeconomic profitability.

<sup>2</sup> European Economy (1996)



i.e. including fiscal and structural policies, contribute to the achievement of Article 2 objectives, namely growth and employment. In this context, the improvement in the functioning of goods, services and labour markets, also contributes to achieving a favorable policy mix, by enhancing competition and reducing inflationary tensions. The structural aspects thus complement the macroeconomic ones, showing that the Euro brings a dynamic of change with both micro and macro dimensions.

Section 3: The strengthened mutual surveillance of budgetary policies through the stability programmes of EMU

### 1. The political economy argument behind the Stability and Growth Pact

From the previous section it appears very clear that budgetary discipline is the key building block of the convergence process and of the sustainability of EMU as well as of any sustainable growth in the EU. The purpose at this point is not to reiterate the economic arguments (see above section 2) which are now largely recognized, but to examine other fundamental aspects. Although we have already discussed the main aspects and instruments of budgetary surveillance in EMU, a more detailed presentation brings forth interesting information for the purposes of this paper and of the fiscal seminar.

As demonstrated earlier, the slow-growth trap that undermined the European Union economy was mainly due to unsustainable national budgetary development. With or without EMU, the objectives of the European Union Treaty could not be reached without an adequate degree of budgetary discipline. The EMU was instrumental in making this crucial step economically and politically viable and less costly than it would otherwise have been. Indeed, the purpose of the single currency was to serve as a very active catalyst through a combination of three mutually reinforcing factors: (i) the single currency was only possible if credible stability provisions were in place that would ensure it would be at least as good an anchor as the existing one, the DM; the fact that an EMU without this currency anchor was meaningless warranted a change of regime which should improve policy credibility; (ii) politicians and public opinion competed in taking the necessary steps for convergence; and (iii) overall, thanks to its strong and credible institutional mechanisms, EMU exerted significant downward pressure on national interest rates through market expectations. Meanwhile, financial markets have magnified every credible effort made towards budgetary consolidation through a reduction in the specific risk premium included in national interest rates ("convergence trade of bonds"), while severely penalizing any hesitation or lack of policy credibility by means of speculative attacks against the currencies that are at risk of not being able to join. The convergence process became self-fulfilling and self-rewarding for the initially more divergent economies, as the countries plagued by the highest deficits and public debt levels –which were also the ones with the highest interest rates in their own currencies (highest risk-premium)– stood to reap the largest benefits from joining the single currency in the event that they launched credible adjustment programmes. This obvious principle is true in any case, with or without EMU. However, the role of EMU was to give the less credible countries or governments a less costly and more rapid means of attaining something akin to German policy's reputation for stability, discipline and credibility, thanks to its surveillance scheme. The institutional progress resulting from regional integration thus constituted a "positive-sum-game".

Nevertheless, the (positive or negative) market sanctions that ensured the success of the convergence process before joining the Euro automatically disappear from the national level once the different national currencies merge into or join the Euro. In fact, in a monetary union, market sanctions tend to have a blanket effect on all the participants without discriminating satisfactorily between the respective national responsibilities or merits. This typically creates a risk of moral hazard because, once inside the Euro area, national budgetary authorities could be tempted to behave as "free-riders" (either by

1. Monitoring and targeting a precise surplus of the "**primary balance**", i.e. the budgetary balance (in % of GDP) minus interest payments on public debt. The assessment of each country's case is based on a few key parameters which determine the prospects for interest payments (size of the debt and expected nominal interest rates) compared to the budgetary prospects (existing budgetary system, government commitments and programmes, receipts and expenditure structures, and growth and inflation prospects). The results of this comparison should show a trend in the primary surplus that will enable it to cover interest payments (or a significant part of them) in order to cut the deficit and lower the debt ratio.
2. The fundamental **distinction between cyclical and non-cyclical movements** in the budget balance. Although there is no formal requirement in the SGP to supply figures on cyclically adjusted budget balances, the activity of balancing the budget over a normal cycle makes an implicit distinction between actual and structural budgetary positions. The Commission's assessment is therefore largely based on cyclically adjusted budgetary balances (and the primary balances of point 1) as well as on the changes in their expenditure and receipt sides. This makes it possible to distinguish between "automatic" movements (which are attributable to cyclical factors) and discretionary policy measures, and it is therefore feasible to assess the extent to which the automatic stabilizers are coming into play. This is especially important in the European Union in order to avoid the past errors of building up structural deficits and applying pro-cyclical policies.
3. The Commission calculates a budgetary "**cyclical safety margin**" for each Member State, which is used to estimate a "minimal benchmark" that must be reached to ensure probabilistically safe conditions. The margins are obtained by multiplying the budgetary sensitivity to the cycle (the automatic stabilizers) by an output gap estimate which encapsulates the size and frequency of cyclical fluctuations in each economy's output. Estimates of budgetary sensitivity are arrived at by measuring the impact of a rise/fall in GDP on public expenditures and revenues. For the Euro-area, it has been estimated that a 1% fall in GDP relative to trend will increase the deficit by around 0.5%. The difference between the 3% reference value and the estimated cyclical safety margin is what is known as the country's "minimal benchmark", a level that will allow the built-in stabilizers to work freely without breaching the 3% deficit ceiling. The Commission adds other safety margins to these minimal benchmarks, i.e. for unforeseen budgetary developments (the budgetary consequences of mistakes in the macroeconomic forecast, especially the rate of growth and the interest rate levels). The Commission's calculations show that an **additional margin for "pure fiscal" shocks** of between 0.5% and 1% of GDP is enough to provide extra security, depending on the differences amongst Member States.
4. However, experience and empirical calculations show that the different routes to reducing the deficit - raising taxes or cutting expenditure - do not have the same effect on budgetary consolidation. Essentially, increasing the tax burden, unlike spending cuts, generally has a negative effect on the growth rate of the economy (in the EU). Another difference is the way in which the interest rate reacts. Moreover, the composition of expenditure cuts also has an important impact on budgetary adjustment, since some types of expenditure have an impact on growth or are more irreversible than others (for example empirical evidence shows that cutting public employment and transfer programmes is conducive to better growth performance than cutting capital expenditure). In fact, the more credible the cut in the deficit, the easier and the faster the consolidation, thanks to the reduction of the risk premium inherent in the interest rate. This reduces the deficit both directly, through debt service, and indirectly, as a result of its positive impact on investment, activity and employment creation. For all these reasons, the implementation of the SPG tends to take **key structural budgetary indicators** into account to improve the assessment of the quality of the adjustment path or the genuine soundness of public finances.

On the basis of the Commission's recommendation, the Council examines and delivers an Opinion on each programme. This may contain an invitation by the Council to a Member State to adjust its programme if, in the Council's view, the objectives and contents of the programme need to be

(from 51.5% in 1993 to 47.2% in 1999) since the overall tax burden (total revenue) increased by just 1.2% (from 45.4% to 46.6%).

Although the public sector continues to be considerably larger than in 1970 (12 GDP percentage points higher) –13% higher than in the United States and 20% higher than in Japan– this development indicates that the European Union is progressively benefiting from systemic progress in the management of its public finances. Indeed, in addition to the Maastricht criteria, the SGP has created a **forward-looking framework** where more emphasis is placed on the distinction between cyclical and non-cyclical movements in the budget balance. In this framework, an improvement that has been particularly important is the calculation of **minimal safety margins** for each Member State, to keep deficits below the 3% reference rate during normal cyclical downturns.

The SGP saw full implementation in 1999, along with the single currency. The first set of programmes was submitted at the end of 1998. Given that deficits in the European Union still averaged –1.4% (–2% in the Euro-area), the programmes duly aimed at making progress toward the medium-term target of in-balance budgets by 2003. According to the Council's assessments, only five countries fulfilled totally SGP requirements, while the others were asked to improve their budgetary safety margins for 2002. In fact, with an average deficit of –0.6% of GDP, the European Union budgetary **performance in 1999** (–1.3% for the Euro-area) turned out to be better than expected. It represented an improvement of 0.3 GDP percentage points on the target of –0.9% committed in the Stability and Convergence programmes (and was 0.1% better than the –1.4% committed for the Euro-area). This modest over-achievement occurred despite lower growth than initially projected in several Member States. At the end of 1999, Member States updated their programmes and announced a further deficit cut of 0.8% in the European Union and 1.2% in the Euro-area for the period 2000-2003. These additional reductions, however, will be achieved by the combined effect of a reduction in the interest burden and improving growth conditions, i. e. no further structural improvement in the Euro-area is to be effected and a small discretionary deterioration in the European Union as a whole would even happen. This development would result from a reduction in the tax burden along with spending cuts. **Results for the year 2000** were, once again, better than expectations and targets, with the average deficit for the European Union (without including the one-off proceeds from the sale of mobile phone licenses, equivalent to 1.2% of GDP ) falling to just –0.1%, as against an average commitment of –0.7% of GDP (for the Euro-area, the deficits fell to –0.8% in comparison with an SGP commitment of –1.1%). While these results are positive, they are, in fact, largely attributable to increased revenues resulting from the cyclical upturn rather than reduced spending. Since the actual outcome was better than forecast, the committed minimum paths for deficit and debt reduction were overshoot. However, it should not be concluded that Member States have genuinely surpassed their SGP targets. Actually, if we take into account the fact that the starting position in 1999 was better than expected, and that growth in both 2000 and 2001 will be higher than was assumed in the programmes, the adjustment efforts committed by Member States should result in the SGP targets being exceeded by 0.9% of GDP. In fact, the structural consolidation effort is waning as the growth dividend is used partly for tax cuts. In 2000, the cyclically-adjusted primary surplus already registered a small decrease i.e. a structural loosening.

Furthermore, as the output gap is expected to move into positive territory in 2001, the aggregate fiscal stance will become expansionary since substantial tax-cuts are not matched by expenditure reductions of a similar magnitude. Indeed the cyclically-adjusted primary balance is forecast to fall from 3.8% in 2000 to 3.5% in 2001 for the European Union and from 3.4% to 3.1% in 2001 for the Euro-area.

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<sup>^</sup> These exceptional public receipts are earmarked for reduction of the public debt or the increase of reserves for future pension liabilities.

2) The history of European integration offers some interesting hypotheses that I propose as principles to enrich the open debate amongst policy-makers:

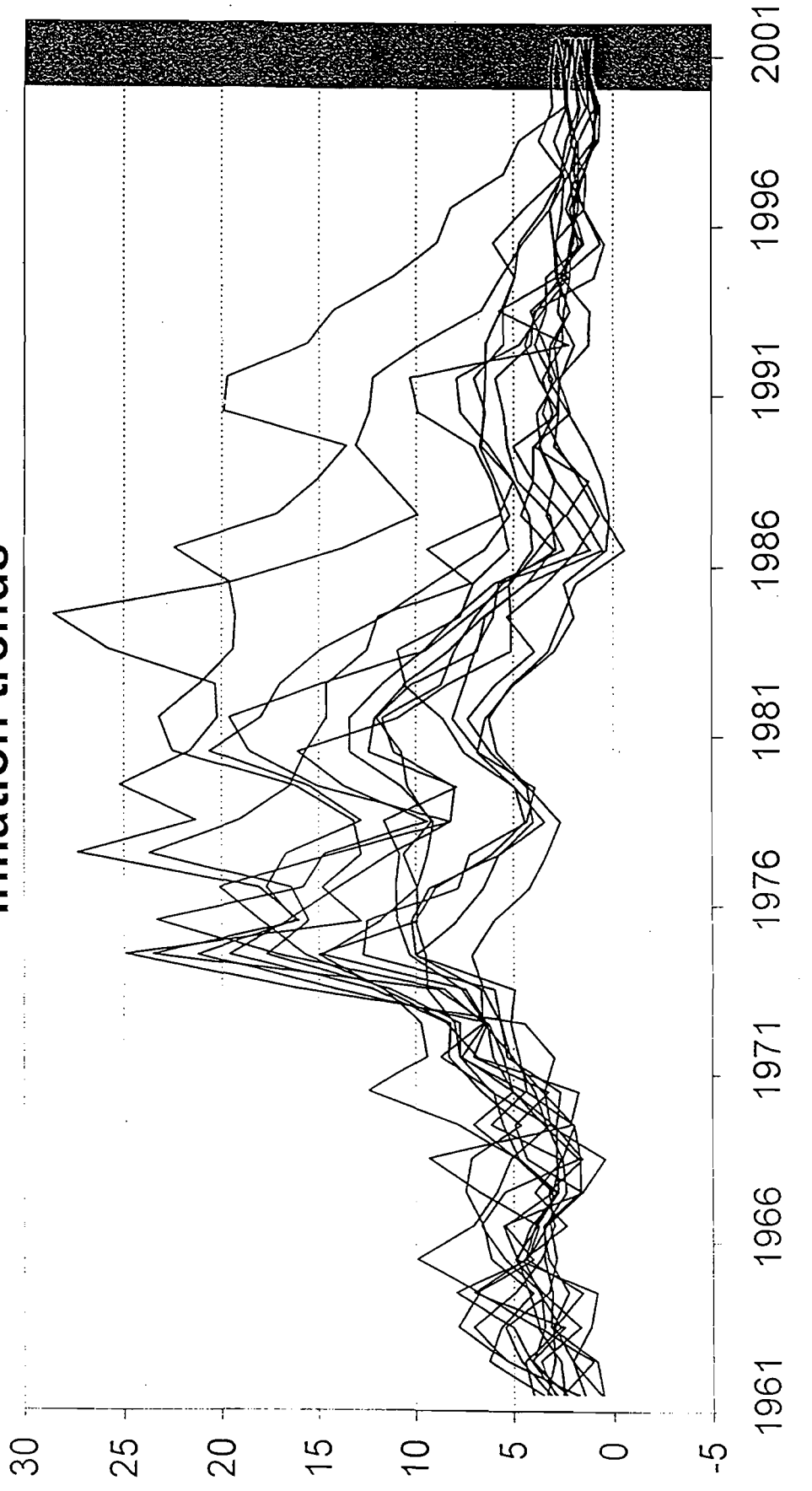
- Macroeconomic stability was a prerequisite for intra-regional trade development and the European Customs Union was implemented in a quasi-monetary union under the dollar-standard of the Bretton Woods regime. The popular view of a sequence involving successive and progressive steps from trade and customs union to financial and monetary integration with economic union might be an inaccurate representation of events and is, at the very least, a misleading simplification for other regions. Changes in the external context (globalization) have reduced the attractiveness and efficiency of the Customs Union model for economies whose currencies are not yet fully convertible or/and are exposed to erratic capital movements. Even more than for Europe in the 1950s, macroeconomic and monetary stability are essential prerequisites for trade integration. Domestic economic agents and external investors would be very reluctant to lend credibility to a trade agreement in any region in which the main partners' exchange rates were liable to double within the space of a few weeks, as used to occur in some regions of Latin America.
- Rigorously implemented, regional cooperation and integration constitutes a useful catalyst for accelerating the institution-building which is essential if countries are to cope with globalization and widen the road to sustainable growth. This is all the more true for the macroeconomic field, which is a major determinant of competitiveness and of the other conditions of economic and social development.
- There should be no need for Latin American regions to repeat the many decades spent by Europe in the "trial and error" process: their need to activate their capacity for institution-building is much more urgent. The fact that the European process was ultimately successful in general terms does not imply that every constituent part of that process would be appropriate here. The only valid conclusion is that the point of arrival indicates appropriate targets which could perhaps be reached faster. In addition, it must not be forgotten that European trade integration benefited from a model of macroeconomic cooperation that was automatically enforced through the Bretton Woods fixed parity regime.
- Latin American regions could make use of regional cooperation and immediate exchanges of best practices between national administrations, to tailor their own institutions, spare reform costs, mobilize efforts and innovative capacities, and improve the rationality and transparency of their economic decision-making process. These determinants of productivity improve and modernization are easier to channel in a suitable regional dimension which provides for explicit cooperation. It is not necessary to wait reaching a very advanced level of trade integration before to launch a macroeconomic co-operation at regional level. Such a cooperation is a practical way to improve the decision-making process, generate better policy credibility, and thereby accelerate growth and trade integration; with globalization this macroeconomic cooperation is no longer generated automatically by the exchange rate regime, it has to be created by the countries of the region themselves.
- Much of the success of the European Union is attributable to the external opening, simultaneously with integration, of the Customs Union, in conformity with the GATT rules (and thanks to the United States vigilance and pressures): **successful regionalism needs the pressure of increasing external competition** to minimize the temptation of "rent-seeking" and the effects of trade deviation. Furthermore, the European case shows that this activates the dialectic "**deepening-widening**" force, which drove the progress of the Community far beyond free trade; the basic reason for this is that as a region opens externally, it has ever greater needs and reasons to deepen its own internal integration. To remain competitive the Community was obliged to eliminate the obstacles that still stood in the way of a single market and to extend cooperation between national administrations to new fields (financial markets, monetary policies, prudential regulations, external policies, fiscal and domestic affairs etc...).
- Successful open regionalism creates **positive externalities**, triggering an emulation or attraction among close neighbors and third countries or blocks, and facilitating international negotiations. Although the costs and consequences of a "block war" admittedly increase with the expansion of

be appropriate or to view the EMU experience as a single block they have to buy or to reject as a whole. The fact that the much divided Europeans were able to design and agree upon workable schemes of cooperation and surveillance only for the extreme case of moving toward a single currency, does not mean that other regions which are not yet in conditions to implement full monetary and economic union need also remain trapped in the same "prisoner dilemma". The macroeconomic history of the European Union during the 25 years between the end of the sixties and the beginning of the nineties is an impressive succession of macroeconomic mistakes and lack of cooperation, which exacerbated divergences and conflicts, weakening the European Union growth potential and creating unacceptably high levels of unemployment. However during this period the slow but progressive groundwork led to the natural selection of a few workable procedures and rules that ultimately made the EMU possible. These procedures are widely valid and would have been very useful earlier in the process. It would be lamentable historical error if the Latin American authorities and economists – now that such an example of what not to do is becoming a public good – were to emulate the Europeans' past reluctance to cooperate. There is no rational reason for failing to seize the opportunity: they must select those elements that are appropriate for their own case, and try out their own new macroeconomic cooperation schemes.

6) Allow me to conclude with a synthesis, an attempt to place in a logical sequence the steps of my personal view of the potential lessons and normative proposals that may be drawn from the European Union macroeconomic experience:

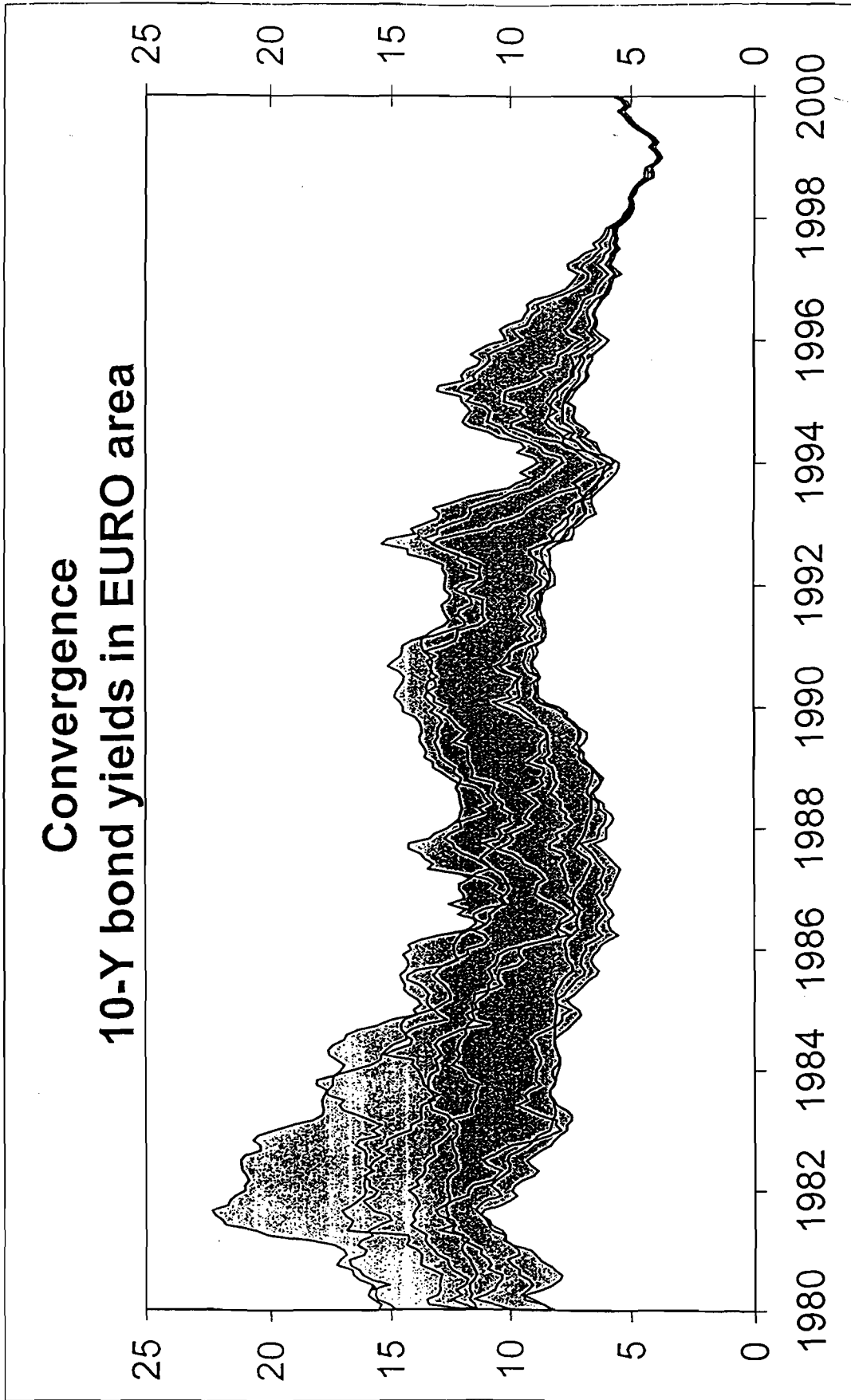
- Successful regional integration must be driven by sustainable growth, and both require macroeconomic stability and **convergence**.
- Any lasting convergence process relies upon **budgetary discipline**.
- Ensuring budgetary discipline is a tough "political economy" challenge that is easier and sounder to solve through collegial monitoring among like-minded countries by using a **rule-based, mutual surveillance** mechanism. Such a mechanism must fully respect the subsidiarity principle in order to prevent weakening the policy responsibility ("moral hazard"). Mutual vigilance results from each autonomous participant's own interest in preventing the others from breaking the agreed common rules, in combination with the specialized efforts of a neutral actor (the European Commission), which is responsible for formulating and protecting the common interests of the region's participants (the Community goals).
- Building an adequate surveillance mechanism at the regional level requires first **macroeconomic dialogue** and cooperation amongst national administrations and central banks, based upon (starting from) statistical harmonization efforts (i.e. along the lines of the GMM or Group of Macroeconomic Monitoring" recently launched by Mercosur) and seeking to progressively build consensual views on the content of economic policies, supported by open public debates and open to market sanctions.
- Launching a regional macroeconomic dialogue requires –at least– sharing common interests and problems and awareness of potential mutual **spillovers of national economic policy choices**. A macroeconomic dialogue does not require either institutional changes or formal procedures or decisions. All it needs is to work from the start in a collegial manner to build up the indispensable shared knowledge and confidence amongst policy-makers and macroeconomic experts, upon which personal links can develop, peer pressures can become effective and consensus can grow.
- In the European Union, the vehicle for progressively building macroeconomic dialogue was concern for **exchange rate stability** and the consequent collegial management of the exchange rate mechanism (ERM) created in 1979 by the EMS. Exchange rate behavior served to internalize the spillovers of national policies, creating incentives for cooperating and market sanctions for increasing policy credibility and effective co-ordination. Co-ordination became progressively the automatic result of the optimization of each national policy mix under the constraint of agreed rules and the scrutiny of markets able to sanction severely national authorities
- In **Latin America**, it appears to me that there are enough similar concerns with the dollarization issues, the high exposure to financial crisis and contagion, and the prospects for ALCA. It is therefore

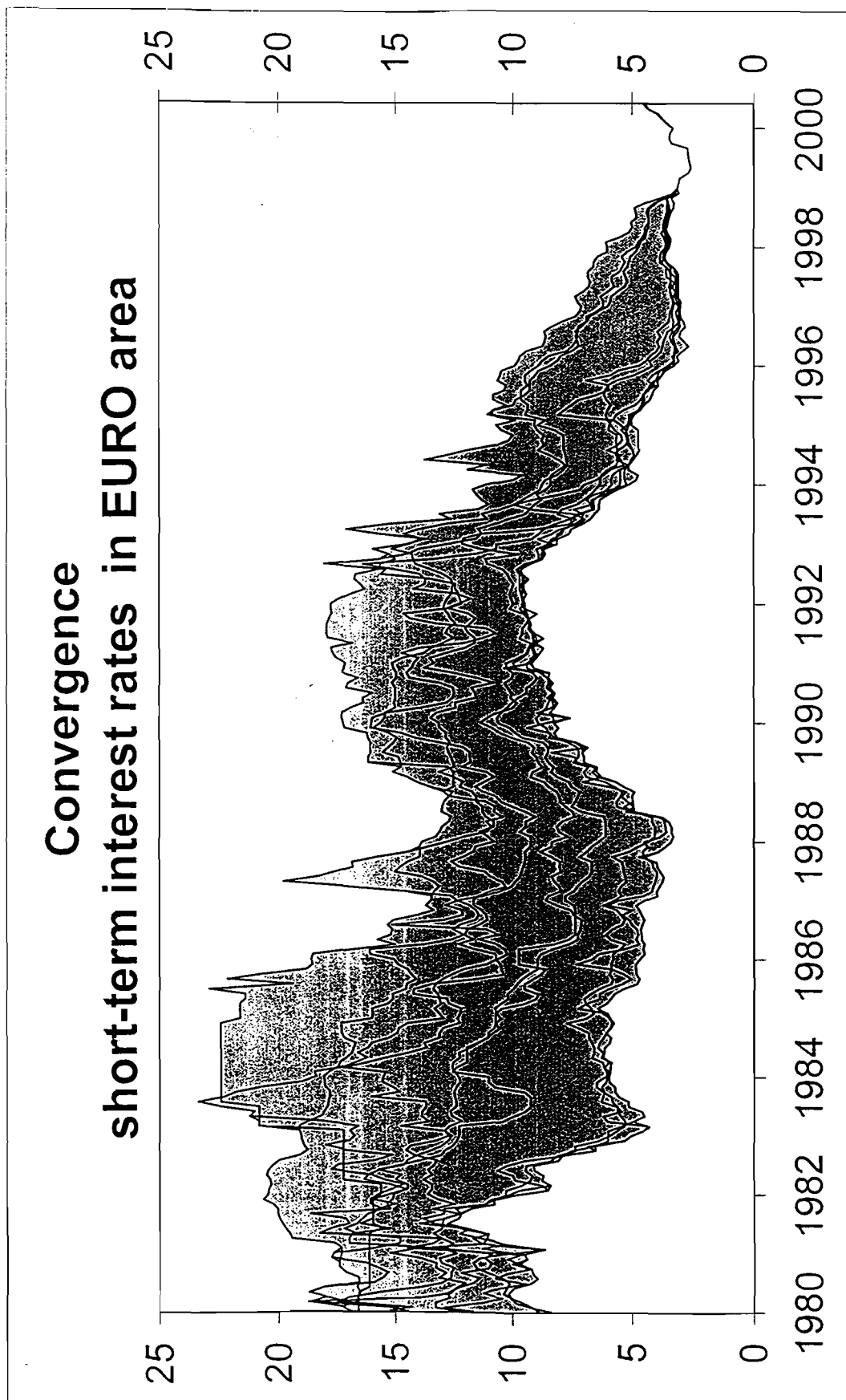
# Convergence in the EU Inflation trends



Private consumption price deflator

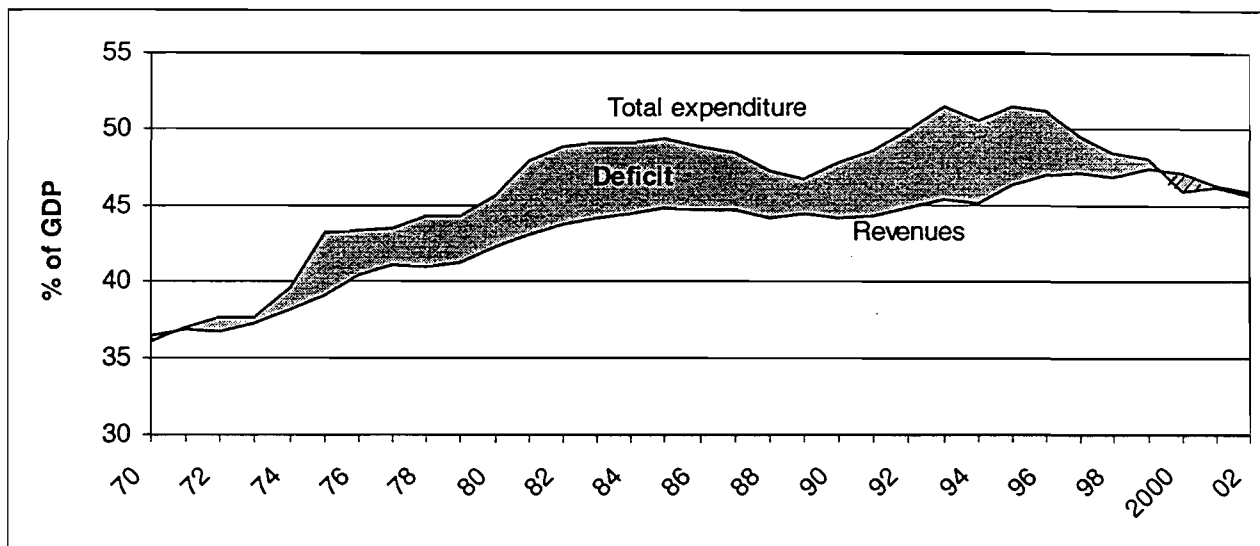
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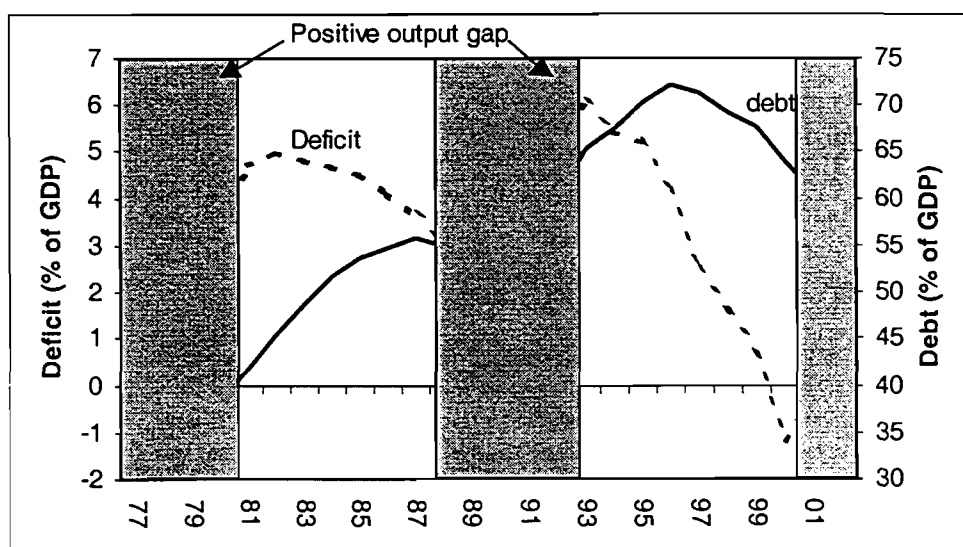


Graph 2.2. General government: expenditure, revenues and borrowing in the EU, 1970-2002



Source: Commission services

Graph 2.3. Budgetary imbalances in the EU 1977-2002



Source: Commission services

**SESION 3**

**ASPECTOS INTERNACIONALES DE LA TRIBUTACION  
EN AMERICA LATINA**

**CAMBIOS EN EL CONTEXTO INTERNACIONAL Y SUS EFECTOS EN LA  
TRIBUTACIÓN DE AMÉRICA LATINA Y EL CARIBE**

**Alberto Barreix y Daniel Alvarez<sup>1</sup>**

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<sup>1</sup> Alberto Barreix (INT/BID) y Daniel Alvarez (SHCP/México) en colaboración. Las opiniones expresadas en este trabajo son de sola responsabilidad de los autores. Un especial agradecimiento a Alberto Schunk (LIB/BID), Carla Salazar y Mónica Echeverría (INT/BID) y Cecilia Etcheoimberry por su colaboración.

Cuadro 1

## Indicadores de la Evolución de la Liberación Comercial de América Latina

	Año	Todos los Productos			Productos Primarios			Productos Industriales			Cobertura % Barreras No Arancelarias
		Arancel	Arancel	Desviación	Arancel	Desviación	Arancel	Desviación	Arancel		
		Medio	Medio Ponderado	Standard de Aranceles	Medio	Standard de Aranceles	Medio Ponderado	Medio	Standard de Aranceles	Medio Ponderado	
		%	%	%	%	%	%	%	%	%	
Argentina	1998	13.5	12.9	6.9	11.1	5.7	7.4	14.0	7.0	14.1	2.0
	1985	28.0		28.0							
Brasil	1998	14.6	16.6	7.3	11.3	5.9	9.1	15.2	7.4	18.3	8.0
	1985	80.0		52.0							
Chile	1998	11.0	10.9	0.7	11.0	0.0	11.0	10.9	0.8	10.9	0.0
	1985	36.0		10.0							
Colombia	1998	11.7	10.6	6.2	12.4	6.1	11.0	11.4	6.3	10.5	1.0
	1985	83.0		106.0							
Ecuador	1998	11.3	10.4	6.4	11.8	6.5	10.2	11.2	6.3	10.4	n.d.
	1985	50.0		145.0							
El Salvador	1998	5.7	4.3	7.9	10.0	8.4	6.5	4.4	7.3	3.8	0.0
	1985	53.2		31.0							
Guatemala	1998	8.4	5.7	9.5	8.6	7.3	8.3	8.3	10.1	5.1	0.0
	1985	50.0		45.0							
México	1998	13.3	12.5	13.5	16.8	29.0	14.6	12.6	7.8	12.0	10.0
	1985	34.0		56.0							
Nicaragua	1998	5.9	4.0	7.3	8.3	10.1	5.9	5.2	5.9	3.6	n.d.
	1985	54.0		43.0							
Panamá	1998	9.2	8.0	5.9	11.4	6.9	9.3	8.5	5.4	7.7	0.0
	1985	41.3		22.0							
Perú	1998	13.2	12.6	2.9	13.7	3.3	13.0	13.1	2.7	12.5	0.0
	1985	64.0		62.0							
Uruguay	1998	12.2	10.0	7.9	11.4	5.5	7.2	12.4	8.4	10.7	1.0
	1985	32.0		18.0							
Venezuela	1998	12.0	10.9	6.1	12.5	6.1	10.9	11.9	6.1	10.9	0.0
	1985	30.0		63.0							
Canada	1998	7.5	3.8	26.5	16.1	54.9	6.7	5.1	6.1	3.2	
Estados Unidos	1998	5.2	2.8	11.8	6.4	25.1	3.2	4.9	5.5	2.7	
Unión Europea	1998	6.0	3.5	5.6	9.4	8.1	3.4	4.8	3.9	3.5	
	1988	8.7	6.9	7.3	10.1	10.5	4.7	8.3	5.9	7.5	

Fuente: International Monetary Fund, Government Statistics and World Development Indicators (various issues); The World Bank; UNCTAD, 1987 Report.

A su vez, la liberalización de los flujos de capital acompañados por el desarrollo de las telecomunicaciones y el desarrollo de nuevos instrumentos de inversión han incrementado los movimientos de entrada y salida de capitales. El cuadro 4 recoge estadísticas del crecimiento del nivel de las transacciones financieras representado por tres flujos, neto de capital privado, inversión extranjera directa y de cartera para un período de tan sólo ocho años.

Cuadro 4

	Flujo Neto de Capital Privado		Inversiones Extranjeras Directas		Flujo de Carteras de Inversión				Préstamos relacionados con la Banca y el Comercio	
	US\$ millones		US\$ millones		Bonos		Capital		US\$ millones	
	1990	1998	1990	1998	1990	1998	1990	1998	1990	1998
Sudeste Asia & Pacífico	17,664	67,249	10,347	64,162	-952	1,870	1,053	9,007	7,216	-7,790
Europa & Asia Central	7,695	53,342	1,097	24,350	1,893	14,385	185	2,904	4,520	11,704
América Latina & Caribe	12,411	126,854	8,188	69,323	101	17,627	896	1,748	3,226	38,156
Medio Oriente & N. Africa	668	9,223	2,757	5,054	-148	1,340	0	878	-1,941	1,950
Sud Asia	2,174	7,580	464	3,659	147	4,185	105	351	1,458	-615
Africa (Sub-Sahara)	1,288	3,452	834	4,394	-31	250	0	679	485	-1,872

Fuente: International Monetary Fund, Government Statistics y World Development Indicators, The World Bank.

La liberalización de los controles de cambios, los flujos de capital y el desarrollo de nuevos instrumentos dotan de gran movilidad relativa al capital financiero. En efecto, esto genera competencia entre países para atraer capitales que resulta en una carrera a la baja de impuestos para reducir el costo del capital y así retener el ahorro propio y captar el externo. Adicionalmente, más sofisticados mecanismos de planificación fiscal de la estructura financiera (por ejemplo, sustituir dividendos por intereses en los casos que estos no estén gravados) sumado a los nuevos productos financieros brindan mayores posibilidades de arbitraje tributario y acentúan la tendencia a erosionar la base de los impuestos que gravan la renta.

En el cuadro 5 se efectúa una comparación del crecimiento de una serie de variables que confirman las tendencias expresadas anteriormente.

Esta variabilidad, obviamente sumada a otros factores repercute en una importante volatilidad en los agregados macroeconómicos y fiscales de la región tal como se observa en el cuadro 7 donde se destaca una importante variabilidad en los ingresos fiscales.

	América Latina	OCDE
Crecimiento del PBI	0.5	0.1
Tasa de cambio real	0.4	0.1
Términos de intercambio	0.4	0.2
Flujos de capitales (% PBI)	0.6	0.2
Ingresos	0.4	0.1
Gastos	0.2	0.1

Nota: la volatilidad se mide por la desviación standard  
Fuente: IMF, Government Statistics and International Finance Statistics (various issues); WB, World Development Indicators (various Issues).

A su vez también ha cambiado la estructura de gastos del gobierno en estas dos décadas presentando en la región una fuerte reducción en subsidios y remuneración de funcionarios. Adicionalmente, el gasto público en la región se presenta con importantes déficits en salud y educación por lo que presentan una alta elasticidad ingreso. Además, suelen ser políticamente procíclicos. Es por ello que varios países han tratado de establecer disciplina mediante leyes de prudencia fiscal (caso peruano) o fondos de estabilización (casos venezolanos). Sin embargo, la mayoría de estas reglas no fueron cumplidas a partir de situaciones coyunturales difíciles.

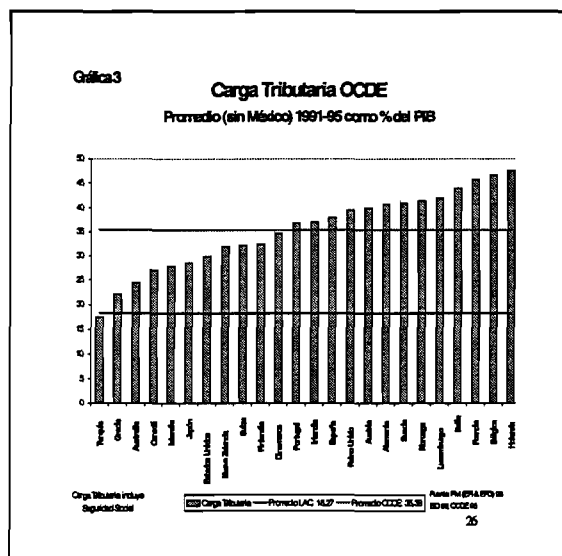
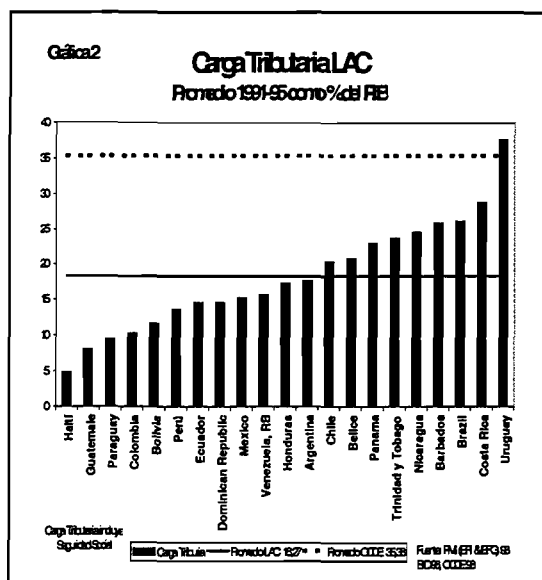
Cuadro 8

#### Comparativo de la Estructura del Gasto del Gobierno

	Mercancías y Servicios		Sueldos Y Salarios		Interés de pago		Subsidios y transferencias		Gastos de Capital	
	% del total de gastos		% del total de gastos		% del total de gastos		% del total de gastos		% del total de gastos	
	1980	1997	1980	1997	1980	1997	1980	1997	1980	1997
América Latina & Caribe	21	30	30	25	7	11	24	18	18	16
Medio Oriente & N. Africa	28	29	..	28	..	11	16	16	21	16
Sud Asia	31	34	13	10	12	20	26	22	17	15
Estados Unidos	29	22	11	9	10	15	43	51	6	3
Unión Económica Europea	24	21	13	11	4	9	50	55	9	4

Fuente: Fondo Monetario Internacional, Government Statistics y World Bank, World Development Indicators (varios tomos).

Las gráficas 2 y 3 nos permiten comparar la carga tributaria de la región con los países de la OCDE mostrando diferencias significativas en ambos grupos a nivel de sus países miembros.



La tabla 2 nos presenta un resumen agregado (por promedios simples) de la evolución de para un grupo de 18 países que representan casi el 98% del ingreso regional. En el período de casi una década el esfuerzo tributario aumentó casi un 10% liderado por el IVA.

Tabla 2

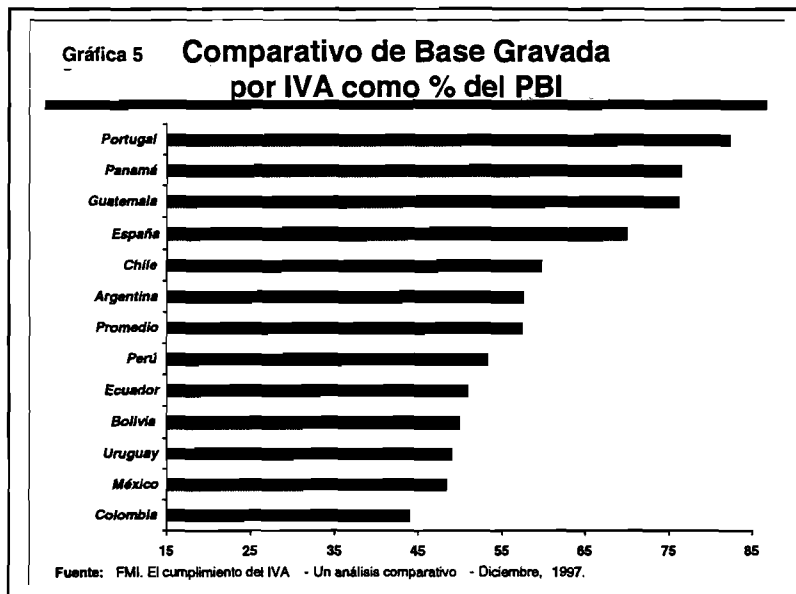
**Evolución de la Presión Tributaria en América Latina y el Caribe (países seleccionados)<sup>1</sup>**

	Promedio			Desv. Standard			Composición %		Cambio	Máximo		Mínimo	
	1984/6	1997/8	Difer.	1984/6	1997/8	Difer.	1984/6	1997/8		1984/6	1997/8	1984/6	1997/8
Ingresos Tributarios	21.0	23.0	2.0	6.9	6.8	4.2	100	100	9.4	35.6	37.7	7.8	10.2
Comercio Exterior	2.83	1.96	-0.87	1.8	1.3	1.6	13	8	-30.8	6.5	5.6	0.5	0.7
Aranceles	2.47	1.93	-0.54	1.7	1.3	1.6	12	8	-22.0	6.5	5.6	0.1	0.7
Imp. s/ Exportaciones	0.36	0.03	-0.33	0.6	0.1	0.6	2	0	-92.2	2.5	0.3	0.0	0.0
Sobre Venta	6.9	8.7	1.8	3.6	2.6	2.4	33	38	26.6	16.2	15.1	2.1	5.3
IVA	3.6	5.8	2.2	2.1	2.1	1.5	17	25	61.2	9.6	10.0	0.0	3.0
Específicos	3.2	2.9	-0.3	2.6	1.7	1.7	15	13	-8.2	12.0	7.8	0.8	0.6
Renta	3.7	3.8	0.1	2.7	2.1	1.2	18	17	3.5	10.3	9.3	0.6	0.9
Persona Física	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Persona Jurídica	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Seguridad Social	2.2	3.2	1.0	1.8	2.8	1.6	11	14	43.2	5.8	9.9	0.2	0.2
Otros Impuestos	5.4	5.3	-0.1	4.4	4.5	2.3	26	23	-1.7	17.8	19.1	1.0	0.7
Recursos Naturales	2.6	1.9	-0.7	4.5	3.8	1.4	12	8	-25.2	16.6	15.7	0.0	0.0
Otros	2.8	3.4	0.6	1.5	1.8	1.8	13	15	20.1	5.3	6.3	0.4	0.6

<sup>1</sup> Argentina, Brasil, México, Venezuela, Colombia, Chile, Costa Rica, Uruguay, Perú, Bolivia, Ecuador, Guatemala, Trinidad y Tobago, Barbados, República Dominicana, El Salvador, Nicaragua y Honduras.

Fuente: Administraciones Tributarias (Receita Federal de Brasil, DGI Uruguay, SAT Guatemala, SHCP-SAT México, SRI Ecuador, AFIP Argentina, DEI Honduras, SENIAT Venezuela, Fondo Monetarios (RED), Banco Mundial, The Economist Intelligence Unit (varios reportes).

Por ejemplo, Bes (1999) para el caso argentino, estimó que para sustituir la recaudación del impuesto a los ingresos de provincia por el IVA utilizando tasas diferenciales, las tasas del IVA en algunas de las provincias serían superiores al 25%. Es menester reconocer que una comparación de tasas debe ser acompañada por un análisis similar sobre la base gravada.



La gráfica 5 considera el alcance de la misma con relación al PBI sin descontar evasión. Si bien todas las mediciones basadas en cuentas nacionales pueden presentar dificultades técnicas importantes nos da una noción de la dispersión de las mismas y de las posibilidades de su expansión. En todo caso, podría reconocerse que en algunos casos existen posibilidades de crecimiento del tributo por base o tasa, pero en otros se observa cierto agotamiento

de las posibilidades de expansión del tributo central para la recaudación en la región. En el Anexo 1 se presenta una descripción del tributo en un grupo de países de la región.

Es muy importante acotar que una buena parte del esfuerzo en administración tributaria en Latinoamericana se concentró en los llamados controles de documentación (controles que facturación y mercadería en tránsito) que sumados a unidades especiales dedicadas a grandes contribuyentes y el uso intensivo de retenciones constituyeron la base de las reformas de gestión impositiva. Este esfuerzo tenía por objeto concentrarse en la imposición indirecta y relegar los esfuerzos en renta al uso masivo de retenciones en la fuente, en especial de naturaleza salarial.

Lamentablemente, por falta de datos no podemos hacer un análisis detallado de los impuestos específicos o selectivos al consumo. Si bien estos bajan su participación relativa tal como se observa en el cuadro 2, es posible que ello se deba a la sustitución de este tributo por el IVA. En la mayoría de los países latinoamericanos los selectivos gravan bienes con baja elasticidad de sustitución (por adicción) y con externalidades negativas en la salud, como son los derivados del alcohol (bebidas) y del tabaco. También incluyen la venta de vehículos nuevos y combustibles que tienen una relativamente baja elasticidad precio y que en parte sustituyen cargos correspondientes al uso de caminería sin peaje. Si bien el tributo es recaudado generalmente de productores oligopólicos, su principal problema administrativo es el contrabando.

También es importante reconocer la dependencia de un grupo de países por los ingresos derivados de recursos naturales no renovables (ver Anexo 3) que presenta una concentración y dependencia con aquellos países exportadores de petróleo.

Respecto del impuesto a la renta es importante destacar nuestros países presentan la relación más regresiva del cociente impuestos de renta sobre consumo tal como se observa en el cuadro 11. Sin embargo, podemos observar un crecimiento relativo del impuesto a la renta corporativa en comparación con el de renta personal. Esto indicaría que algunos elementos del diseño de la imposición a la renta personal tienden a reducir su rendimiento.



Cuadro 12

## Impuesto a la Renta en 1997

	Tasa Marginal más alta del Impuesto Personal		Tasa de Renta de Corporativa	Renta Mínima Imponible	Ingreso per Cápita <sup>1</sup>	Renta Mínima Imponible <sup>2</sup>
	Tasa Marginal %	sobre Renta US\$	en %	(en Ingreso per cápita)		(en Ingreso Per cápita Ajustado)
Argentina	33	120,000	33	1.6	11,944	19,110
Barbados	40	46,000	40	2.0	13,543	27,086
Brasil	25	52,000	33	2.7	6,828	18,436
Chile	45	14,748	15	0.2	8,895	1,779
Costa Rica	25	15,746	30	1.3	5,889	7,656
El Salvador	30	22,857	25	0.7	4,083	2,933
Guatemala	25	30,000	25	3.5	3,500	12,230
Honduras	25	38,460	25	1.9	2,478	4,709
Jamaica	25	2,838	33.3	0.8	3,490	2,751
México	35	25,492	34	0.1	7,637	764
Nicaragua	30	18,083	30	6.9	2,140	14,767
Panamá	30	200,000	15	0.5	5,244	2,622
Perú	30	50,036	30	1.4	4,516	6,483
Repca. Dominicana	25	16,176	25	1.9	4,460	8,475
Trinidad y Tobago	35	11,200	35	0.6	7,467	4,344
Uruguay	-	-	30	-	8,544	-
Promedio	30.5	44,242	28.6	1.7	6,291	8,943
Desvío Standard	5.9	49,734	6.6	1.7	3,161	7,515
Alemania	53.0	69,226	40	0.3	25,465	7,536
Australia	47	32,404	36	0.2	21,813	4,008
Austria	50	55,564	34	0.2	25,523	4,916
Bélgica	55	65,547	39	0.2	23,820	5,758
Canadá <sup>3</sup>	49.3	42,741	38	0.2	20,249	4,333
Dinamarca	40	..	34	0.3	32,178	9,781
Finlandia	38	56,450	28	0.4	23,315	9,053
Francia	32	166,667	33	0.2	23,788	5,294
Grecia	45	55,923	35	0.5	11,427	5,493
Israel	50	57,387	36	0.8	8,192	6,209
Italia	46	181,801	37	0.3	19,912	4,978
Corea del Sur	40	56,529	28	0.9	9,287	8,358
Nueva Zelanda	33	19,922	33	0.4	17,271	6,909
Noruega	28	6,835	28	0.2	34,823	8,482
España	48	69,216	35	0.6	13,530	7,513
Turquía	45	59,259	25	0.9	7,914	7,123
Reino Unido	40	44,580	31	0.3	21,740	7,367
Estados Unidos <sup>4</sup>	46.1	278,450	41.9	0.2	29,297	5,859
Promedio	43.7	77,559	34.0	0.4	20,530	6,609
Desvío Standard	7.2	66,284	4.5	0.2	7,743	1,618

<sup>1</sup> América Latina y Caribe en PPP, resto de países en US\$ corrientes.<sup>2</sup> Surge de la multiplicación de la columna de Ing. per Cápita por la columna de Renta Mínima Imponible en Ingresos per Cápita<sup>3</sup> Canadá incluye una tasa federal y el promedio de la provincial.<sup>4</sup> Estados Unidos incluye tasa federal del Imppto. Personal 40% más 6.1% del promedio simple del impuesto estadual y en el corporativo la tasa del federal es 35% y del promedio simple estadual es 6.9%

Fuente: PriceWaterhouseCoopers Income Tax Worldwide Summaries y Tanzi, Vito y Howell H. Zee (1998).

en ocasiones lograr una identificación más objetiva de paraísos fiscales o regímenes preferenciales dañinos es la evidente desproporción entre los flujos de inversión que reciben y el nivel de actividad económica real que en ellos se desarrolla<sup>5</sup>.

En términos de recomendaciones de política, el reporte sugiere en términos generales dos tipos de acciones en contra de dichas prácticas desleales: acciones de tipo unilateral enfocadas a dotar a las legislaciones domésticas de reglas que permitan desincentivar la movilización de bases gravables con fines elusivos<sup>6</sup>, y acciones de corte bilateral que permitan intensificar y hacer más eficiente el intercambio de información entre países y que limiten en forma estratégica los beneficios concedidos a través de los tratados para evitar la doble tributación. Como muestra de la importancia de adoptar un enfoque multilateral en la búsqueda de soluciones conjuntas, el reporte anuncia la creación de un foro internacional que permita evaluar en forma permanente los avances logrados por las diferentes jurisdicciones fiscales en el combate a las prácticas dañinas de competencia tributaria.

En forma sintética podríamos resumir las positivas características de tan importante contribución:

1. Siguiendo la tradición, estos trabajos sobre tributación internacional siguen el patrón de la institución de estudiar temas relevantes (no sólo para la OCDE) con alto nivel profesional tal como lo fueron en el pasado por ejemplo, el modelo de tratados de doble tributación o los precios de transferencia y proveer guías de acción en la materia.
2. La organización ha realizado los trabajos sobre competencia desleal bajo un grupo de principios de validez universal muy apropiados a la época y relevantes a la cooperación internacional como son la transparencia, la no discriminación e el intercambio efectivo de información.
3. El estudio sigue una metodología participativa, donde se identifican en primera instancia regímenes potenciales dañinos de la propia organización (47) y luego 35 otras jurisdicciones, un sistema similar al que aplica la Comunidad Europea acompañadas de cursos de acción.

Aunque innovador y oportuno, el reporte de la OCDE no ha estado exento de críticas. Las más extremas incluyen desde teorías conspirativas, considerando que este es un esfuerzo de un grupo de países con presiones tributarias altas para inducir a otras jurisdicciones en ese camino, o razones de supervivencia burocrática de organizaciones multilaterales.

En nuestro criterio, creemos importante destacar:

1. El punto de concentración de estos trabajos en el tratamiento tributario preferencial solamente a los regímenes que afectan el ahorro, es incompleto. De una manera muy elocuente, Avi-Yonah<sup>7</sup> señala puntualmente algunas de las principales limitaciones del documento que impiden la adopción de una solución global e integral al fenómeno de la competencia tributaria desleal. De acuerdo con Avi-Yonah, los alcances de las recomendaciones de la OCDE quedan en principio altamente restringidas por la omisión deliberada de considerar dentro del reporte al ingreso proveniente de actividades reales, tomando en cuenta la relativa facilidad con la que en la actualidad es posible trasladar la producción de bienes hacia paraísos fiscales<sup>8</sup>.

<sup>5</sup> El reporte de la OCDE reconoce que la inversión extranjera directa de los países del G-7 en jurisdicciones ubicadas en el Caribe e islas del pacífico del sur se quintuplicaron durante el período 1985-1994 hasta llegar a más de 200 mil millones de dólares. Existe además evidencia de que aproximadamente una cuarta parte de los activos de las empresas multinacionales de EUA están ubicados en jurisdicciones que registran tan sólo 1.2% de la población total y el 3% del PIB mundial.

<sup>6</sup> Por ejemplo, el reporte recomienda a los gobiernos la adopción de reglas anti-diferimiento de impuesto tanto para empresas como para individuos con inversiones en paraísos fiscales.

<sup>7</sup> *Globalización, Competencia Tributaria y la Crisis Fiscal del Estado Benefactor*, Avi-Yonah R.S., 113 *Harvard Law Review* 1573, No. 7, Mayo de 2000, pp.1657-1666.

<sup>8</sup> Esta omisión afecta especialmente a los fiscos de las economías más avanzadas, debido a que 2/3 partes del intercambio global de mercancías es llevada a cabo por empresas multinacionales que en un 85% residen en países industrializados de la OCDE.

administrativos resulta, desde el punto de vista de sus ingresos, más atractivo cooperar en un arreglo institucional que favorezca adicionalmente esquemas de retención en la fuente generalizados. En este sentido, cabe advertir que la cooperación multilateral impulsada por organismos internacionales tendrá mayores probabilidades de éxito, en la medida en que provea esquemas de política y administración tributaria que reconozcan desequilibrios en la estructura de flujos de capital entre regiones<sup>11</sup> tal como se presenta en la tabla 6.

Tabla 6

**ESTRUCTURA DE FLUJOS  
(Dólares EUA)**

	<b>Pob. (1998)</b>	<b>PBI (1998)</b>	<b>Capital en Bolsas (1998)</b>	<b>Inv. Extranjera Directa Neta y Portafolio Neto (1999)</b>
<b>Total</b>	<b>5.9 Bn</b>	<b>35.12 Tr</b>	<b>25.48 Tr</b>	<b>0.34 Tr</b>
<b>Países Desarrollados</b>	<b>15.2%</b>	<b>65.1%</b>	<b>92.8%</b>	<b>48.5%</b>
<b>Países en Desarrollo</b>	<b>84.8%</b>	<b>34.9%</b>	<b>7.2%</b>	<b>51.5%</b>
<b>América Latina y el Caribe</b>	<b>7.9%</b>	<b>6.4%</b>	<b>1.5%</b>	<b>22.3%</b>

Fuentes: FMI, BM, BIS, FIBV, EIU

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En definitiva, la OCDE en materia de cooperación tributaria internacional ha sentado las bases del espíritu que la debe gobernar pero se deben corregir falencias en el proceso seguido para lograrla.

### **Algunos factores que inciden en la necesidad de la coordinación tributaria internacional**

Es importante destacar una serie de factores que influyen en la necesidad de desarrollar un esfuerzo técnico que impulse la coordinación para mejorar la tributación internacional de la región que a la vez salvaguarde el derecho de las naciones a establecer soberanamente su nivel de tributación en el marco de una leal competencia tributaria entre naciones. Este esfuerzo, tanto a nivel de política como de administración, requerirá la coordinación entre nuestros países y el resto del mundo en lo que refiere al tratamiento tributario, ahorro y la inversión externa. Sin embargo, buena parte del esfuerzo debe incluir la coordinación intraregional de los niveles e instrumentos de incentivos que aseguren una competencia leal y permita un poder de negociación mayor con otros agentes externos a la región tanto públicos como privados.

En primer lugar, está el aspecto tecnológico. En las próximas décadas la inserción internacional de un país estará afectada no sólo por la forma y condiciones de los mercados de sus productos, que ya son

<sup>11</sup> Como muestra de estas desproporciones cabe apuntar que los países de América Latina y el Caribe registran con únicamente el 1.5% del valor total de capitalización de mercados.

electrónicos e infraestructura de telecomunicaciones, las cifras del cuadro 14 nos permite percibir la posición relativa de América Latina y el Caribe en este rubro.

Cuadro 14

### Estadísticas sobre Medios de Comunicación Electrónicos

	Radios (cada 1,000 habitantes)	Televisión Aparatos de (cada 1,000 habitantes)	Suscriptores de Cable (cada 1,000 habitantes)	Teléfonos Móviles (cada 1,000 habitantes)	Faxes (cada 1,000 Habitantes)	Computadoras Personales (cada 1,000 habitantes)	Sitios de Internet (cada 10,000 habitantes)
	1996	1997	1997	1997	1996	1997	Julio 1998
Sudeste Asia & Pacífico	184	229	39	11	0.4	7	1
América Latina & Carib.	398	264	31	26	2	33	8
Medio Oriente & N. Africa	268	140	9	6	2	15	0.2
Sud Asia	99	69	16	1	0.2	2	0.1
OECD	676	647	165	189	50	264	375

Fuente: Science and Technology Review (MIT) y World Bank, World Development Indicators (varios tomos).

Considerando los efectos de reducción de base tributaria que afectará en el futuro a la provisión de servicios intangibles vía electrónica afectará un sector creciente y dinámico de los ingresos impositivos por ventas y su diferente tratamiento influirá en la determinación de la base imponible de gravámenes al consumo y rentas.

Un segundo elemento (positivo) es el constante desarrollo e integración de los mercados financieros latinoamericanos y caribeños al mercado internacional, pero que no se ha visto equiparado con un esfuerzo de análisis para la posible cooperación en materia tributaria.

Los libres mercados financieros y cambiarios permiten recibir pero también exportar activos sin la respectiva capacidad de las administraciones tributarias para control. Para lo cual es importante la coordinación internacional en lo que sería la potestad de fiscalización de cada país. En efecto, esta preocupación afecta no solamente el tratamiento de los diferentes instrumentos financieros como medio de planificación tributaria que permite erosionar el impuesto a la renta de empresas sino también, lo referente al tratamiento fiscal de los rendimientos del ahorro que afecta a la renta individual y a los movimientos abruptos de fondos de corto plazo que tanto afectaron a la región en las crisis de los últimos años.

Adicionalmente, puede apreciarse que el número de empresas que comercializan valores en las bolsas más importantes de la región tiende a disminuir tal como se observa en el cuadro 15. En efecto, si bien las privatizaciones y la apertura aumentaron significativamente el valor de capitalización y el valor negociado (ver cuadro 15), las tendencias a la concentración tanto empresarial iniciada desde principios de los noventa y de las bolsas a finales de la década han afectado esta forma de canalización del ahorro en la región. Más aún, parte de los cambios en la forma de valuación de una empresa, un ejemplo las empresas vinculadas a la Internet, han llevado a que parte del valor internacional de una empresa sea capturado solamente en la bolsa en que cotiza. Por ejemplo, el valor de un descubrimiento médico o un nuevo tipo de servicio se capturan en donde la empresa cotiza y tal como se indicó antes este país tiene la ventaja de poder capturar una parte mayor de la base imponible cuyo valor se genera internacionalmente. Es claro, que este proceso está intrínsecamente ligado en una parte significativa al avance tecnológico.

**Algunos factores que inciden en el esfuerzo por la coordinación tributaria internacional**

Las naciones han desarrollado su política tributaria, y como apéndice la coordinación con otros países, de acuerdo a sus objetivos nacionales desde que existe historia escrita. Es probable que las condiciones de integración comercial y financiera alcanzadas en las últimas décadas han puesto y probablemente aumentarán el rol de la tributación internacional. Un ejemplo, la rebaja tributaria para la captación del ahorro internacional efectuada por los EE.UU. durante los primeros años de la década del ochenta para no presionar aún más al alza de los costos financieros del sector privado originados en el financiamiento de sus crecientes déficit fiscales (Avi-Yonah, 2000). Otro ejemplo más reciente, la preocupación de la Comunidad Europea por retener y proteger la base tributaria del impuesto personal para financiar su alto nivel de gasto social expresada en los ya comentados esfuerzos, por disminuir la competencia tributaria dañina, incluyendo amenazas de sanciones a los países supuestamente desleales, en instrumentos de ahorro (OECD 1998 y 2000).

Uno de los elementos importantes que determinan la relación tributaria internacional está dada por el nivel de intercambio de bienes y servicios. Tal como establecimos anteriormente, los noventa se han caracterizado por el impulso a los acuerdos comerciales regionales. No corresponde a este trabajo si estos convenios generan o no desviación de comercio o los beneficios y desventajas que ellos pudieren generar. De todas formas, en el cuadro 17 se observa un importante crecimiento del comercio intrabloque en los últimos treinta años que se ha acelerado en esta década de los acuerdos. Aunque existan diferencias relativas en las cifras de intercambio o con el uso de otros indicadores es claro que el crecimiento del comercio intrabloque no ha sido acompañado de un esfuerzo de coordinación tributaria. El anexo 5 resume las convenciones bilaterales sobre Imposición a la Renta y el Capital y/o Acuerdo para el Intercambio de Información; en este cuadro se puede fácilmente observar la falta de esfuerzo de la región en la materia. Los acuerdos bilaterales extrarregionales son casi seis veces más que los intrarregionales para los países seleccionados.

Cuadro 17

**Exportaciones de Bienes dentro del Bloque**

	(US\$ 000 millones)				Crecimiento %
	1970	1980	1990	1998	1998 / 1970
Coop. Econo. Asia Pacífico	58	358	902	1,737	2,915
Comunidad Europea	76	457	981	1,077	1,308
NAFTA	22	102	226	522	2,263
ALADI	1.3	11.0	12.3	42.9	3,300
MERCOSUR	0.5	3.4	4.1	20.4	4,413
Grupo Andino	0.1	1.2	1.3	5.1	5,132
Mercado Común Centroamericano	0.3	1.2	0.7	2.1	617
CARICOM	0.1	0.6	0.4	1.0	1,852

Fuente: División Estadística del BID

Por último, es necesario reconocer que todo esfuerzo, incluido el actual de OECD por controlar paraísos fiscales y competencia desleal, deben contar con el apoyo de los EE.UU. que presenta estructuras de servicios públicos, en especial en salud y educación, así como en seguridad social significativamente inferiores a los europeos y por lo tanto menores niveles de presión fiscal. Su participación activa en el esfuerzo por cualquier tipo de coordinación tributaria a nivel regional adquiere aún mayor relevancia. El cuadro 18 nos provee algunas claves de la estructura de su comercio exterior. En el se observa la

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**IVA en América Latina y el Caribe (Cont.)**

País	Ciertas excepciones	Exportaciones	General %	Especial %
México	Venta de propiedad inmueble, libros, matrícula escolares, intereses ganados en transacciones con instituciones financieras; servicios médicos; ventas de acciones y valores.	Gravados a tasa 0	15	10
Nicaragua	Importaciones de productos alimenticios, farmacéuticos, productos y equipos agrícolas; impresos, agua y energía eléctrica; servicio médico, educación, servicios de transporte y financiero; seguro	Gravados a tasa 0	15	5/6
Panamá	Productos alimenticios, combustible, artículos escolares, productos farmacéuticos, servicios	Gravados a tasa 0	5	-
Paraguay	Importaciones; transferencia de valores y otros instrumentos financieros; combustibles; propiedad inmobiliaria; servicios financieros; cierto tipo de intereses	Exentos	10	S/D
Perú	Ciertos productos básicos, productos alimenticios, libros, lanas	Gravados a tasa 0	18	S/D
Trinidad & Tobago	Ciertos productos alimenticios y servicios financieros, médicos y dental, alquileres de propiedades	Gravados a tasa 0	15	0
Uruguay	Ciertos productos alimenticios, renta y venta de propiedad inmueble, servicios financiero, venta de moneda extranjera, combustible	Gravados a tasa 0	23	14
Venezuela	Ciertos productos agrícolas y alimenticios, educación, combustible, servicios de salud	Gravados a tasa 0	15.5	-

Fuente: Miguel Valdés y Carlos Casanovas, Ernst & Young LLP, New York y Amparo Mercader PriceWaterhouseCoopers.

<b>Incentivos Tributarios a la Inversión vigentes – Países Seleccionados. Cont.</b>	
México	A. Maquiladoras: aproximadamente tres mil empresas y un millón de trabajadores. Tiene exoneración de aranceles y valor agregado en las importaciones. Los proveedores de las maquilas reciben tratamiento de iva tasa cero en sus ventas. B. Crédito de investigación y desarrollo hasta un 20% de los gastos. C. Beneficio a la agricultura, industria pesquera y forestal, y editoriales, reducción de hasta un 50% del impuesto a la renta. D. Regímenes simplificado desde 1991 basado en el flujo de cajaafecta al 15% del producto bruto mexicano. E. Compañías aseguradoras. Diferimiento indefinido en el tiempo de las ganancias por inflación a la vez que permite deducción inmediata de las pérdidas por inflación. F. Consolidación, similar a las reglas de la OCDE
Perú	A. La ley de Amazonía. Excenciones de valor agregado, impuesto a la renta, impuesto selectivo y aranceles para empresas situadas en la región amazonica. B. CETICO, excención de valor agregado, impuesto a la renta, impuesto selectivo y aranceles en determinadas zonas fronterizas como ser Ilo, Tacna y Paita entre otras operan como zonas francas, industriales y comerciales. C. Contratos de estabilidad, requieren ciertos criterios como ser monto de la inversión, montos de salarios pagos y aseguran por 10 años que las bases y las tasas de cálculo de los impuestos no pueden ser modificadas. D. Incentivos a la actividad minera, contrato de estabilidad minera iguales a los anteriores pero por 12 años. E. Contratos mineros en general incluye depreciaciones aceleradas, diferimiento indefinido de la repatriación de dividendo. Exención de los impuestos a los activos, entre otros. Incluye además beneficio especiales para la exploración de hidrocarburos y gas natural. Existen además incentivos tributarios especiales para para la exploración y explotación de hidrocarburos y gas natural.
Uruguay	A. Deducción de reinversiones (40% para maquinaria y equipos, 20% para inmuebles), depreciación acelerada para determinados bienes (computadoras, maquinaria agrícola, etc.), deducción extra del 50% de los gastos en capacitación de personal. B. Ley de Promoción Industrial (Leyes 14178 y 16906) exoneración de renta por siete años y de aranceles selectivos e iva en las importaciones de equipo. Aproximadamente 2500 empresas en 25 años recibieron este beneficio. C. Leyes Forestales (Leyes 13723 y 15939). Proyectos forestales son exonerados de todo impuesto incluyendo seguridad social e impuestos a la propiedad inmueble. D. Admisión temporaria y Duty draw-back. Dentro de los límites del acuerdo del Mercosur la admisión temporaria será eliminada en el año 2001 para exportaciones al Mercosur pero no para terceros países. E. Zonas Francas. Uruguay tiene Zona Franca desde 1913, actualmente existen ocho zonas francas de servicios en funcionamiento, especialmente financieros, profesionales y comerciales, con las ventajas de exoneración de todos los impuestos internos excepto la seguridad social, a los efectos del Mercosur se los considera como extraterritoriales

Fuente: Resumen de Byrne, Peter y Reuven Avi Yonah, Incentivos Tributarios a la Inversión en América Latina (2001) primer borrador.



## **Anexo 4**

### **Definiciones de la OCDE**

#### **Competencia Tributaria Desleal**

##### **Factores para identificar un Paraíso Fiscal**

- Exención/Tasa exclusivamente nominal de impuesto.
- No existe un efectivo intercambio de información con otras jurisdicciones fiscales.
- Nula transparencia en la aplicación del impuesto.
- Ausencia de ventajas económicas, o de un marco legal o comercial que permitan atraer la inversión, si no fuera por el marco tributario.

##### **Factores para determinar un Régimen Tributario Preferencial Dañino**

- Exención/Bajas tasas efectivas de impuesto.
- Regímenes especiales diferenciados ("ring fencing").
- No existe un efectivo intercambio de información con otros fiscos.
- Nula transparencia en la aplicación del impuesto.

##### **Otras características:**

- Nula adherencia a principios internacionales sobre Precios de Transferencia
- Bases y tasas de imposición sujetas a negociación ("soak-up" taxes).

#### **Prácticas Tributarias**

##### **Competencia Tributaria Desleal:**

- Implementación de reglas anti-diferimiento de impuestos.
- Restringir esquemas de exención a fuentes de ingreso ubicadas en el extranjero.
- Aplicación de reglas que permitan obtener información sobre transacciones internacionales.
- Estricta aplicación de reglas internacionales sobre precios de transferencia.
- Acceso a información bancaria para efectos fiscales.
- Introducción de disposiciones que permitan limitar los beneficios negociados en los tratados internacionales para evitar la doble imposición (TIDI)
- Coordinación internacional de operaciones de auditoría

**GLOBALIZATION AND TAX COMPETITION:  
IMPLICATIONS FOR DEVELOPING COUNTRIES**

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The current age of globalization can be distinguished from the previous one (from 1870 to 1914) by the much higher mobility of capital than labor (in the previous age, before immigration restrictions, labor was at least as mobile as capital). This increased mobility has been the result of technological changes (the ability to move funds electronically), and the relaxation of exchange controls. The mobility of capital has led to tax competition, in which sovereign countries lower their tax rates on income earned by foreigners within their borders in order to attract both portfolio and direct investment. Tax competition, in turn, threatens to undermine the individual and corporate income taxes, which remain major sources of revenue (in terms of percentage of total revenue collected) for all modern states.

The response of both developed and developing countries to these developments has been first, to shift the tax burden from (mobile) capital to (less mobile) labor, and second, when further increased taxation of labor becomes politically and economically difficult, to cut government services. Thus, globalization and tax competition lead to a fiscal crisis for countries that wish to continue to provide those government services to their citizens, at the same time that demographic factors and the increased income inequality, job insecurity and income volatility that result from globalization render such services more necessary.

This paper argues that if government service programs are to be maintained in the face of globalization, it is necessary to cut the intermediate link by limiting tax competition. However, from both practical and normative considerations, any limits set to tax competition should be congruent with maintaining the ability of democratic states to determine the desirable size of their government.

### **International Tax Competition and the Taxation of Capital**

From its beginnings late in the 19<sup>th</sup> century, the modern state has been financed primarily by progressive income taxation. The income tax differs from other forms of taxation (such as consumption or social security taxes) in that in theory it includes income from capital in the tax base, even if it is saved and not consumed. Because the rich save more than the poor, a tax that includes income from capital in its base is more progressive (taxes the rich more heavily) than a tax that excludes income from capital (e.g., a consumption tax or a payroll tax). However, the ability to tax saved income from capital (i.e., income not vulnerable to consumption taxes) is impaired if the capital can be shifted overseas to jurisdictions where it escapes taxation.

Two recent developments have dramatically augmented the ability of both individuals and corporations to earn income overseas free of income taxation: The effective end of withholding taxation by developed countries, and the rise of production tax havens in developing countries. Since the U.S. abolished its withholding tax on interest paid to foreigners in 1984, no major capital importing country has been able to impose such a tax for fear of driving mobile capital elsewhere (or increasing the cost of capital for domestic borrowers, including the government itself). The result is that individuals can generally earn investment income free of host country taxation in any of the world's major economies. Moreover, even developed countries find it exceedingly difficult to effectively collect the tax on the foreign income of their individual residents in the absence of withholding taxes imposed by host countries, because the investments can be made through tax havens with strong bank secrecy laws.

regressive than the income tax. Over the same period, the personal and corporate income taxes have not grown as a percentage of total revenues (the personal income tax accounted for 26% of total revenues in 1965 and 27% in 1995, while the figures for the corporate income tax are 9% and 8% respectively). The total tax revenue as a percentage of GDP in developed countries went up sharply during the same period (from an average of 28% in 1965 to almost 40% in 1994), and this increase is largely accounted for by the rise of consumption and payroll taxes. Moreover, there is evidence that as the degree of openness of an economy in OECD member countries increases, taxes on capital tend to go down while taxes on labor go up (the income tax is imposed on both capital and labor, so that its stability may mask this trend).

The same trends can be observed in developing countries as well. In non-OECD member countries (outside the Middle East) total government revenues as a share of GDP rose from an average of 18.8% in 1975-80 to 20.1% in 1986-92. This growth was financed primarily by the growth of revenues from the VAT in the same period (from 25.5% of total revenues to 31.8%). At the same time, revenues from both the individual and the corporate income tax were flat or declined.

### **Tax Competition and the Developing Countries**

The drawbacks of tax competition for developed countries are relatively clear, because such countries have an elaborate social insurance safety net that requires a high level of government expenditure and that is threatened by tax competition. But how does tax competition affect developing countries?

First, it should be pointed out that developing countries need the revenues at least as much as developed countries do, if not more. A common misperception is that only OECD member countries are confronted by a fiscal crisis as a result of the increasing numbers of elderly people in the population. In fact, the increase in dependency ratios (the ratio of the elderly to the working population) is expected to take place in other geographic areas as well, as fertility rates go down and health care improves. Outside the OECD and the transition economies, the dependency ratio starts in the single digits in the 1990s, but rises to just below 30% by 2100. Moreover, while outside the OECD and the transition economies direct spending on social insurance is much lower, other forms of government spending (e.g., government employment) effectively fulfill a social insurance role. In Latin America, for example, direct government spending on social insurance is much lower than indirect spending through government employment and procurement programs.

Moreover, it seems strange to argue that developing countries need tax revenues less than developed countries because they have less developed social insurance programs. If one accepts the normative case for social insurance, it applies to developing countries with even greater force because of widespread poverty, which means that losing a job can have much direr consequences. But the need for revenues in developing countries goes far beyond social insurance. In some developing countries revenues are needed to insure the very survival of organized government, as the Russian experience demonstrates. In other, more stable developing countries revenues are needed primarily to provide for adequate education (investment in human capital), which many regard as the key to promoting development. For example, the UN has estimated that for only \$30-\$40 billion, all people in the world

would drive the investors to other jurisdictions that do not tax them. If there was a way to coordinate actions among the relevant jurisdictions, they all could gain added revenues without running the risk of losing the investment.

A good illustration of how this dynamic works is the history of German taxation of interest income. In 1988, Germany introduced a 10% withholding tax on interest paid to bank depositors, but had to abolish it within a few months because of the magnitude of capital flight to Luxembourg. In 1991, the German Federal Constitutional Court held that withholding taxes on wages but not on interest violated the constitutional right to equality. The government thereupon reintroduced the withholding tax on interest, but made it inapplicable to non-residents. Non-residents may, however, be Germans investing through Luxembourg bank accounts. To cope with this problem, the Germans have led an EU effort to introduce a 20% withholding tax on all interest payments to EU residents. However, both Luxembourg and the United Kingdom have so far blocked the adoption of this plan, arguing that it will lead to a flight of investors to Switzerland or the United States.

Thus, the key to finding a solution to the tax competition problem is to attack it on a broad multilateral basis, through an organization such as the OECD. Under current conditions, the OECD is the natural choice for leading such coordinated actions against tax competition, for three reasons. First, for individual investors to earn decent returns on their capital without incurring excessive risks, they need to invest in an OECD member country. Tax havens do not offer adequate investment opportunities, and developing countries are generally considered too risky for portfolio investment (other than through mutual funds, which do not offer tax avoidance opportunities). Thus, if all OECD members enforced taxation of portfolio investment, it could be subject to tax without requiring cooperation from the tax havens.

Second, about 85% of the world's multinationals are headquartered in OECD member countries. This is likely to continue to be the case for a while, because OECD members offer stable corporate and securities law protection to investors that is lacking in other countries. Thus, if all OECD members agreed on a coordinated basis to tax their multinationals currently on their income from abroad, most of the problem of tax competition from direct investment could be solved.

Third, the OECD has the required expertise (its model tax treaty is the global standard) and has already started on the path of limiting tax competition. In 1998, it adopted a report entitled "Harmful Tax Competition: An Emerging Global Issue." This report is somewhat limited, because it only addresses tax competition for financial activities and services (as opposed to, e.g., Intel's manufacturing plants). It also does not address the taxation of investment income. But it represents an extremely useful first step, and proof that a consensus can be reached on the tax competition issue (Switzerland and Luxembourg abstained, but did not dare veto the adoption of the report by the other 27 members of the OECD).

The OECD makes a useful distinction between tax competition in the form of generally applicable lower tax rates, and tax regimes designed to attract foreign investors. This distinction is both normatively and pragmatically sound: Restricting tax competition should not and cannot mean that voters in democratic countries lose their right to determine the size of the public sector through general tax increases or reductions. But it does mean that countries should not provide windfalls for foreign investors at the expense of the ability of other countries to provide those public services their residents desire.

**REVIEW AND COMPARISON OF PRICING REGULATIONS  
LATIN AMERICA, THE UNITED STATES AND OECD GUIDELINES**

By  
**Luis Coronado**

## I. OECD Transfer Pricing Guidelines

### A. Introduction

The Organisation for Economic Cooperation and Development (OECD) is an international organization whose 30 members include most industrialized countries.<sup>1</sup> The OECD is organized in committees of member country representatives; the OECD's main tax policy body is the Committee on Fiscal Affairs (CFA) and is governed by a Council of member representatives. One of the objectives of the OECD has been to strive to build an international consensus on principles of international taxation.

As part of its efforts to minimize conflicts among taxing jurisdictions, the OECD has published several reports dealing with transfer pricing issues. The first report, *Transfer Pricing and Multinational Enterprises*, was issued in 1979. This was followed by three additional reports that tackled specific topics within the context of transfer pricing: *Transfer Pricing for Multinational Enterprises -- Three Taxation Issues* (1984), *Thin Capitalization* (1987) and *Tax Aspects of Transfer Pricing within Multinational Enterprises: The United States' Proposed Regulations* (1993). In 1995, the OECD revised the 1979 report, replacing it with *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (hereinafter OECD Guidelines). The 1995 document, which was updated in 1996, 1997, 1998 and 1999, expand and clarify many of the concepts enunciated in the 1979 report.

Transfer prices are the prices at which an enterprise transfers tangible or intangible property, provides services or financing to related enterprises. For tax purposes, the existence of significant economic relations between the parties involved in a transaction is not irrelevant. In the case of transactions between related enterprises, external market forces might not directly determine the commercial and financial relations of the related parties -as happens in uncontrolled transactions<sup>2</sup>- and, in addition, the controlled transaction<sup>3</sup> might be designed to reduce or avoid tax by shifting or distorting income, deductions, credits or allowances. The aim of transfer pricing regulations is to reflect the arm's length result a controlled taxpayer must obtain, placing that controlled taxpayer on a tax parity with an uncontrolled taxpayer, thus obtaining a fair allocation of the tax base.

The OECD Guidelines constitute the international standard that OECD member countries have agreed should be used in analyzing transfer pricing issues between multinational enterprises and tax administrations. It is important to note at the outset, however, that the OECD Guidelines are not binding on OECD member countries although member countries are encouraged to follow them when analyzing transfer prices between related parties.<sup>4</sup> The purpose of the transfer pricing recommendations is to ensure that taxpayers clearly reflect income attributable to transactions carried out with associated parties (controlled transactions) as if the transactions were carried out with independent companies under normal market conditions. In other words, to ensure that transactions between related parties adhere to the arm's length principle.

The OECD Guidelines are divided into eight chapters and a glossary. Chapter I, *The Arm's Length Principle*, discusses that principle and its status as the international standard and includes guidelines for its application. Chapter II, *Traditional Transaction Methods*, explains the application of the Comparable Uncontrolled Price method (CUP), the Resale Price method (RPM) and the Cost Plus method (CP). Chapter III, *Other Methods*, describes the two methods that may be used when the traditional transactional methods cannot be used, *i.e.*, the Profit Split Method (PSM) and the Transactional Net Margin Method (TNMM). Chapter IV, *Administrative Approaches to Avoiding and Resolving Transfer Pricing Disputes*,

<sup>1</sup> The OECD member countries are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Korea, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

<sup>2</sup> Uncontrolled transactions are transactions between enterprises that are independent with respect to each other.

<sup>3</sup> Controlled transactions are transactions between enterprises that are associated enterprises with respect to each other.

<sup>4</sup> The OECD also has a program that encourages non-member countries to follow the Guidelines.

“unadjusted industry averages” to adjust the result of controlled transactions because they are considered to be arbitrary.

The OECD Guidelines acknowledge that a range of prices or profits may be appropriate to establish the arm's length nature of a transaction. Although the OECD Guidelines do not include specific rules for establishing the arm's length range, they recognize that substantial deviation in the results of the comparable uncontrolled transactions may imply that some of the comparables may not be as reliable. The OECD Guidelines do not advocate that adjustments be made in the case of an overly broad range by applying statistical methods but propose additional analysis of the comparables and that the taxpayer have the opportunity to demonstrate that the conditions of the transaction fall within the range that is consistent with the arm's length principle. Further, the OECD Guidelines provide that if the price or margin of a controlled transaction falls outside the arm's length range and the taxpayer is unable to provide evidence of an arm's length result, tax adjustments should be made to the point that best reflects the facts and circumstances of the particular controlled transaction.

The OECD Guidelines recognize that business strategies may be reflected in transfer prices. Several considerations must be made: (1) the conduct of the parties should be consistent with the professed business strategy; (2) the nature of the relationship between the parties to the controlled transaction should be consistent with the taxpayer bearing the cost of the business strategy; and (3) the business strategy must be credible to produce a return that justifies its cost within a reasonable period of time.

Although the OECD Guidelines provide that, “ideally,” the arm's length principle should be applied on a transaction-by-transaction basis, they acknowledge that in certain circumstances aggregation of transactions would be more appropriate (*e.g.*, long-term contracts for the supply of commodities or services, rights to use intangible property, etc.).

The OECD Guidelines do not explicitly mention the Best Method Rule (as used in the U.S. transfer pricing regulations or in Argentine legislation) although they establish the same principle when indicating the considerations a taxpayer must take into account to select the method that better reflects the arm's length nature of the controlled transaction (*i.e.*, the facts and circumstances of the transaction, the evidence available and the reliability of the different methods).

### **C. Traditional Transactional Methods**

The chapter of the OECD Guidelines dealing with transactional methods provides a detailed description of the three traditional methods: the CUP, the RP and the CP methods. The OECD Guidelines specify how to apply the methods and the special circumstances under which the methods would likely be the best method. Significantly, the OECD Guidelines express a preference for the traditional transactional methods and state that the cases when there may be practical problems in the application of the methods are exceptional.

#### ***1. CUP Method***

The OECD Guidelines apply the CUP to transfers of tangible and intangible property and to the provision of services. The CUP compares the price charged in a controlled transaction to the price charged in a comparable uncontrolled transaction under similar circumstances. The CUP requires a high degree of comparability of products and functions and is generally the most reliable measure of arm's length results if transactions are identical or if only minor quantifiable differences exist. The CUP is therefore usually applicable if the same or very similar products sold to related parties are also sold to unrelated parties under similar circumstances.

It is often difficult to locate comparable uncontrolled transactions since minor differences in the transferred property in the controlled and uncontrolled transactions may have a material effect on price



APA (*e.g.*, to resolve transfer pricing issues expeditiously, to use the resources of the taxpayer and the tax administration more efficiently and to eliminate double taxation). The annex also describes the process of obtaining an APA: whether it is possible for a taxpayer to apply for an APA; the request and finalization of an APA; and monitoring taxpayer compliance with the terms and conditions in the APA.

Of the countries considered in this report, Brazil, Mexico and the United States make provisions for APAs, but neither Argentina nor Venezuela authorize the use of APAs.

## II. Argentina

### A. Legislation and Regulations

Since the transfer pricing law was introduced in December 1998, the tax authorities have only issued two sets of guidance on how the law should be applied. A resolution issued in October 1999 requires taxpayers to file a new form, Form 662, outlining their intercompany transactions and to maintain documentation to support their transfer prices.<sup>7</sup> The second resolution issued in November 2000<sup>8</sup>.

According to recent amendments, taxpayers engaged in transactions with related parties must file an annual tax return (from the tax year ending December 31, 2000 and onwards, bi-annual tax returns will be required).

#### 1. Definition of Related Parties

The regulations impose an expansive definition of related parties. The transfer pricing rules are triggered if any of the following circumstances exist:

- One entity, directly or indirectly, controls another party with which it engages in transactions;
- The entities that engage in transactions are under the common control of a third entity (*i.e.*, brother-sister companies);
- A person (*i.e.*, an individual or legal entity) owns all or a controlling part of the capital of another person;
- A person fully owns or has the majority interest in another person;
- An individual or legal entity has a sufficient number of votes to control the corporate will or to prevail in shareholders meetings or over another taxpayer's partners. The presence of common directors, common executive officials, and common managers indicates related party status;
- A person has the authority to act for another person, such as through a trust or as the exclusive agent or distributor for the purchase or sale of goods, assets, services or rights;
- A person licenses proprietary or technological information even if the licensor and licensee are unrelated;
- An entity substantially participates in the formation of another party's business or in the supply of raw materials to, or the trading or marketing of another business.

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<sup>7</sup> General Resolution 702 dated October 15, 1999.

<sup>8</sup> Decree 1037/2000 issued by the Executive branch on November 9, 2000, and published in the Official Gazette on November 14, 2000.

Two or more individuals or legal entities can be viewed as related in a number of circumstances. For example, a common control relationship between parties may result in related party status. There are three aspects to a common control relationship: (1) where an individual or entity has the whole or a majority interest in the capital of two or more other entities; (2) where a person has control over two or more businesses; or (3) where the person has a significant simultaneous influence over two or more entities.

Parties that share a participation with another party are treated as related even if the relationship is through a condominium, joint venture, group or assembly with no legal existence if a party exerts a significant influence on the price-setting process. Contract terms can indicate related party status when the parties undertake preferential contractual clauses, such as for discounts, funding, delivery or other terms.

A person that is a single supplier, single customer or single vendor in relation to another party is not independent of that party under the Argentine rules. A party that funds another through loans or guarantees is not independent of that other party. A taxpayer that assumes another party's obligations, losses or expenses is not independent of that party nor is an entity independent of a second entity if the second entity gives instructions to directors, executives or managers of the first entity or if the first entity acts in the best interest of the second entity. Shifting management or stewardship to an individual or legal entity that has a minority interest may destroy independence.

## ***2. Low-Tax Jurisdictions***

As mentioned above, the Argentine transfer pricing rules capture transactions with entities located in tax havens by presuming that such transactions are related party transactions, regardless of whether the parties actually are related. As originally drafted, the tax haven rules relied on cumbersome and confusing criteria to determine whether a jurisdiction qualified as a low-tax jurisdiction.<sup>9</sup> Amendments issued in November 2000, however should provide some clarity since the tax authorities have issued a list of 84 countries and territories deemed to be tax haven jurisdictions. Any transactions with entities in these jurisdictions will be deemed not to be at arm's length and are subject to the scrutiny of the Argentine tax authorities.

## ***3. Transfer Pricing Methodologies***

While the Argentine legislation is in many respects similar to the U.S. rules, it is clear that the actual Spanish language was taken from articles 64-A and 65 of the Mexican Income Tax Law as well as relevant Miscellaneous Tax Provisions (MTP). The Argentine rules provide for the same methodologies set forth in the Mexican legislation and the OECD Guidelines: CUP, RP, CP, PSM, residual profit split and TNMM which, depending on the level of aggregation of transactions, is equivalent to the CPM frequently used in the Under Law 25,063 applicable during 1999 and 2000 with the exception of taxpayers with year end on December 31, 2000 the residual profit split was a valid method. For tax years ending on December 31, 2000 and onwards the new Law 25,239 eliminated the residual profit split.

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<sup>9</sup> The regulations defined a low-tax jurisdiction as a country, which in addition to a low tax rate, contained one of the following characteristics:

- Secrecy rules for banks, financial institutions and stock exchanges;
- Minimum requirements for accounting methods, organizational activities and business activities of the enterprise;
- Favorable tax rules or other advantages to nonresidents that are not available to residents;
- The tax authorities in the low-tax jurisdiction have the power to grant discretionary tax privileges or other advantages;
- Allowing ownership to be held in trust for the intended party;
- Not maintaining a registry or not requiring registration of corporations or partnerships; or
- No withholding taxes on dividends and interest paid to foreign residents.

differences in the economic environment (“geographic market adjustments”) in addition to the usual adjustments regarding inventories, receivables and payables.

The Argentine transfer pricing rules require the taxpayer to make adjustments in applying comparability, including adjustments for differences in payment terms, the value of interest accrued, differences in the amount or volume traded (including trade discounts or bonuses), and difference as to promotional activities, advertising, and publicity charges, taking the price per unit into account. The tax authorities are particularly concerned with the transfer pricing implications of advertising, publicity and promotional activities for comparative purposes. Therefore, the regulations contain a special accounting procedure: expenses must be apportioned pro rata among the goods or assets, services or rights applied in promoting the company's brands. The pro rata apportionment is to be made on the basis of product sales.

Prices of goods, assets, or services are to be adjusted to take into account the packaging, freight and insurance costs for comparative purposes. Similarly, prices are to be adjusted, depending on costs incurred, to reflect the physical nature of the goods, assets, services or rights that are comparable with each other. Comparable transactions are to be adjusted if the transactions take place on different dates -- the wholesale price index can be used for this purpose.

The regulations also provide guidance for when the currency lacks an exchange rate against the Argentine currency. Currency should be first converted into dollars and then into Argentine currency. In a similar manner, changes in the price of commodities can be demonstrated by reference to commodity exchange listings.

### **5. Documentation Requirements**

Taxpayers are required to maintain documentation analogous to that required by the U.S. contemporaneous documentation provisions. The Argentine requirements are onerous even when compared to the U.S. transfer pricing regulations. The taxpayer must justify both the transfer pricing reflected and the comparison of the methods. Records must be maintained in accordance with the Procedural Tax Act and retained for 10 years (*i.e.*, until expiration of the statute of limitations). While no provision is made for APAs, the information required is similar to what taxpayers in Mexico must submit when requesting an APA.

Law 25.239 clarifies that the transfer pricing documentation rules apply to related party transactions with nonresidents and to import and export transactions if the parties are unable to prove the wholesale price in the country of origin or destination.

Taxpayers must maintain extensive and detailed records, including a wide variety of documents, records and other information, as supporting documentation:

- Detailed description of the taxpayer's functions and activities, assets used, risks assumed and organizational structure;
- Identity of all affiliated parties and documentation outlining the nature of the relationships;
- Information on transactions with related parties;
- Information on activities of each member in a group of companies;
- Financial statements of the taxpayer, financing information and the cost structure of the taxpayer;
- Copies of contracts (*e.g.*, warranties, know-how, cost sharing, R&D, advertising, etc.) between the taxpayer and foreign related parties;

## **C. Application**

### ***1. Taxpayer Obligations***

The Argentine transfer pricing regulations require resident taxpayers engaged in transfer pricing transactions to file an annual income tax return and a supplemental transfer pricing return (Form 662) that reflects all related-party transactions. The return must be filed electronically. The return is due within the first 10 days of the fifth month following the accounting year-end (this coincides with the date a corporate taxpayer must file its annual tax return).

### ***2. Examination, Dispute Resolution, APAs***

Transfer pricing examinations are just beginning in Argentina. Initially, the tax office focused primarily on requesting information to build up a transfer pricing database. Later, while conducting tax audits, tax inspectors would request the transfer pricing study. The tax authorities are now conducting specific transfer pricing audits.

There are no specific dispute resolution procedures other than those stated in the Tax Procedural Law. In this respect, when a transfer pricing audit is carried out and an adjustment made, the taxpayer may opt to pay the tax determined or appeal to the tax court without paying the amount determined by the tax authorities. If the tax court rules in favor of the authorities, the taxpayer must pay the amount due to appeal to the higher courts, and ultimately to the Supreme Court. If the taxpayer prevails in court, the Tax Office also has the right to appeal up to the Supreme Court.

Argentine legislation does not authorize APAs although it is expected that in the near future such agreements will be allowed as the Tax Office and taxpayer become more mature in handling transfer pricing issues.

## **III. Brazil**

### **A. Legislation and Regulations**

As contained in Law 9430/96, Brazil's transfer pricing rules generally are based on the OECD Guidelines but also contain some substantial deviations. The rules themselves are relatively simple and flexible, and allow companies domiciled in Brazil to implement a variety of tax planning strategies. Nevertheless, the rules also are designed to prevent multinational companies from manipulating prices between related parties in a manner that allows for the inappropriate transfer of otherwise reportable income from Brazil to a low or no-tax country; or artificially transferring profits from one related party to another related party with tax losses. To this end, the rules call for the imposition of significant penalties in some instances.

The transfer pricing rules determine the extent to which costs, expenses and charges relating to goods, services and rights stated on import or acquisition documents pertaining to transactions between related parties will be deductible in computing taxable income. Insofar as the transfer pricing rules refer to adjustments to Brazil's income (IRPJ) and social contribution on corporate net profits (CSLL) tax bases, they are strictly tax-related provisions and are not to be construed as a monetary policy, since they do not set any limit on amounts required for the payment of import or export operations.

Brazil's transfer pricing rules target transactions between a Brazilian entity and its overseas related parties involving the import and export of goods, services and rights, without distinguishing between tangible property or services.

taxpayer regarding which transfer pricing methodology to use in a given situation. Taxpayers are free to choose any method or combination of methods from those specified in the regulations and can apply them to tangible property or services, just so long as, whatever method is chosen, the taxpayer provides all of the information necessary to apply the method or methods chosen. All of the approved Brazilian transfer pricing methods involve price comparisons or reconstruction rather than a determination of profit margins.

### ***2.1. Methodologies for Import Transactions***

Taxpayers may use the following transfer pricing methods for import transactions: the CUP method (also known as the comparable independent prices method), the resale price less profit method; or the production cost plus profit method.

***Comparable Uncontrolled Price Method:*** Under the CUP, the importer must determine the average sales prices for similar goods, services or rights in Brazilian or foreign markets under similar conditions and compare those to its own sales prices. In making the comparisons, the prices must be compared with the prices of similar tangible or intangible property or services sold by the same exporter to unrelated parties, purchased by the same importer from unrelated parties or in sales between other, unspecified, unrelated parties. No fixed gross margin is applicable under this method.

***Retail Price Less Profit:*** Under the Retail Price Less Profit Method, the importer determines the average resale prices of goods, services or rights after reducing the resale prices to reflect (1) unconditional discounts, sales taxes or contributions and brokerage costs; and (2) a 20% profit margin calculated based on the resale price. A transaction between unrelated parties is the only standard for comparison under this method.

***Production Cost Plus Profit:*** Under this method, the importer calculates the average cost of goods, services or rights based on what they would be in the country where they were produced. To this figure the importer adds any export taxes imposed by the producing country and a 20% profit margin calculated on the costs. A range of factors may be used to determine costs under this method.

### ***2.2. Methodologies for Export Transactions***

Taxpayers may use the following transfer pricing methods for export transactions: the export sales price method, the wholesale price in the country of destination less profit method, the retail price in the country of destination less profit method or the acquisition or production cost plus taxes and profit method.

***Export Sales Price Method:*** Under the Export Sales Price Method, the exporter determines the average prices of exports it has made to unrelated third parties as a comparison standard or, as an alternative, the average prices of similar goods, services or rights exported by other Brazilian companies during the same time period and under similar conditions.

***Wholesale Price in the Country of Destination Less Profit Method:*** Under the Wholesale Price in the Country of Destination Less Profit Method, the exporter calculates the average wholesale price of similar goods. These averages are determined based on the wholesale price in the country of destination but do not include any taxes imposed by the country of destination. Finally, a 15% profit margin is subtracted from the average wholesale price.

***Retail Price in the Country of Destination Less Profit Method:*** Under the Retail Price in the Country of Destination Less Profit Method, an average retail price for similar goods, based on prices in the country of destination is arrived at. From this price is subtracted any taxes imposed by the country of destination and reflected in the average price and a 30% profit margin calculated on the retail price.

***Acquisition or Production Cost Plus Taxes and Profit Method:*** Under this method, the average cost of producing or acquiring similar exported goods, services or rights is determined. To this figure is added any taxes and contributions levied in Brazil and reflected in the cost and a 15% profit margin, calculated on an amount that includes the costs, contributions and taxes.

certain income that, except for arrangements that cause "two enterprises" to differ in their relations from those of "independent enterprises," otherwise would have accrued to one of the enterprises.

In addition, there is a process under Brazilian law whereby an individual company or group of companies may petition the Brazilian competent authority to prove that a gross profit margin maintained by a particular company is excessive in regard to a specific good, right or service. To date, however, no company has petitioned the Brazilian competent authority to reduce the gross profit margin.

### **C. Application**

#### **1. Taxpayer Obligations**

Taxpayers that carry out business activities with a nonresident related party must adhere to all existing transfer pricing laws and regulations. Most importantly, taxpayers who find themselves subject to the transfer pricing rules must prepare a transfer pricing study by the end of each calendar year for each transaction it maintains with a nonresident related entity. By June 30 of each year, companies must file their tax returns, including all required information. All documents used to support the information contained in the return must be kept for a period of six years.

#### **2. Examinations, Dispute Resolution, APAs**

Within the Federal Revenue Secretariat's International Department is a special transfer pricing team that is responsible for conducting transfer pricing audits and investigations, as well as imposing penalties for failure to adhere to transfer pricing rules. Taxpayers may dispute the findings of the auditors initially through an administrative process. If no relief is granted as a result of that process, the taxpayer may then dispute the findings of the auditors in court.

Brazilian law does not have explicit advance pricing agreement regulations, however taxpayers may request a ruling from the tax authorities allowing them to use a different gross margin to the fixed ones provided in the different transfer pricing methods.

## **IV. Mexico**

### **A. Legislation and Regulations**

Until 1996 (*i.e.*, before the transfer pricing regime was introduced), Article 64-A of the Income Tax Law (ITL) granted powers to the tax authorities to determine the prices of related party transactions when those transactions were not carried out on arm's length terms. The 1997 transfer pricing regime codified the arm's length principle as set forth in the OECD Guidelines and shifted the burden of proof from the tax authorities to the taxpayer to demonstrate that its transactions with related parties were consistent with the arm's length principle.

#### **1. Definition of Related Parties**

The related party definition enacted in 1997 is based on the OECD Guidelines as well as Article 9 of the OECD Model Tax Convention, although the definition is much more encompassing than the OECD definition. Under the Mexican rules, two or more parties are related when one directly or indirectly participates in the management, control or capital of the other, or when a person or group of persons

one transaction or a group of segmented transactions.<sup>12</sup> Otherwise, it could be argued that the method is not consistent with the OECD Guidelines since it compares the consolidated global profits of different multinational enterprises.

Using a profit-based method gives rise to practical problems when determining the tested party in a cross-border analysis, since a literal reading of the rules leads to the conclusion that the tested party must be the Mexican taxpayer. Therefore, in a highly complex transaction involving a full-fledged Mexican manufacturer with intangibles and a simple distributor abroad, testing the "simple" party may not satisfy the Mexican tax authorities.

No specific profit level indicators are required but it appears that the tax authorities have accepted indicators, including the Berry ratio, operating margin and return on assets. For purposes of determining income, costs, gross margins, net sales, expenses, operating profit, assets and liabilities, Mexican GAAP should be followed.

### 3. Comparability Analysis

Mexican taxpayers that carry out related party transactions must determine their income and deductions by considering the prices that comparable companies would have used in comparable transactions. Companies or transactions are considered comparable when differences may be eliminated through reasonable adjustments. To identify differences between controlled transactions and the comparables, a number of factors must be considered, including characteristics of the transactions,<sup>13</sup> functional analysis, contractual terms, economic circumstances and business strategies.<sup>14</sup>

The use of "inexact" comparables has become established practice in countries such as Mexico, where there is limited access to information on public comparable transactions or companies and that lack reliable databases from which to derive transfer pricing information.

The items of the tested company should be determined based on Mexican GAAP. Where non-Mexican comparables are used to determine the transfer price, compliance with this rule will require careful analysis. Generally, the use of non-Mexican comparables will require adjustments to the financial statements of the comparable companies in respect of the accounting/valuation method applied to certain transactions. These adjustments are necessary to bring the financial statements of the comparable companies in line with the Mexican GAAP. Where such adjustments are made, the taxpayer should be prepared to explain and justify them.

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<sup>12</sup> In dealing with Mexico and U.S. transfer pricing issues, specifically with respect to the TOPMM method, it will depend on the level of aggregation of the transactions that the Mexican authorities will accept to determine whether the CPM is equal to the TOPMM method. The provisions of paragraphs 1.42, 1.43 and 3.26 of the OECD Guidelines should be taken into account when determining the level of aggregation of transactions. The Guidelines provide that "there are often situations where separate transactions are so closely linked or continuous that they cannot be evaluated adequately on a separate basis."

<sup>13</sup> Characteristics of the transactions include the following:

- For financing operations, the amount of the principal, term, guaranties, solvency of the debtor and interest rate;
- For the provision of services, the nature of the services, and whether the services involve technical experience or knowledge;
- For the use, enjoyment or sale of tangible goods, the physical characteristics, quality and availability of the goods;
- For the exploitation or transfer of intangibles, the length and degree of protection; and
- For the alienation of shares, the updated shareholders' equity of the issuing company, the present value of profits or projected cash flows or stock market quotation of the day before the sale.

<sup>14</sup> Business strategies would include market penetration, permanence and expansion.

## **B. Treaties, MAP and Competent Authority**

Mexico has entered into the following tax treaties that generally include a MAP clause in accordance with the OECD Model Tax Convention.

- Belgium
- Canada
- Chile
- Denmark
- Germany
- Finland
- France
- Ireland
- Israel
- Italy
- Japan
- Korea
- Netherlands
- Norway
- Singapore
- Spain
- Sweden
- Switzerland
- United Kingdom
- United States

The SAT has discretion to allow a Mexican taxpayer to amend its return to reflect the application of a proposed adjustment by a foreign tax administration if Mexico has concluded a tax treaty with the country making the adjustment.

## **C. Application**

### ***1. Taxpayer Obligations***

Taxpayers are allowed to obtain ranges of prices, considerations or profit margins through the adoption of any of the methods authorized under Article 65 when determining their transfer prices.

Article 65 states that a range may be adjusted by means of statistical methods. No reason is given why this may be necessary, although it is understood that it is in order to obtain a statistically representative sample. Based on the MTP this means that the SAT will accept methods that use interquartile ranges.

Further, in conformity with the OECD Guidelines, the Mexican rules provide that the taxpayer will be found to have determined its transfer price on an arm's length basis, if the amounts are within the arm's length range. Otherwise, the median will be deemed to be the arm's length price or amount of consideration.

Mexico does not impose specific methods for intangible property as is the case in the United States, nor does it follow the OECD recommendations in "The Taxation of Global Trading and Financial Instruments." Further, Mexican law does not permit cost sharing arrangements because under domestic law any pro rata expense incurred abroad is non-deductible (except in the case of permanent establishments).

The 2000 tax reform introduced a requirement to file a transfer pricing return. The first filing is due in February 2001 to report fiscal year 2000 related party transactions.

### ***2. Examinations, Dispute Resolution and APAs***

A taxpayer will be notified in advance of an audit, but the audit may commence the day after notification. No time limit is specified for the length of a transfer pricing audit. The SAT may use secret comparables (*i.e.*, confidential third party information) in making adjustments. The taxpayer is entitled to



## V. United States

### A. Legislation and Regulations

The purpose of section 482 is to ensure that taxpayers clearly reflect income attributable to controlled transactions and to prevent the avoidance of taxes with respect to those transactions. The Internal Revenue Service (hereinafter "Service") may make whatever allocations are necessary between or among controlled taxpayers, if it determines that the taxpayer has not reported its true taxable income. Taxpayers, however, may only use section 482 to report on a timely filed return an arm's length result that is different from the actual result. Taxpayers cannot compel the Service to apply section 482, nor can they file amended or untimely returns to decrease taxable income based on allocations or other adjustments to their controlled transactions.

#### 1. *The Arm's Length Standard*

A controlled transaction will be arm's length if the results are the same as would have been realized by uncontrolled taxpayers engaged in the same transaction in the same circumstances. The regulations, however, state that "because identical transactions can rarely be located, whether a transaction produces an arm's length result will be determined by reference to the results of comparable transactions under comparable circumstances."<sup>18</sup> This evaluation is to be made using a pricing method selected under the standards of the "best method rule" described below.

#### 2. *Best Method Rule*

Transfer prices must be determined using the best method, *i.e.*, the method that, under the facts and circumstances, provides "the most reliable measure" of an arm's length result. There is no strict priority of methods and any method may be used without establishing the inapplicability of another method. In selecting a method, the factors to consider in identifying the best method are: (i) the degree of comparability between controlled and uncontrolled transactions; (ii) the completeness and accuracy of the data; (iii) the soundness of the assumptions relied upon; (iv) the sensitivity of results to deficiencies in data and assumptions; and (v) where two methods produce inconsistent results, the confirmation of the chosen results by comparison with a third method.

#### 3. *Comparability*

The general standard of comparability requires that an uncontrolled transaction be sufficiently similar to the controlled transaction such that it provides a reliable measure of an arm's length result. The regulations do allow for a reasonable number of adjustments to the results of the uncontrolled transaction to account for material differences between the controlled and uncontrolled transaction, if such differences have a definite and reasonably ascertainable effect on prices or profits.

Under the regulations, all facts and circumstances that could affect prices or profits in arm's length dealings are taken into account when evaluating comparability. The general factors to be considered in evaluating comparability include:

- Functions performed and resources employed;
- Contractual terms;

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<sup>18</sup> Thus, under the regulations, controlled transactions may be evaluated by reference to uncontrolled transactions that are comparable, but not necessarily identical.

### **6. Methods for transfers of tangible property**

Under the regulations, a taxpayer has available six methods for determining taxable income from the transfer of tangible property: the CUP, RP, CP, CPM, PSM and other unspecified methods. Both the CPM and the PSM apply to transfers of both tangible and intangible property, and therefore they are discussed in a separate section, below.

**Comparable Uncontrolled Price Method** - The CUP method evaluates whether the amount charged in a controlled transaction is arm's length by reference to the amount charged in a comparable uncontrolled transaction. Such transactions can involve third parties to the transaction at issue, but also can involve the same taxpayer making a sale to or purchase from an uncontrolled taxpayer. An uncontrolled transaction is considered comparable if the tangible property and contractual terms are substantially the same as those of the controlled transaction and, if any minor differences exist, they either have no effect on the price or have a definite and reasonably ascertainable effect on price that can be accounted for by a reasonable number of adjustments to the uncontrolled transaction. Where the products and circumstances are sufficiently similar (*i.e.*, the product comparability standards are met), the CUP method generally will be the most reliable measure of the arm's length result of the controlled transaction.

**Resale Price Method** - The RP method evaluates whether the amount charged in a controlled transaction is arm's length by reference to the gross profit margin realized in comparable uncontrolled transactions. The RP method ordinarily is used in cases involving the purchase and resale of tangible property in which the reseller has not added substantial value to the tangible goods (by physically altering the goods or through the use of an intangible) before resale.

**Cost Plus Method** - The CP method determines an arm's length charge by comparing the gross profit markup realized in controlled and uncontrolled transactions. The CP method is ordinarily used in cases involving the manufacture, assembly or other production of goods that are sold to related parties.

**Unspecified Methods** - Where none of the previously discussed methods can reasonably be applied, another method may be used to determine the arm's length price.

### **7. Methods for Transfers of Intangible Property**

If an owner of the rights to exploit an intangible transfers such rights to a controlled taxpayer, the owner must receive an arm's length consideration. An "intangible" is defined as an asset that has substantial value independent of the services of any individual, including: (i) patents, inventions, formulae, processes, designs, patterns or know-how; (ii) copyrights and literary, musical or artistic compositions; (iii) trademarks, trade names, or brand names; (iv) franchises, licenses, or contracts; (v) methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, estimates, customer lists or technical data; and (vi) other similar items that derive value from their intellectual content or other intangible properties, not from their physical attributes. The owner of a particular intangible is either the legal owner of the right to exploit the intangible if the intangible is legally protected, or the developer of the intangible if the intangible is not legally protected. However, if the owner received assistance (*e.g.*, loans, services, tangible or intangible property) in the development or enhancement of the intangible from a related party, then such related party may be entitled to an arm's length consideration for such assistance.

The arm's length amount to be charged for the use of intangible property may be determined under one of the following four methods: the comparable uncontrolled transaction method, the CPM, the PS and an unspecified method.

**Comparable Uncontrolled Transaction (CUT) Method** - The CUT method evaluates whether the amount charged for a controlled transfer of intangible property was arm's length by reference to the

***Profit split method*** - The PSM compares the allocation of the combined operating profit or loss attributable to controlled transactions to the relative value of each controlled taxpayer's contribution to that combined operating profit or loss. The allocation should correspond to the division of profit or loss in an uncontrolled transaction, where each party performs functions similar to those of the controlled taxpayers. The profit allocated to any particular member of a controlled group is not necessarily limited to the total operating profit of the group from the relevant business activity. Thus, in a given year, one member of the group may earn a profit while another member incurs a loss. The regulations provide for a comparable profit split method and a residual profit split method.

### ***8. Cost Sharing Arrangements***

Despite the addition of the "commensurate with income" standard to section 482 in 1986, the Conference Committee report to the 1986 Act made it clear that the change was not intended to preclude the common practice of related parties entering into bona fide research and development cost sharing arrangements for the development of intangibles. The report stated, however, that for cost sharing arrangements to be consistent with the "commensurate with income" standard, a participant should be expected to bear its portion of all research and development costs, the allocation of costs generally should be proportionate to profit as determined before deduction for research and development, and to the extent one participant begins funding R&D at a much earlier point in time than another participant, that participant should receive an appropriate return on its investment.

### ***9. Penalties***

Section 6662(e) and (h) sets forth penalties of 20 and 40% for certain increases in U.S. income tax attributable to section 482 adjustments. One significant objective of the so-called transfer pricing penalty was to improve taxpayer compliance with the arm's length standard by encouraging (some might say forcing) taxpayers to make reasonable efforts to determine and document arm's length prices for their intercompany transactions. However, the penalty will not apply to the extent that the taxpayer complies with specified contemporaneous documentation requirements.

### **B. Tax Treaties, MAP and Competent Authority**

The United States and most of its trading partners maintain an extensive network of tax treaties, the stated purposes of which are to eliminate double taxation and prevent tax evasion. In situations where the application of United States and foreign tax laws would result in the taxpayer being subject to double taxation, a taxpayer may invoke a tax treaty's mutual assistance procedure to request relief from double taxation. The application of domestic transfer pricing laws fall under tax treaty jurisdiction pursuant to the "Associated Enterprises" articles contained in the various treaties. Generally, the "Associated Enterprises" provision allows the tax authority of one country to include in the income of one of its taxpayers the income of a related party located in another country if the two parties did not act at arm's length. Because unilateral transfer pricing adjustments will always result in double taxation, taxpayers may request competent authority assistance under the treaty's mutual assistance procedure whenever they are subject to a transfer pricing adjustment.

Once a taxpayer's request for relief is accepted, the competent authorities of both treaty countries will attempt to reach a settlement that eliminates double taxation through the mutual attribution of income, deductions, credits, or allowances between related taxpayers.

authority for a bilateral APA) will regard the results of applying the TPM as satisfying the arm's length standard provided the taxpayer complies with its terms. The duration of an APA is typically from three to five years, and can be renewed in future years. An APA can also be applied to previous years ("rolled back") in certain circumstances. In addition to the *Traditional* APA, in 1998, the IRS addressed taxpayers concerns about time and expense in obtaining an APA by issuing procedures for small business taxpayers to obtain an APA that will be negotiated under a streamlined process.

## VI. Venezuela

### A. Legislation and Regulations

The Venezuelan transfer pricing rules focus primarily on import and export transactions of tangible property, although certain rules target interest charges between related parties. Royalties, technical assistance fees and technological service fees are specifically excluded from the transfer pricing legislation since these types of payments are covered by other provisions that limit the amount that may be deducted. In this respect, the Venezuelan transfer pricing rules resemble the rules in Brazil.

Following the trend in Latin America (*e.g.*, Argentina, Brazil and to some extent Mexico), Venezuela has adopted diverse and complex attribution rules in terms of indirect and family relationships. The legislation includes safe harbors in manner similar to that of Brazil as well as the arm's length standard similar to that of Mexico.

#### 1. Definition of Related Parties

The provisions determining related party status are very broad. Parties may be deemed related under the Venezuelan rules in situations where those parties would not be deemed related under the related party definitions used in most OECD countries.

- Through a relationship with a legal entity domiciled in Venezuela;
- Through a relationship with a permanent establishment in Venezuela; or
- Through a relationship with a fixed base in Venezuela.

The transfer pricing law contains three types of attribution: attribution based on legal structure, family relationship and on both family relationship and legal structure.

#### 2. Transactions with Low-Tax Jurisdictions

Venezuela includes a rebuttable presumption that a Venezuelan entity conducting business with an entity in a low-tax or tax haven jurisdiction is conducting business with a related party. Unlike the rules in Argentina, the Venezuelan statute does not define "low-tax jurisdiction." Nevertheless, based on other sections of the tax reform, it is anticipated that the Venezuelan tax authorities will publish a list of countries considered low-tax jurisdictions following Mexico's practice.

#### 3. Methodologies for Import Transactions

Taxpayers may use the following methods in computing an arm's length price for import transactions: CUP, RP, production cost method<sup>20</sup> and transactional operating profit margin method

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<sup>20</sup> This method is equivalent to the CP method in the OECD Guidelines.

services or rights between unrelated parties in the destination market during the same fiscal period and under similar methods of payment financing.

If the exporter's sales price fails to meet the 90% test, the exporter must determine its income by using one of the five official transfer pricing methods designated for exports. The permitted methodologies are as follows:

**Average Export Sales Price Method:** This method is the company's average sale price for other customers or another domestic exporter with identical or similar goods, services or rights.

**Wholesale Sales Price Method:** This method is based on sales to the country of destination less the wholesaler's profits, *i.e.*, the wholesale sales price is the average price of the goods, services or rights in the wholesale market in the country of destination. The wholesale sales price is based on similar payment conditions and is calculated by subtracting the sales tax included in the country of destination and subtracting a profit margin on the wholesaler's sales price. The Venezuelan tax authorities may establish this profit margin by issuing administrative regulations.

**Retail Sales Price Method:** The RP method is based on sales to the country of destination less the retailer's profits. The retail sales price is the average price of identical or similar goods sold in the country of destination. The tax authorities apply payment factors analogous to the wholesale sales price by subtracting the sales tax of the country of destination and the profit margin from the retail price. The tax authorities may establish this profit margin by issuing administrative regulations.

**Production Cost Method Plus Profits Method:** The Venezuelan tax administration may determine export sales income through the purchase price plus profits or production price plus profits method. This method consists of determining the average purchase or production price of the exported goods, services or rights, plus adjustments. The tax administration, through administrative regulations, is to add the taxes imposed on the sales activity by either country and add a profit margin based on the sum of the costs and taxes.

**Transactional Operating Profit Margin Method:** The TOPMM permits the taxpayer to determine the profitability that would have been obtained by comparable businesses or by unrelated parties in similar situations. This comparison could take into account factors such as profits that are based on other factors such as assets, costs, expenses or currency fluctuation.

### **5. Financing transactions**

The Venezuelan transfer pricing legislation reflects to some extent the reality of inflation and currency devaluation in the country. Interest paid or credited between related parties is deductible only for the purpose of determining taxable income up to the amount that does not exceed the value calculated based on LIBOR rates to deposit U.S. dollars for a period of six months, increased by the annual percentage proportionate to the period to which the interest refers. The Venezuela tax authorities determine this percentage based on information from the Central Bank.

### **6. Information Gathering**

Venezuelan law allows taxpayers to use various sources of information to support their transfer prices. Costs, average prices and profit margins are to be determined by taking into account the following:

- Official publications and bulletins, issued by a domestic or foreign recognized institution, of the buyer's and seller's countries. Declarations by the tax authorities may be used if that country has concluded a double tax treaty with Venezuela that provides for the exchange of fiscal information.

**2. Examinations, Dispute Resolution, APAs**

Since the transfer pricing rules are a relatively new initiative in Venezuela, the tax authorities have had no practical experience with transfer pricing audits.

The Venezuelan statute does not provide for APAs.

**SESION 4**

**INCENTIVOS FISCALES Y COMPETITIVIDAD:  
EXPERIENCIA Y PERSPECTIVAS PARA AMERICA LATINA  
Y EL CARIBE EN UNA ERA DE CRECIENTES CONFLICTOS  
ECONOMICO-COMERCIALES INTERNACIONALES**

**LAS REGLAS MULTILATERALES SOBRE SUBSIDIOS A LA LUZ DE ALGUNOS  
FALLOS DE LA ORGANIZACIÓN MUNDIAL DEL COMERCIO (OMC)<sup>1</sup>**

**Vivianne Ventura Dias<sup>2</sup>**

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<sup>1</sup> Esta es una versión preliminar y no editada del documento.

<sup>2</sup> La autora es Directora de la División de Comercio Internacional y Financiamiento para el Desarrollo de la Comisión Económica para América Latina y el Caribe (CEPAL). Sin embargo, las opiniones emitidas en este ensayo son personales y no involucran la institución de la cual ella es miembro.



## 1. Introducción

La subvención directa o indirecta de actividades económicas por el sector público es una práctica tan antigua cuanto la propia existencia de los Estados naciones. Los aportes del erario público tienen el propósito de reducir los costos de producción, de comercialización, de transporte, o de consumo de productos específicos, y por lo tanto inciden sobre las condiciones de competencia en estos mercados. Sin embargo, hasta la última ronda de negociaciones comerciales multilaterales (1986-1993), los subsidios no estaban cubiertos por reglas multilaterales precisas. La Ronda Uruguay definió por primera vez conceptos y limitaciones para el empleo tanto de los subsidios a la exportación como de los subsidios a la producción, así como reglas y procedimientos para la aplicación de medidas compensatorias. Vale notar que los negociadores lograron que los subsidios a los productos y a los productores agropecuarios fueron incluidos en el Acuerdo sobre la Agricultura y tuvieron un trato diferente de los subsidios a la producción y exportación de manufacturados cuyas reglas están definidas en el Acuerdo sobre Subvenciones y Medidas Compensatorias (SMC). Las disciplinas sobre subvenciones a la producción y exportación de los servicios aún no han sido objeto de negociaciones.<sup>3</sup>

Es importante destacar que en lo relativo a los subsidios no agrícolas, las disciplinas sobre Subvenciones y Medidas Compensatorias tienen un doble propósito. Por una parte, restringir el uso de ciertas subvenciones por sus efectos negativos sobre el comercio de los demás signatarios de los acuerdos; y por otra, restringir la introducción unilateral y arbitraria de medidas de compensación por daños debidos a importaciones sospechas de haber recibido subsidios.

Durante los seis años de operación de la OMC, solamente cinco de los cerca de 55 informes emitidos por el organismo de solución de controversia de esta institución se refirieron a quejas por subvenciones. Los casos más recientes y también los más complejos se refieren a las quejas cruzadas de los gobiernos de Brasil y Canadá por subvenciones a la exportación de aviones civiles producidos respectivamente por la empresa brasileña Embraer y la canadiense Bombardier, y la querrela de la Unión Europea por los subsidios otorgados por el gobierno de los Estados Unidos a ciertas operaciones de sus empresas transnacionales, las exenciones de impuestos a las Empresas de Ventas Externas (*Foreign Sales Corporations*) de los Estados Unidos.<sup>4</sup>

Este documento tiene como objetivo presentar las reglas multilaterales sobre subsidios, a partir de la interpretación de las mismas por el sistema de solución de controversias de la OMC en sus fallos de los casos de Brasil contra Canadá y Canadá contra Brasil. Está dividido en cinco partes. La segunda, subsecuente a esta introducción, describe la evolución de la normativa multilateral sobre subvenciones. La tercera examina someramente el órgano de solución de controversias de la OMC con vistas a exponer los procedimientos, sus propósitos y los límites de su acción. La sección cuarta proporciona información sobre los dos fallos de la OMC referidos anteriormente. Finalmente, la última sección presenta algunas cuestiones planteadas por la normativa multilateral a la acción de los gobiernos.

<sup>3</sup> El Artículo XV (Subvenciones) del Acuerdo General sobre el Comercio de Servicios define "Los miembros reconocen que, en determinadas circunstancias, las subvenciones pueden tener efectos de distorsión del comercio de servicios. Los Miembros entablarán negociaciones con miras a elaborar las disciplinas multilaterales necesarios para evitar esos efectos de distorsión..." (GATT, 1994, pág. 357).

<sup>4</sup> Dos otros casos abarcan una reclamación de los Estados Unidos contra subsidios otorgados por Australia a productores y exportadores de cuero utilizados en autos (documento de la OMC WT/DS126/1) y una queja conjunta de los Estados Unidos, la Unión Europea y Japón en contra de la política automotiva de Indonesia (documento de la OMC WT/DS54, 55, 59 & 64) (véase la página web de la OMC <http://www.wto.org>).

general criticados, los subsidios a la producción eran considerados legítimos, en términos del desarrollo de la producción local, y lícitos ante los principios del GATT, desde que no hubieran trabas a la libre importación, dado que permitirían a la industria local adquirir escala y competir con las importaciones, lográndose así un aumento de la eficiencia global (Dam, 1970/1977, págs. 133-141).<sup>7</sup>

Por otra parte, en la ausencia de reglas claras hasta la Ronda Uruguay, los Estados pasaron a desarrollar su legislación interna con el propósito de "remediar" los efectos de las prácticas de los otros Estados. Como se dijo anteriormente, cuando se considere que han tenido lugar algún tipo de subvención que ha causado o amenaza causar un perjuicio importante a la industria nacional, la subvención puede ser contrarrestada con un derecho compensatorio equivalente.

Desde 1897, los Estados Unidos mantienen leyes internas para "remediar" los efectos de las prácticas de los otros Estados (derechos compensatorios).<sup>8</sup> Inicialmente aplicada para compensar los productores domésticos de donaciones públicas a las exportaciones que eran gravadas en aquel país, la ley fue ampliada en 1922 para incluir subsidios domésticos. Además, las Leyes de Comercio de 1974 y de 1979 ampliaron considerablemente la autoridad federal para imponer derechos compensatorios. El mayor problema residía en que los derechos compensatorios eran aplicados sin que la existencia de un "daño importante", llamada "prueba de daño", fuera demostrada con rigor.<sup>9</sup>

Durante la Ronda Tokio (1973-1979) no fue posible llegar a un acuerdo generalizado relativo a "la interpretación y aplicación de los artículos VI, XVI y XXIII del GATT".<sup>10</sup> El principal escollo fue la inclusión de los subsidios a la producción, que era deseada por los Estados Unidos, pero no por los países de Comunidad Europea. Por otra parte, los países en desarrollo defendían su derecho de seguir utilizando subvenciones gubernamentales para diversificar su estructura productiva sin la imposición de derechos compensatorios por los países industrializados. Finalmente, estos países decidieron no suscribir el Código de Subsidios (Winham, 1986).

De toda manera, el Código de Subsidios, que resultó de la Ronda Tokio se constituyó el primer texto abarcante de disciplinas multilaterales sobre el uso de subsidios en el comercio internacional (Jackson, 1989/1992). Según Maciel (1994, pág. 256) la metodología del acuerdo era defectuosa, el propio acuerdo era vago en muchos puntos y el lenguaje jurídico era muy impreciso. Estos problemas deberían ser solucionados en el nuevo texto a ser negociado en la Ronda Uruguay.

El Acuerdo sobre Subvenciones y Medidas Compensatorias (SMC) que resultó de la Ronda Uruguay consta de 32 artículos y siete anexos que extendieron de forma significativa los 18 artículos del Código de 1979. Por la primera vez define con rigor y abundancia de detalles el término subvención, como una medida costada por el erario público, que otorga un beneficio a empresa(s) o rama(s) de producción específicas, y que se aplica en una de dos situaciones:

<sup>7</sup> La literatura económica reconoce que los subsidios afectan los patrones de producción de productos específicos mientras que los aranceles tienden a distorsionar tanto los patrones de producción como los de consumo.

<sup>8</sup> En el espíritu de sus leyes y en su práctica, siempre existió un amplio consenso en los Estados Unidos acerca de la legitimidad de la protección de las industrias locales afectadas por el comercio. En virtud de la ley de 1897, el secretario del Tesoro debería imponer un gravámen especial a los productos que se concluyeran que habían sido subvencionados en el país de origen, en un monto análogo al del subsidio. La misma ley abarcaba también los bienes vendidos a precios inferiores a su real valor (*dumping*) (Destler, 1992, pág. 139).

<sup>9</sup> Entre 1934 y 1968 se hicieron 191 investigaciones de subvenciones de las cuales solamente 30 casos concluyeron con la imposición de derechos compensatorios. Sin embargo, entre 1980 y 1984 se iniciaron cerca de 258 casos de medidas compensatorias, de las cuales, 135 se concluyeron con la imposición de derechos o bien la suspensión de las subvenciones alegadas (Destler, 1992, págs. 141 y 154).

<sup>10</sup> El Artículo XXIII se refiere a acciones de las Partes Contratantes ante el no cumplimiento de las obligaciones por otra parte contratante (anulación o menoscabo).

Código de la Ronda Tokio, ellos tenían derecho a mantener subsidios a la exportación y los subsidios a la sustitución de importaciones no eran objeto de medidas compensatorias por otros países. Además, el lenguaje del Acuerdo SMC permite suponer que un subsidio a la sustitución de importaciones puede ser recurrible independientemente de ser *de jure* o *de facto* específico o de otorgar un beneficio.

Todas las subvenciones que no sean claramente definidas como “no-recurribles”, que cumplan con las condiciones de la definición de subsidio (artículo 1); que no sean “prohibidas”, y que no se refieran a “productos agropecuarios” pueden ser “recurribles” ante el Órgano de Solución de Diferencias de la OMC. Las subvenciones “no recurribles” son las siguientes (artículo 8):

- a) la asistencia para actividades de investigación realizadas por empresas, o por instituciones de enseñanza superior o investigación contratadas por empresas, bajo ciertas condiciones;
- b) asistencia para regiones desfavorecidas situadas en el territorio de un Miembro, prestada con arreglo a un marco general de desarrollo regional y no específica, bajo ciertas condiciones;
- c) asistencia para promover la adaptación de instalaciones existentes a nuevas exigencias ambientales impuestas mediante leyes y/o reglamentos que supongan mayores obligaciones o una mayor carga financiera para las empresas, bajo ciertas condiciones.

### 3. El Sistema de Solución de Controversias de la OMC: los límites de su acción jurídica

El Órgano de Solución de Controversias de la OMC no es ni tiene el propósito de ser un tribunal comercial internacional. Las partes contratantes buscan imponer una solución de consenso negociada a un diferendo de naturaleza comercial que mantenga el equilibrio de derechos y obligaciones entre los países miembros. El Entendimiento relativo a las normas y procedimientos por el que se rige la solución de diferencias, que es parte del conjunto de acuerdos, decisiones, declaraciones y entendimientos que resultaron de la Ronda Uruguay, otorgó más automaticidad en la adopción de decisiones, plazos precisos, el establecimiento de un Órgano de Apelación, un mecanismo de retorsión cruzada, y reglas especiales para los casos en que no se alegue infracción de obligaciones (Millán, 1994, pág. 347).<sup>15</sup>

El Artículo 3:2 define el sistema de solución de diferencias de la OMC como “un elemento esencial para aportar seguridad y previsibilidad al sistema multilateral de comercio.” Además, que “sirve para preservar los derechos y obligaciones de los Miembros en el marco de los acuerdos abarcados y para aclarar las disposiciones vigentes de dichos acuerdos de conformidad con las normas usuales de interpretación del derecho internacional público.” Por otra parte, “las recomendaciones del OSD (Órgano de Solución de Diferencias) no pueden entrañar el aumento o la reducción de los derechos y obligaciones establecidos en los acuerdos abarcados” (GATT, 1994, pág. 421-422).

A su vez, el párrafo 3 del mismo artículo dispone que “el mantenimiento de un equilibrio adecuado entre los derechos y obligaciones de los Miembros” depende de una “pronta solución de las situaciones en las cuales un Miembro considere que cualesquiera ventajas resultantes para él directa o indirectamente de los acuerdos abarcados se hallan menoscabadas por medidas adoptadas por otro Miembro”. La definición de anulación está clara en el párrafo 8: “El incumplimiento de las obligaciones que fueron contraídas en función de un acuerdo determina un caso de anulación o menoscabo” (Artículo 3,

<sup>15</sup> Sáenz (1999, pág. 328) se refiere al Entendimiento como una codificación de las prácticas desarrolladas por el GATT desde su creación en 1947. Los Artículos XXII y XXIII son las únicas disposiciones sobre solución de controversias del GATT de 1947, pero no contienen aspectos precisos de procedimientos.

respectivas.<sup>17</sup> Las dos querellas avanzaron con los mismos plazos. El 14 de abril de 1999 circularon los informes de los dos grupos especiales (WT/DS70/R y WT/DS46/R), y el 2 de agosto de 1999 circularon los dos fallos del Órgano de Apelación (WT/DS70/AB/R y WT/DS46/AB/R).<sup>18</sup>

### *El caso de Brasil contra Canadá*

Brasil solicitó al grupo especial que verificara que ciertos subsidios empleados por Canada eran *de jure* o *de facto* contingentes a un desempeño exportador, y por lo tanto eran inconsistentes con el Artículo 3 del Acuerdo SMC, respectivamente:

1. garantías de financiamiento y préstamo por EDC (Export Development Corporation) incluyendo aportación de capital a empresas establecidas para facilitar las exportaciones de aeronaves civiles;
2. Apoyo a la industria de aeronaves civiles por Canada Account;
3. Fondos suministrados a la industria de aeronaves civiles por Technnology Partnerships Canada (TPC) y los programas que la precedieron, específicamente el Defence Industry Productivity Programme (DIPP);
4. la venta por Ontario Aerospace Corporation, una agencia del gobierno de la provincia de Ontario, de 49% de participación en una empresa de aeronaves civiles (de Havilland, Inc.) en términos favorables;
5. beneficios otorgados por el Canada-Québec Subsidiary Agreement on Industrial Development; y
6. beneficios otorgados por el Gobierno de Québec por la Societé de Développement Industriel (SDI) du Québec (OMC 1999a), págs. 2 y 3).

Brasil enfrentó una misión doblemente difícil: por una parte, defender el PROEX de las acusaciones de ser subsidio prohibido, y por otra, de encontrar evidencias amplias de los subsidios generalizados canadienses, para las cuales, sería necesario obtener información confidencial y no disponible. Además, mientras Canadá tenía una queja muy específica, la de Brasil, al contrario, abarcaba una vasta gama de instrumentos e instituciones.<sup>19</sup>

La defensa de Canadá fue muy enfática en negar información que describiera los detalles de las operaciones financieras de las instituciones acusadas por Brasil de promover las exportaciones de aeronaves civiles del país. Según Canadá, Brasil tenía la responsabilidad de presentar su caso ante el grupo especial. Por lo tanto, el gobierno brasileño debería encontrar suficiente evidencia para que se formara la sospecha de que sus afirmaciones acerca de la práctica de subsidios prohibidos en Canadá eran verdaderas. Es decir, según la percepción canadiense, y que fue posteriormente respaldada por el grupo especial, si Brasil no disponía de tales pruebas, Canadá no tenía la obligación de suministrar información adicional, y consecuentemente, la querella de Brasil no debería ser aceptada. En el caso en que Brasil dispusiera de tal información, entonces la otra parte debería aceptar el costo de desacreditar la sospecha con fuerte evidencia.<sup>20</sup>

El gobierno brasileño tuvo que basarse en la información disponible acerca de los varios programas canadienses, y en información circunstancial sobre el impacto de estos programas en las

<sup>17</sup> En la querella cruzada, los Estados Unidos y la Comunidad Europea reservaron sus derechos de participar en los procedimientos del grupo especial como terceras partes.

<sup>18</sup> Los informes de los dos grupos especiales fueron distribuidos a las partes el 12 de marzo de 1999.

<sup>19</sup> Para Canadá, entregar las informaciones confidenciales *transaction-specific* solicitadas por Brasil transformaría el proceso de los grupos especiales de la OMC en comisiones de inquérito (OMC 1999a, pág. 22).

<sup>20</sup> OMC, 1999b, págs. 23 y 24, párrafo 4.94).

extendido hasta 15 años. La extensión del tiempo, a su vez, determina el *spread* a ser ecualizado, que varía entre 2 a 3.8 puntos porcentuales por año. El PROEX es administrado por una agencia interministerial (Comité de Crédito a las Exportaciones) y las operaciones son coordinadas por el Banco do Brasil, que tiene autoridad para autorizar operaciones que no excedan 15 millones de dólares. Operaciones con valores superiores deben ser autorizadas por el Comité (OMC, 1999a, págs. 2-3).

En primero lugar, Canadá solicitó al grupo especial respaldar su percepción de que:

1. los pagos de ecualización de intereses por el PROEX constituyen subsidios en el sentido del artículo 3 del Acuerdo de SMC;
2. la ecualización de intereses otorgada a las transacciones de Embraer constituyen subsidios prohibidos;
3. estos pagos no se constituyen excepciones al Artículo 3;
4. Brasil no había satisfecho las condiciones del Artículo 27.4, y que, por lo tanto, no podía beneficiarse de los ocho años del periodo de gracia permitido para los países en desarrollo bajo el Artículo 27.2(b).

Canadá solicitó que el grupo especial formulara las siguientes recomendaciones:

1. Brasil no debería otorgar nuevos subsidios bajo PROEX incluyendo subsidios prometidos o obligados, pero que no hayan sido ejecutados, y que afectan aeronaves regionales que no fueran entregadas;
2. Brasil debería terminar con los subsidios de ecualización de tasas de intereses bajo el PROEX, antes de los tres meses posteriores a la adopción del informe del grupo especial por el Órgano de Solución de Controversias (OSC);
3. Brasil deberá retirar los subsidios PROEX otorgados a transacciones posteriores a la formación del grupo especial, el 22 de octubre de 1998;
4. que los pagos parcelados se terminen antes de tres meses después de la adopción del informe del grupo especial, en lo que se refiere a aeronaves que no hayan sido entregadas o de aeronaves entregadas después de esa fecha;
5. si el grupo especial decide que los subsidios PROEX son otorgados en el momento de entregar la aeronave, que el grupo recomiende que tales subsidios no sean otorgados a ninguna aeronave entregada después de la fecha de adopción del informe del grupo especial por el OSC; y
6. que sean eliminados los subsidios a la ecualización de intereses a todos los pedidos de aeronaves realizados entre la fecha de establecimiento del grupo especial y la adopción de su informe por el OSC.

La línea de defensa del gobierno brasileño se centró en admitir que los pagos de ecualización de intereses para aeronaves constituían subsidios a la exportación, (una transferencia potencial directa de fondos) pero que estaban exentos de las prohibiciones del Artículo 3.1(a) en virtud del Artículo 27 y del ítem (k) de la lista ilustrativa de subsidios prohibidos. El ítem (k) incluye "...el pago de la totalidad o parte de los costes en que incurran los exportadores o instituciones financieras para la obtención de créditos, en la medida en que se utilicen para lograr una ventaja importante en las condiciones de los créditos a la exportación." El planteamiento de Brasil consistía en argumentar que el contrario de la disposición era que tales pagos son *permitidos* desde que no sean utilizados para asegurar una ventaja material en las condiciones de los créditos a la exportación.

Entre las condiciones que determinaban que la ecualización de las tasas de intereses no aseguraban una ventaja material a Brasil, la defensa argumentó sobre el riesgo soberano de Brasil que justificaría la adopción del instrumento de PROEX. Entre los varios datos, Brasil indicó que las tasas sobre los títulos

Posteriormente, el Órgano de Apelación, con pequeñas modificaciones, mantuvo el fallo del grupo especial, deliberando que Brasil debería eliminar los subsidios del PROEX en los 90 días siguientes a la adopción del fallo.

## 5. Consideraciones finales

La presentación concisa de los resultados de los dos casos sobre subsidios ante la OMC no hace justicia a los elegantes y detallados planteamientos jurídicos que componen los informes de los grupos especiales y del Órgano de Apelación. Conceptos, reglas y procedimientos de los Acuerdos respectivos son revisados continuamente por el sistema de solución de controversias generando una jurisprudencia que amplía los compromisos iniciales.

Los dos fallos representaron una doble derrota para Brasil. La primera, por no poder demostrar con precisión, por falta de pruebas conclusivas, la extensión de los subsidios canadienses. La segunda, por verificar que su situación de país en desarrollo no le facultaba mantener subsidios claramente comprobados como prohibidos, dado que no había cumplido con otras condiciones del acuerdo.

El Acuerdo sobre Subsidios y Medidas Compensatorias representó una gran concesión de los países en desarrollo a la normativa de comercio internacional, por dos razones: porque estos países aceptaron disciplinas multilaterales a los subsidios a la exportación, y la inclusión de disciplinas a los subsidios orientados hacia las industrias sustitutivas de importación. Por un lado, lo hicieron, porque necesitaban de mayor protección multilateral contra las prácticas de economías más poderosas, que aplicaban medidas compensatorias unilaterales y arbitrarias, sin un proceso justo de identificación de pruebas de daño. Asimismo, porque suponían que el trato especial y diferenciado les permitiría mantener sus instrumentos de promoción de exportaciones por un cierto periodo de transición.

A su vez, el Órgano de Solución de Controversias de la OMC no es un Tribunal de Comercio Internacional. El OSC opera bajo las restricciones de su mandato específico dictado por las reglas de la OMC, ampliada y especificada por la jurisprudencia de su práctica legal. Pero, también opera bajo las restricciones del derecho público internacional, es decir, enfrenta las dificultades de imponer sanciones a Estados soberanos y de efectividad de los fallos. El OSC recomienda la eliminación de una determinada medida que fue juzgada incompatible con las obligaciones del Miembro ante la OMC, y cuya ejecución disminuye o menoscaba los derechos de otro o otros Miembros. El propósito de la acción del OSC es la eliminación de la medida, a través de la persuasión y negociación entre las partes. En la ausencia de un entendimiento, posteriormente a la adopción del informe del Órgano de Apelación, el país querellante puede imponer derechos compensatorios.

**COURTING FDI: IS COMPETITION BAD?**

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## Abstract

This paper examines the convenience of banning the use of subsidies to attract foreign direct investment. We find that competition with subsidies achieves the efficient allocation of investment projects. The effect of banning subsidies on the welfare of the host countries is ambiguous, and depends on the differences in social returns of investment among them. Eliminating subsidies benefits host countries only when these are sufficiently similar. In addition, we find that the best alternative for host countries is to delegate the decisions regarding the maximum subsidy allowed to a supra-national authority. Provided countries with the highest social returns are also those with the highest private returns, this solution achieves the efficient outcome, and at the same time maximizes welfare for the host countries.

## I. Introduction

One of the most important features of the trend toward globalization in recent times has been the increased importance of foreign direct investment around the world. Together with this increase in FDI, competition among potential hosts to attract FDI has intensified as well. To the extent that foreign direct investment projects generate positive externalities for the host countries, related to activities such as innovation or labor training, there is a case for countries to offer subsidies in order to lure potential investors to locate within their boundaries. However, the increase in the intensity of competition observed in recent years has raised concerns regarding its effects on the welfare of host countries. In particular, as a result of competition, foreign firms may be able to appropriate all the benefits associated to FDI. This raises a number of important questions: What are the effects of competition for FDI on the welfare of the world as a whole? Are host countries better off by banning incentives for FDI? Should these countries restrict competition in any way? In this paper, we develop a model of competition for FDI in order to answer some of these important questions.

A striking illustration of the increased intensity of competition for FDI is provided in table 1, which is reproduced from Oman (2000a). The table, which is based on unofficial sources, shows the cost of the subsidy per worker for a set of 14 FDI projects in the automobile sector, both in developed and developing countries, during a period spanning from 1980 to 1997. The escalation of costs is remarkable.

**Table 1**  
**Investment Incentives in the Automobile Industry**

Date of Package	Country of Project	Investor	Amount per Job* (US dollars)
1980	United States	Honda	4000
Early 1980s	United States	Nissan	17000
1984	United States	Mazda-Ford	14000
mid-1980s	United States	GM Saturn	27000
mid-1980s	United States	Mitsubishi-Chrysler	35000
mid-1980s	United States	Toyota	50000
mid-1980s	United States	Fuji-Isuzu	51000
Early 1990s	United States	Mercedes Benz	168000
1992	Portugal	Ford-Volkswagen	265000
1995	Brazil	Volkswagen	54000-94000
1996	Brazil	Renault	133000
1996	Brazil	Mercedes Benz	340000
1997	Germany	Volkswagen	180000
1997	India	Ford	200000-420000

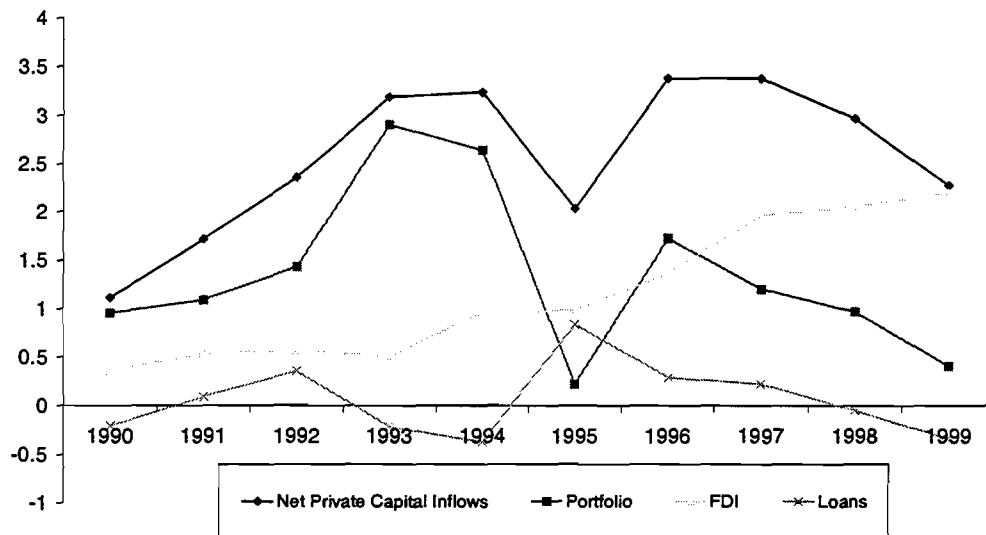
Note\*: Estimated value of fiscal and financial incentives supplied by national and sub-national governments to a particular investment project, divided by the number of jobs the project was expected directly to create.

Sources: Unofficial, cited in Donahue (United States), Bachtler et al. (Europe), Da Motta Veiga and Iglesias (Brazil) and Venkatesan et al. (India)



and fiscal autonomy of subnational governments. In some countries, such as Brazil, subnational governments have also recently become major players in this game. In fact, the escalation of subsidies for FDI in the automobile sector shown in table 1 has for the most part resulted from competition among subnational units of government within the same country, rather than competition among countries.

**Figure 2: Net Private Capital Inflows, Portfolio, FDI and Loans in Latin America, 1990-99**



Note: As percentage of GDP.  
Source: Balance of Payments, IMF.

The relevant space of competition for FDI is defined not only by the willingness of potential host countries to engage in competition, but also by the nature of the goods produced, and the existence of natural and policy-induced barriers to trade. The more tradable the goods, and the lower the barriers to trade, the greater the scope for competition. The reduction in trade barriers experienced in most of the world has increased the space of competition. Similarly, the appearance of new activities such as e-business, which can provide similar services to the entire world from any location, may potentially increase the intensity of competition as well.

Competing by offering subsidies is not the only way for countries to court potential investors. Oman (2000b) discusses other forms of competition, both benign and potentially harmful. Countries could compete by improving their institutions, the quality of their labor force or the quality of their infrastructure. This competition, which Oman refers to as "beauty contest" would obviously have positive externalities. On the other hand, countries could compete by relaxing labor or environmental standards, which could have obvious adverse effects on the welfare of the population. While these other forms of competition may also be important, in this paper we focus exclusively on the effects of incentive-based competition.

## II. A simple model of competition for FDI

In this section we consider the returns of FDI, both private and social. To the extent that social returns exceed private returns, i.e., there are positive externalities, countries may be willing to provide subsidies to ensure that investment takes place. To make the problem interesting we assume that there are in fact positive externalities associated with FDI, an assumption upon which most economists agree.



The solution to the above problem is such that the country with the largest social return gets the localization of FDI. In other words, transfer competition results in a social return equal to  $\text{Max}(s_1=p_1+e_1, s_2=p_2+e_2)$ , that is to say, allocative efficiency. Under our assumption ( $s_1 \geq s_2$ ), without loss of generality, FDI will localize in country 1 after it makes a winning transfer offer  $t^*_1=\text{Max}(r-p_1, s_2-p_1)$ . This offer gives the firm an overall return  $p_1+t^*_1$  that matches its cost of capital  $r$  and the social return in country 2, whichever is larger. The simplest case is the one in which the social return in country 2 is insufficient for a productive investment ( $s_2 < r$ ), which effectively removes competition. In this case the problem boils down to the non-traded case analyzed in the previous section, in which in fact  $t^*_1=r-p_1$ , and the conclusion follows.

The more interesting case is when country 2 is also efficient ( $s_2 \geq r$ ) and competition is relevant. In this case,  $t^*_1= s_2-p_1$ , larger than under no threat of competition. First we check that this is an incentive-compatible transfer, since under the assumption that  $s_1 \geq s_2$ ,  $e_1= s_1- p_1 \geq s_2 - p_1= t^*_1$  (the public incentive to attract FDI holds) and in this case  $p_1+ t^*_1=s_2 \geq r$  (private incentive to invest holds). Second we check that country 2 has no incentive-compatible transfer that beats this offer (the private incentive to localize in country 1 holds). In fact, with this offer the investor gets an overall return of  $p_1+ t^*_1=s_2$ . It is easy to check that this can be matched by country 2 if it offers  $t_2=e_2$ , so that  $p_2+t_2=s_2$ . However, country 2 could better this offer granting all of its social return to the investor only by offering a transfer in excess of its externality, which is a losing proposition. Finally, it is also clear that any lower offer by country 1 would be bettered by country 2.

Therefore, subsidies ensure that FDI localizes where it is most productive. This efficiency result may or may not translate into welfare gains for each individual participant, an issue which is not analyzed in this proposition. Nevertheless, an important corollary of this proposition is that within a symmetric set of countries in which all of them are both source and hosts of FDI in such a way that net subsidies are null in each individual country, this full efficiency result also means maximum welfare for each one.

**PROPOSITION 3. THE WINNING HOST COUNTRY CAPTURES A NET BENEFIT NOT LARGER THAN ITS EXCESS OF SOCIAL RETURN ( $S_1-S_2$ ).**

**COROLLARY: IF HOST COUNTRIES HAVE THE SAME SOCIAL RETURN, UNRESTRICTED SUBSIDIES LEAD TO INVESTORS APPROPRIATING THE FULL COMMON SOCIAL RETURN LEAVING NO NET BENEFIT FROM FDI TO COUNTRIES.**

**PROOF.** From Proposition 2, without loss of generality, winning host country 1 provides a transfer  $t^*_1= \text{Max}(r-p_1, s_2-p_1)$ . Its net benefit is therefore  $e_1- t^*_1=\text{Min}(s_1-r, s_1-s_2)$ , so that with effective competition from country 2 ( $s_2 \geq r$ ) the net benefit to country 1 only amounts to the excess of social return over country 2. At the same time, the investor obtains an overall return of  $\text{Max}(r, s_2)$ , so that, to the extent that there is effective competition, it gets the full amount of the social return in the losing country, a positive profit. Therefore if both countries have the same social return ( $s_1=s_2=s \geq r$ ), then the net benefit of the winning country is null and the investor appropriates the entire common social return  $s$  ( $p_1+ t^*_1=s$ ).

### *C. Should subsidies for FDI be banned?*

If subsidy competition to attract FDI leads to bidding wars to the benefit of foreign investors, it may be expected that a ban on subsidies, if enforceable, would work to the advantage of host countries. In this section we ask ourselves what would be the efficiency and distributional implications of such a ban, in particular concerning the welfare of host countries. To simplify the analysis, like in the previous section we consider a world in which the North (the source of FDI) considers whether to locate in the South, and if so, in which of the two Southern countries, 1 and 2. It is clear that any restriction to subsidies by



**PROPOSITION 5. AN AGREEMENT ON COMMON SUBSIDIES ACROSS COUNTRIES IS BETTER FOR HOST COUNTRIES THAN BOTH UNRESTRICTED COMPETITION AND A BAN ON SUBSIDIES.**

**PROOF.** The weak dominance of an agreement subject to non discrimination across countries is easily established by showing that it can always replicate the outcome obtained under both unrestricted competition and a ban on subsidies. First, a ban on subsidies is a particular case of a common subsidy agreement in which the subsidy is set equal to 0. Second, an agreement stipulating subsidy ceilings at very high levels, beyond those obtaining under unrestricted competition, would not be binding and therefore would allow unfettered competition.

However, dominance is strong. It suffices to show that in the absence of reswitching, from the previous Corollary we know that the first best is achieved setting a subsidy ceiling equal to the subsidy that country 1 would set in the absence of competition from country 2, along the lines of Proposition 1 for non-traded goods. In this region there is a strict improvement upon both alternatives.

### **III. Summary and conclusions**

In this paper, we have examined the consequences of competition among host countries to attract foreign direct investment, as well as the convenience of limiting this competition in different ways. Unfettered competition in subsidies achieves the efficient allocation of investment projects, but under some conditions may cause harm to the host countries, as the foreign firms may end up appropriating most of the net benefits of foreign direct investment.

The first policy measure we considered was a ban on subsidies. Eliminating subsidies reduces the welfare of the world as a whole, since the efficient allocation of investment projects is no longer achieved. As in the classic contributions of Viner (1950) to the theory of customs unions, there are two different effects of banning competition: FDI destruction (or negative FDI creation) and FDI diversion. By FDI destruction we refer to the case of investment projects for which the social return (but not the private return) exceeds the interest rate, which will not be implemented. By FDI diversion we refer to the case of investments that will be allocated to "the wrong country", one that does not have the highest social rate of return. In contrast to the case of customs unions, however, in the case of FDI both effects, destruction and diversion, go in the same direction. This means that, abstracting from distributional considerations, from the perspective of the welfare of the world it would make no sense to ban subsidies for FDI

Whether such a measure makes sense for the host countries is ambiguous. If the host countries are identical, the foreign firm appropriates all the net benefits under unrestricted competition, and the ban is convenient provided there is some investment which generates positive externalities that takes place. More generally, the convenience of a ban for the host countries will depend negatively on the difference in social returns among the host countries, and positively on the number of projects for which private returns exceed the interest rate, as well as on the size of the externalities associated with those projects in the countries with the highest private returns.

Regardless of the merits of a ban for the host countries *vis a vis* unfettered subsidy competition, it is possible for host countries to do better by delegating the authority to set the transfer schedule (or more precisely, a ceiling on transfers for each project) to a supra national government. In the case in which the country with the highest social rate of return for each project is also the one with the highest private rate of return for that project (i.e. the case of non reswitching), the supra-national authority would set a ceiling on subsidies equivalent to the subsidies chosen by a country in the case of non-traded goods, i.e, transfers which cover the difference between the interest rate and the private returns, without exceeding the size of the externality. This policy achieves the efficient allocation of investment and at the same time maximizes

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**SMALL ECONOMIES' TARIFF AND SUBSIDY POLICIES  
IN THE FACE OF TRADE LIBERALISATION IN THE AMERICAS**

By

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## Summary

The purpose of this paper is to examine from a macroeconomic perspective some of the fiscal issues which may arise from trade liberalisation in the smaller economies of Latin America and the Caribbean (LAC). The economic reforms implemented throughout the region invariably include programmes generally designed to lower tariff rates. They have important implications for the fiscal accounts of the smaller economies, traditionally more dependent on this type of revenue. The net result on government income remains an empirical question that depends on several parameters, such as price and income elasticity of the demand for imported goods, real income effects of trade liberalisation or exchange rate regimes.

Export revenues have to match the larger inflow of imports to allow a sustainable insertion into the international economy. Most smaller economies found themselves at a disadvantage when competing on international markets against their larger neighbours. Those that were successful in diversifying their non-traditional exports did so on the basis of active export promotion policies that included a sizeable component of tax subsidies and public investment.

Thus, competing in the global economy has a non-trivial impact on the fiscal balance of the small developing countries in the region. Reforming tax and export promotion policies is particularly difficult in these economies, for reasons directly linked to their small size and the fragile situation of their public finance.

Dependence on trade tax shown by most smaller economies is not only the result of historical conditions, but has practical reasons based on relative costs of tax administration. The technical complexity of implementing more neutral instruments such as value added taxes, or more equitable ones such as direct income tax, might be an obstacle for those smaller economies which cannot count on a large and well-trained public administration. Less selective export promotion policies are perhaps a better option from a theoretical perspective, but they are also more costly in the short term and their implementation is constrained by liquidity restrictions. However, looking at the future of regional and international integration, these reforms are inevitable for both legal and economic reasons. The time required and the costs of changing the present tax and incentive structure will be considerable for those countries and they should be able to count on the co-operation from their larger partners.

The first part deals with the fiscal implications of trade tax reforms on the smaller LAC economies. Following ECLAC (2000), smaller countries are defined as those with a population of 10 million or less at the beginning of the 1990s. The second part explores some of the issues linked with export diversification policies. A third section presents the conclusions of these two sections.

### **I. Trade reforms: Fiscal considerations and potential implications**

The process of trade liberalisation (including the reduction of tariffs, the tariffication of quotas and other trade restrictive measures, the elimination of licensing requirements, exemptions and preferences) has significant budgetary implications. These budgetary considerations may, at the same time, greatly influence the process and outcome of liberalisation. This is especially true for small economies which, as we shall see, rely heavily on international trade taxes for revenue generation and whose trade regimes may still include many exemptions, preferences and trade restrictive measures, such as quotas and licensing requirements.



revenues. All of these are relatively small economies, except for Colombia.<sup>3</sup> These small economies also have high trade exposure and are highly dependent on imports (worth around 60% of GDP). A second group of vulnerable economies with either large deficits and moderate dependency levels or moderate deficits and high dependency levels also include mostly small Caribbean economies except for Ecuador and Venezuela<sup>4</sup>. On the other extreme is Trinidad & Tobago, an oil-producing country, which has high trade exposure but has managed to have a diversified tax structure with increasing revenues and stable expenditures throughout the nineties.

**Table 4. Latin America and the Caribbean: Fiscal balance and dependency on trade taxes  
(1995-1999 averages)**

DEPENDENCY ON TRADE REVENUES	SURPLUS OR LOW DEFICIT	MODERATE DEFICIT	LARGE DEFICIT
LOW	Trinidad & Tobago	El Salvador Mexico	Bolivia Brazil Costa Rica Uruguay
MODERATE	Chile	Argentina Barbados Guatemala Panama Paraguay Peru	Ecuador Guyana
HIGH	Dominican Republic	Netherlands Antilles St. Kitts & Nevis St. Lucia St. Vincent & the Grenadines Venezuela	Antigua & Barbuda Bahamas Belize Colombia Dominica Grenada Haiti Honduras Nicaragua Jamaica

Note: Deficit levels are strictly for comparison purposes and do not necessarily imply fiscal fragility. These were determined by the average deficits during the period between 1995 and 1999. Countries at the upper end of the sample had average deficits of over 2% of GDP (and/or have had volatile changes in their deficits), a middle group had deficits between 1 and 2% of GDP and another group had surpluses or deficits of less than 1%.

<sup>3</sup> Although Colombia's trade is quite liberalised, trade revenues are still very important to the public finances. In addition, large transfers to its local governments and provinces have kept its deficits high throughout the nineties.

<sup>4</sup> Venezuela is a borderline case where trade revenues are fairly important, but its fiscal vulnerability comes mostly from the volatility of its oil revenues.

The level of public debt is another important variable to consider when looking into the sustainability of alternative scenarios for reforms and the capacity of public sector to buffer transitory shocks arising from trade liberalisation. In the medium and long run however, because of their high external debt, balancing the fiscal budget in smaller economies would not be sufficient if the stock of public debt is not reduced. Countries such as Honduras, Jamaica and Nicaragua that face the double threat of high dependence on trade revenues and high deficits, have also large amounts of external debt (see table 4 again). The first two have had stocks of around 50% to 100% of GDP during the latter half of the nineties. While Nicaragua has had close to 300% of GDP of external debt. All three countries are above the regional average of about 50%. In terms of debt per capita, Jamaicans and Nicaraguans carry a burden of approximately USD1300, again higher than the regional average of about USD1100. While each Honduran would theoretically have an external debt of around USD 600.

### 3. *Some possible revenue implications of trade liberalisation*

The net impact of trade liberalisation on trade tax revenues is largely ambiguous, and depends on various factors. Trade liberalisation involves changes in the relative price structure and the removal of trade restrictions that usually increase the volume of imports. The ultimate impact of trade liberalisation on revenues will depend on the economic and trade structure of the countries, their policies and the behaviour of economic agents in response to the liberalisation process. These characteristics vary a great deal among the countries in the region and their numerical assessment is mainly an empirical question, requiring the use of country-specific macroeconomic simulation tools, such as general equilibrium models. Therefore, this section intends only to highlight some of the issues at hand.

The sequencing of the various aspects of trade liberalisation programmes and the timing of these programmes in relation to other complementary reform programmes such as tax reforms constitute some of the factors which determine the effects of trade liberalisation on the fiscal accounts. With regard to the trade programme itself, issues such as the elimination of exemptions, licensing requirements and quantitative restrictions or their tariffication before, after or at the same time as the reduction in tariffs are important considerations which have varying effects on the fiscal accounts. In addition, the volume effect of an increase in imports due to trade liberalisation may (and usually do) have a positive effect on revenues and compensate for the loss brought by the price effect of a lower tariff.

Case studies show both positive and negative effects on revenues, the net balance being difficult to forecast.<sup>5</sup> The reduction or elimination of tariffs on imports usually decreases revenues derived from international trade taxes. On the other hand, administrative considerations are also important in determining the final outcome of the tariff reduction, especially when it is accompanied by a more general fiscal reform.

Tariff exemptions, specially reduced tariffs and other trade discretionary measures (some of them directly related to export promotion policies, see part II) tend to have significant negative effects on the collection rate. Estimates of exemptions resulting in collection rates being 50 per cent lower than potential revenue are not uncommon.<sup>6</sup> The elimination of these exemptions and preferential tariff rates could enhance revenues by widening the import tax base. The increase of revenues will be proportional to the pervasiveness of these preferences in the tax system. Reduction in prohibitively high tariffs whose

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<sup>5</sup> Pritchett and Sethi (1993) case study on three countries documents four facts: (1) there is almost no empirical relationship between the official tariffs and the collected taxes; (2) the higher the official tariff, the higher the variation of collected taxes; (3) the collected taxes increases much less than one-for-one with the official tariffs; and (4) above a certain level, collected rates do not increase at all despite increases in official tariffs.

<sup>6</sup> See IMF 1994

during the period under review, national authorities would have been tempted to increase the trade tax revenues when their fiscal situation was weak.

The results obtained pooling cross-section data over the 1981-1996 period confirmed the a priori expectations.

**Table 6 Econometric Analysis of Revenue Implications of Trade and Fiscal Reforms \***

Dependent Variable: Trade Tax Revenues relative to GDP (%)		
Explanatory Variables	Coefficient	t-Statistic
GDP growth rate (%)	-0.12	-4.38
Trade value (% of GDP) **	0.83	2.67
Trade reform index***	-1.23	-4.48
Fiscal reform index***	1.18	8.66
Previous fiscal balance	-0.03	-2.35
R2 (weighted)	0.98	
R2 (unweighted)	0.90	

Notes: \* Panel of 5 year average observations for 16 Latin American and Caribbean countries, 1981-1996. Regression used General Least Squares with fixed effects and cross section weights, totalling 48 observations.

\*\* Value of imports and exports relative to GDP, in logarithm.

\*\*\* Logarithm of the corresponding reform indexes at the beginning of each period, as published in Morley S. et al: Indexes of structural reform in Latin America, ECLAC January 1999.

All coefficients have the expected sign and are highly significant. Overall explanatory power of this simple model is very good, as shown by the R-squared, albeit further econometric testing is limited by the reduced number (3) of observations for each country.

Trade reforms, which usually include a reduction in average tariff on imported goods and services and an elimination of taxes on exports, reduce the government revenue per unit of traded goods and services. As mentioned earlier, this effect can be partially offset (or even totally, as it occurred in some countries) by the impact on the volume of trade, especially the increased demand for imported goods. Fiscal reforms, once the specific impact of trade reforms and other economic variables are discounted, tend to increase the trade tax revenues (e.g., by reducing evasion). For a given external tariff, better overall fiscal administration and procedures tend to increase trade tax revenues for given levels of trade and tariff.

It is also of interest to note that countries in the sample tended to rely more on trade taxes when the global fiscal situation in previous periods was negative. This tendency has been observed in several instances, when trade taxes were raised in order to compensate for negative fiscal results, reverting –at least temporarily– the previous advance in trade liberalisation (Chile, Bolivia).

#### **b. Average tariff and total trade revenues**

In this line of thought, other empirical studies suggest that there is a tariff rate that maximises trade tax revenues: above this ceiling, revenues are lost because of evasion and low demand for imports, below this level, revenues are lost because of the low tariff. A recent IMF study, conducted world-wide on a large set of developing countries, set this optimum at 20% (Ebrill 1999).

This 20% optimal rate found at international level is also above the present regional average, which means that further reduction could have in theory a negative impact on tax revenues in Latin

**Table 1 Total Tax Revenues (as a percentage of GDP)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>South America and Mexico</b>										
<b>Average</b>	9.9	10.6	11.3	11.8	12.3	12.2	12.0	13.0	13.4	13.4
Argentina	12.4	14.2	16.5	17.9	17.7	17.3	16.0	17.3	17.6	17.6
Bolivia	8.2	8.7	10.7	11.4	12.4	12.4	12.3	14.5	16.3	18.1
Brazil	10.2	10.0	9.4	10.6	13.2	12.6	11.8	12.6	14.5	15.0
Chile	14.5	16.7	17.3	18.0	17.5	17.0	18.2	17.6	17.8	16.9
Colombia	9.3	10.7	11.2	11.6	11.8	11.4	11.5	12.2	10.5	10.8
Ecuador	7.6	7.6	7.2	7.4	7.7	8.0	7.2	9.3	9.9	9.8
Mexico	11.5	12.0	12.4	11.4	11.3	9.2	9.0	9.8	10.5	11.2
Paraguay	9.5	9.4	9.3	9.4	10.7	12.2	11.5	11.8	11.6	10.8
Peru	7.7	8.9	10.0	10.1	11.2	11.6	12.1	12.1	12.1	11.4
Uruguay	14.4	14.3	14.9	14.7	13.1	14.6	14.9	15.8	16.1	15.4
Venezuela	3.7	4.4	5.5	7.2	8.7	8.2	7.9	9.8	10.3	10.3
<b>Central America and Latin Caribbean (Dominican Republic and Haiti)</b>										
<b>Average</b>	11.1	11.8	12.1	12.0	11.4	12.7	12.6	13.3	13.7	13.7
Costa Rica	14.0	11.4	12.0	12.1	11.7	12.5	12.7	12.6	12.8	12.5
Dominican Republic	10.5	11.8	13.8	14.8	14.0	13.8	13.1	14.7	15.0	14.4
El Salvador	9.1	9.5	9.6	10.3	10.9	12.0	11.3	11.1	10.3	10.5
Guatemala	6.8	7.3	8.2	7.8	6.7	8.0	8.8	9.4	9.6	10.0
Haiti	8.7	9.5	6.1	5.5	2.6	6.4	7.5	9.2	8.9	9.1
Honduras	14.1	14.5	15.4	14.8	14.3	15.7	14.4	14.1	17.0	17.7
Nicaragua	13.5	17.7	19.2	18.7	19.3	20.6	20.7	23.0	24.1	23.0
Panama	11.7	12.5	12.5	12.1	11.8	12.5	12.1	12.5	12.1	12.6
<b>Non-Latin Caribbean</b>										
<b>Average</b>	20.9	20.9	21.4	21.9	20.8	21.1	21.2	21.3	21.6	...
Antigua & Barbuda	17.3	17.0	17.1	17.1	17.5	17.8	18.5	17.9	17.5	...
Aruba	16.6	18.2	18.5	19.4	18.5	18.2	17.9	16.9	17.4	...
Bahamas	14.2	14.3	15.3	14.7	16.5	16.7	16.5	16.7	16.5	...
Barbados	25.3	26.9	26.0	27.9	27.0	27.8	27.7	30.7	30.0	...
Belize	21.5	21.8	20.8	20.9	20.6	20.6	19.4	19.8	19.3	...
Dominica	24.7	24.3	24.5	23.2	22.0	23.3	23.5	23.4	23.8	...
Grenada	21.9	21.5	21.9	23.1	21.8	22.6	22.7	21.9	22.2	...
Guyana	28.8	25.7	35.9	35.7	29.8	31.4	32.3	29.6	28.6	...
Jamaica	23.8	22.9	22.7	25.4	24.9	26.1	24.8	24.5	26.3	...
Netherlands Antilles	6.5	6.8	7.0	7.6	7.8	7.6	8.6	10.1	10.3	...
St. Kitts & Nevis	19.9	19.3	19.5	21.2	21.1	21.3	21.5	22.2	22.7	...
St. Lucia	22.3	23.0	23.3	23.0	22.2	21.8	21.4	21.6	22.0	...
St. Vincent & the Grenadines	25.3	24.1	22.5	22.8	23.9	23.2	24.3	24.3	24.6	...
Trinidad & Tobago	24.6	27.5	24.6	25.7	17.6	17.5	17.7	18.4	21.2	...

Source: ECLAC based on official national data.

Note: Tax revenues vary among the countries but they generally include taxes on income and profits, taxes on property, taxes on domestic goods and services and taxes on international trade

**Table 3 Trade Tax Revenues (as a percentage of total tax revenues)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>South America and Mexico</b>										
<b>Average</b>	<b>19.8</b>	<b>16.9</b>	<b>15.4</b>	<b>14.3</b>	<b>13.6</b>	<b>13.9</b>	<b>12.5</b>	<b>12.7</b>	<b>13.6</b>	<b>11.6</b>
Argentina	12.1	5.9	5.9	6.2	6.3	4.6	4.9	5.7	5.1	4.5
Bolivia	16.6	13.0	12.1	11.5	11.5	11.5	10.6	9.7	9.4	8.3
Brazil	...	0.0	5.0	4.2	3.9	6.0	4.6	4.7	5.0	5.2
Chile	16.6	13.8	12.7	12.2	11.4	12.4	12.1	10.8	10.1	9.5
Colombia	26.0	26.0	21.3	26.1	26.8	27.5	24.5	24.7	26.7	20.4
Ecuador	31.6	28.2	24.0	22.9	23.8	23.0	19.3	24.5	31.6	25.6
Mexico	8.4	10.1	10.6	9.3	8.2	6.7	6.6	5.8	5.3	5.3
Paraguay	25.4	22.9	18.3	18.4	18.2	22.9	19.4	19.6	19.3	14.9
Peru	10.4	10.0	10.6	12.4	12.4	13.2	12.2	10.9	11.1	10.9
Uruguay	15.3	13.4	11.2	8.0	8.2	6.8	6.4	6.7	6.8	6.1
Venezuela	35.6	42.2	37.2	25.9	18.9	18.2	17.1	16.5	19.2	16.8
<b>Central America and Latin Caribbean (Dominican Republic and Haiti)</b>										
<b>Average</b>	<b>26.4</b>	<b>25.2</b>	<b>24.7</b>	<b>24.7</b>	<b>23.7</b>	<b>26.1</b>	<b>24.0</b>	<b>24.1</b>	<b>24.0</b>	<b>23.3</b>
Costa Rica	28.2	30.2	25.1	23.3	22.4	51.8	46.5	46.0	47.6	43.2
Dominican Republic	38.7	34.0	41.0	37.1	31.5	29.1	28.9	28.6	28.6	31.3
El Salvador	21.6	21.3	18.2	19.3	19.4	17.4	14.0	11.8	11.9	11.4
Guatemala	22.5	19.2	25.4	22.7	23.6	23.6	17.5	15.0	14.5	13.6
Haiti	18.9	21.0	16.1	16.4	13.1	19.0	15.6	21.8	21.0	21.5
Honduras	38.0	36.8	31.8	29.5	29.7	25.9	26.5	24.9	17.7	14.7
Nicaragua	21.5	20.3	20.3	21.5	21.7	23.2	22.6	24.1	28.0	31.2
Panama	22.0	19.1	19.7	28.1	28.5	19.1	20.3	20.2	22.8	19.8
<b>Non- Latin Caribbean Countries</b>										
<b>Average</b>	<b>42.4</b>	<b>40.5</b>	<b>39.6</b>	<b>40.6</b>	<b>41.1</b>	<b>40.8</b>	<b>39.5</b>	<b>36.6</b>	<b>36.5</b>	<b>...</b>
Antigua & Barbuda	30.8	29.6	28.9	28.2	29.6	29.9	31.1	31.0	30.7	...
Bahamas	62.0	66.4	66.0	64.6	67.9	67.1	65.5	66.5	66.1	...
Barbados	13.0	9.3	8.1	7.9	17.9	17.0	14.2	10.2	10.4	...
Belize	62.3	61.5	61.1	56.9	56.3	56.3	58.8	33.8	36.8	...
Dominica	57.9	54.7	55.1	55.6	56.4	54.1	53.2	54.3	53.8	...
Grenada	75.8	62.8	58.9	57.1	56.4	53.5	60.4	63.9	64.4	...
Guyana	16.3	16.3	12.5	16.0	15.4	15.0	14.6	13.9	14.3	...
Jamaica	21.0	23.1	24.7	28.3	26.1	30.7	29.0	29.8	30.0	...
Netherlands Antilles	49.7	47.9	46.7	56.7	55.0	56.8	43.5	27.6	28.9	...
St. Kitts & Nevis	64.8	62.7	62.1	64.2	61.6	59.2	54.4	53.9	49.7	...
St. Lucia	62.8	56.1	50.2	51.7	53.1	55.0	54.2	56.0	53.6	...
St. Vincent & the Grenadines	25.6	27.4	30.7	30.3	26.8	27.1	26.3	25.9	25.6	...
Trinidad & Tobago	8.9	9.1	10.2	10.9	11.9	9.1	8.5	9.2	9.9	...

Source: ECLAC, based on official national data.

the smaller economies of the region which are either islands (the Caribbean) or land-locked (Bolivia, Paraguay). The higher "unit" cost of public goods or the sub-optimal level of infrastructure found in small economies because the non-divisibility of most public infrastructure can also be classified under this item.<sup>12</sup>

Economies of scale explain most of the stylised facts of the new developments of trade among developed countries (intra-firm trade) but also among Latin American countries. As stated by Devlin and French Davis (1999), regional integration builds on strategic considerations arising from imperfect and incomplete markets. For many non-traditional Latin American products, the access to markets is more limited and unstable, making economies of scale, the emergence of externalities of location and agglomeration and specialisation more difficult to achieve.

Empirical evidences at international level world tend to confirm that smaller developing countries have an initial disadvantage. Cross-country regressions using world-wide data show that large developing countries do have a much higher per capita income than small developing ones (if one exclude very small countries from the later group). The same patterns may be found when analysing growth rates, indicating that being a small developing country (albeit not a very small one) involves probably some disadvantage. This handicap is conditional to development level, and no such difference exists among the three groups of large, small and very small countries when running cross-country regression for developed economies (Salvatore 1997).

Correcting initial market imperfections in smaller developing economies call usually for public interventions. There is indeed a long tradition of trade subsidies in the LAC region to protect infant industries. While the cause for import-substitution related subsidies has not survived the criticism of economists on the basis of welfare enhancement, efficiency and sustainable growth, there is still a strong demand for actively promoting export interests. It should be noted that in the Hemisphere, this trend is not only present in the small developing economies but may be found in the large semi-industrialised Latin American countries and in the industrialised part of North America.<sup>13</sup>

## ***2. Trends in export diversification policies***

Although policies aiming a promoting new exports need not be restricted to public sector, the small size of the private firms in small economies means that most of them are undertaken with the participation of the state. In consequence, they usually do represent a cost to the public budget, either direct through an increase in current or capital expenses, or indirect (in the form of lost actual or future income, or increased liabilities).

### **a. Upgrading the productivity of domestic firms**

Albeit the case of subsidies for export promotion is stronger than that for import substitution, academic economists are usually critical of export subsidies on the basis of welfare maximisation

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<sup>12</sup> See for a review of these specific costs and vulnerabilities, the chapter 11 of ECLAC (2000), and Escaith and Pérez (1999)

<sup>13</sup> In the USA, the income tax benefits provided to exporters is equivalent to 1% ad valorem subsidy of total export, according to Desai and Hines (2000). This 1% subsidy represents a much higher share of the profits made on exports, and proved particularly important to promote export activities among small firms.

Unfortunately, the state of the public finance of most small developing countries in the region and the urgency of other expenses did not allow for a comprehensive balanced strategy. A way of focusing the limited financial resources of the public sector was to concentrate the funds on specific investments, most directly linked with export activities: ports, export processing zones (EPZ) or the development of clusters.

#### **b. Neutralising the existing anti-export bias and levelling the playing field**

This objective is among the first one presented to defend and justify export promotion policies. The anti-export bias is still present in many LAC countries, especially in the smaller ones where tariffs are on average higher and more dispersed. Some correcting measures, such as streamlining formalities, reforming custom administration and reducing red tape, do not entail a financial cost for the state. In large semi-industrialised LAC countries, removing these obstacles and correcting the macroeconomic prices (especially the real exchange rate) were very effective in promoting non-traditional exports.<sup>15</sup>

Nevertheless, we saw that in the specific context of small economies, the anti-export bias argument should include also the specific costs facing domestic firms producing tradable goods and services, most of them associated with the existence of externalities and economies of scale. Providing (pioneer) companies in small economies with public assistance that enables them to start their operations allow them to reach production levels compatible with economies of scale. As recognised by Tanzi and Zee (2000), "a conceptually legitimate purpose for granting tax incentives is to rectify some forms of market failure, most notably those involving externalities" (p. 25).

Most subsidies in LAC small economies take the form of tax holidays, not only exempting capital and intermediate goods used to produce exports from tariffs but also extending profits from direct taxation. Typically, these privileges are granted only to firms operating in certain areas (export processing zones) where it is easier to control that the exempted purchases are not diverted to the domestic market. But there are numerous exceptions to this rule, and firms may benefit from the "maquiladora" regime without being physically located in the processing zones (El Salvador). In-bound firms are also exempted from direct taxes, and this subsidy is also extended to other type of export diversification, in particular to encourage investment in international hotels in Central America and the Caribbean.

A special case is the promotion of the export of services through off-shore financial services. As other EPZ, their operations are exempt of taxes.<sup>16</sup> In many small countries –principally Caribbean– they benefit also from "stream-lined" legal and prudential supervision. This activity is now under severe vigilance from OECD countries, for reason of tax evasion and money laundering.

### **3. Selected country experiences**

The smaller economies' experience in increasing their level of export and developing a more diversified export base has been quite diverse (see table 7). The existence of preferential access to a large country' s domestic market (on the basis of close geographical proximity and/or special treatment) is one of the factor that may explain the differences. Domestic policies, and in particular export promotion, are another explicatory factor.

<sup>15</sup> According to Nogues (1989) in the 1980s Mexico diversified more effectively its exports by simply removing the bias against exports, without subsidising them, than did Brazil in the 1970s, relying on subsidies.

<sup>16</sup> Even a country like Chile had eventually to use tax subsidies to promote this type of operations, extending in 2000 tax exemptions on capital gains to non-residents.

competing on lower salaries and more generous subsidies.<sup>18</sup> Maquiladoras represent now 25% of formal industrial employment in Central America. Costa Rica was nonetheless able to maintain its advantage when it up-graded into high value added maquiladora with Intel investing 500 million dollars to develop high technology activities in EPZ. The exports from EPZ jumped from 891 millions dollars in 1997 to 3 567 millions in 1999, contributing 54% of the total exports of goods.

Haiti was in fact the pioneer in basing its industrial strategy on export processing zone, and created in 1971 a quite successful EPZ for assembly plants. Nevertheless, the adverse political situation that has affected this country led to the gradual disappearance of these industries. It is now the neighbouring Dominican Republic that represent in the Caribbean context the most successful example of adaptive transition into the international economy through export diversification. Exports from the EPZ grow at a yearly average of 38% between 1986 and 1989, 35% between 1990 and 1994, only to slow down at a healthy 10% between 1995 and 1999 (CEPAL, 2000). 200 000 people worked in the free zones in 1999, and the national value added to these exports (salaries, services and other inputs) represent 20% of the total.

Other success story of this Caribbean country is the development of its tourism industry, which in 1999 generated income for more than 2.5 billions of US dollars, against 820 millions in 1990 and 450 in 1985. This was made possible by huge investments in tourism infrastructure. Hotel capacity increased by 120% in the second half of the 1980s, between 1986 and 1990, and registered an healthy 160% growth during the 1990s.

The diversification into new export activities was helped by generous fiscal incentives, tax holidays (10-year holiday for the payment of corporate income tax, exemption of duties, tax credit for 15% of non-traditional exports), and financial subsidies to build the necessary infrastructure (hotels in particular, but also roads and others). Two of these funds (FIDE and INFATUR) represented a value of 1.1% of GDP in 1986. Thanks to the existence of multiple exchange rate, export activities in the Dominican Republic benefited also from a quasi fiscal subsidy, buying inputs at the official exchange rate but selling the proceedings at the extra-official one.

The export promotion programmes implemented in Central America and the Caribbean during the last two decades were closely related to the preferential treatment these countries received in the US sponsored CBI.<sup>19</sup> This preferential access (which amounted to an export subsidy, but financed by the importing country<sup>20</sup>) was instrumental in promoting export diversification in those countries that were able to seize the opportunities. As illustrated by the table 8, market shares gained with this preferential treatment have been eroded by the signature in 1993 of the NAFTA. According to the organisation representing EPZ in the Dominican Republic, it represented a 14% loss in potential exports for the year 2000 (CEPAL, 2000). The preference was partially up-graded in October 2000, reducing –with some restrictions– the gap between the preferential treatment offered on the US market for CBI and NAFTA imports. Nevertheless, the extension of the tariff exemption has a time limit, up to September 2008 or the signature of the Free Trade Agreement for the Americas (FTAA), scheduled for 2005.

<sup>18</sup> CEPAL (1999) signals that, as in the 1970s, Central American countries are once again immersed into an inefficient competition to attract foreign investment, where the generosity of the tax subsidies contrast with the precarious situation of the public finances.

<sup>19</sup> Caribbean countries received also preferential "ACP" treatment from the European community, under the successive Lomé agreements. Nevertheless, these mainly benefited their traditional (especially banana, but also sugar and rum) exports under the special protocols. These agreements have been recently renegotiated to follow the guidelines of the WTO, but the banana regime remains an object of conflict with the USA.

<sup>20</sup> Albeit the programme allowed the US textile industry to find a market for their products which were previously displaced by imports of Asian garments made of non-US inputs. See Gereffi (2000).



### ***BOX 2 The special case of subsidising agriculture***

With a few exceptions, most economic reforms in the agricultural sector were implemented during the second half of the 1980s or later, coincidental with (albeit without obvious causal relationship, because the trend occurred in an unfavourable national and international environment) a contraction in agricultural GDP and rapid recovery of agricultural exports.

The opening of the national markets linked to the structural reform process or the signature of regional trade agreements shackled the domestic price structure and put some domestic producers in difficulties (maize in Mexico vs. US production, soy in Colombia vs. the Bolivian production). Caribbean countries present a specific case where one of the consequences of the Uruguay Round Agreements is the reduction and dismantlement of the preferential access to the European market their traditional banana producers were granted under the Lomé agreements.

Adjusting production to the new market signals is always a challenge for private industrial enterprises, but it is even more difficult in agriculture, due to the heterogeneity of the sector. Traditional farmers in particular face serious challenges when trying to diversify into non traditional products due to the lack of capitalisation, the unavailability of funds, inadequacy of production technologies or weaknesses in the processing, transport and marketing services. An additional argument for protecting domestic agriculture is that agricultural exports are heavily subsidised by the more developed trading partners, thus domestic producers cannot compete at the artificially low international price. However, Panagariya (2000) maintains that in this case, subsidising exports to neutralise the effect of this subsidy would be a loser strategy for the smaller country.

Agriculture is a sector where state initiative definitely crowds-in private investment. The sectoral data review in Spoor (2000) suggest that there were several instances in which public intervention in "market led" reforms have paid off. In the region, Chile is the archetype of successful diversification of agricultural exports, including forestry and fisheries. In this country, state initiatives were fundamental to assist in the deployment of private initiatives in fruit and tomatoes production, salmons and forestry, all directed towards the export market (CEPAL, 1997). Same thing occurred in Colombia for cotton, palm, sugar and coffee, the extension of the production frontier in Brazil or the development of non traditional agricultural exports in Costa Rica. What is more, there are indications from the above mentioned sectoral review that the early optimism regarding small farmers and peasants options for modernising through market-led spontaneous commercial contracts with agribusiness seems to be largely unfounded. After two decades of adjustment, the wave of second generation of reforms is likely to place a renewed emphasis on the role of public intervention in agricultural development.

### **III. Conclusions**

This section presents the conclusions on the future of the smaller LAC countries' trade tax and export diversification policies in the perspective of increasing trade liberalisation.

#### **1 Trade taxes**

The smaller economies in the region with a high level of dependency on trade revenues and a fragile fiscal situation are most vulnerable to the possible negative effects of eminent tariff reforms. From a macroeconomic point of view, the best alternative is to reform the tax system, to increase domestic taxes even when the trade tax revenues are not expected, at least in the short run, to be negatively affected by trade liberalisation. Moreover, a sounder fiscal base would improve long term growth prospects, while

easier and more common in the medium term with an increasing number of labourers eventually moving to lower tax countries.

Furthermore, regional pressure to work towards balanced budgets from both external (international financial institutions, macroeconomic convergence or eligibility criteria) and domestic sources (fiscal discipline laws) make it imperative and urgent that governments have more robust revenues since expenditure needs are also on the rise (social and infrastructure needs).

## 2 Export promotion

Like the other LAC countries, most of the smaller economies in the region went through a series of structural reforms from a phase of import substitution to market oriented economy. Yet, stylised facts from the successful stories of export diversification during the last two decades point to the active role of government export promotion programmes and fiscal subsidies in setting the necessary conditions for a dynamic and diversified export-led economy.

The shortcomings of a pure market (*laissez-faire*) approach to guaranty their successful reinsertion into the global economy may be linked to the incomplete market structure of these small economies, the small size of the domestic industrial base in these countries and the higher marginal production cost inherent to the low scale of production. They made it almost mandatory to use active export promotion programmes, including fiscal subsidies, to diversify the export base.

First best export promotion public sector policies are believed to be of the horizontal type, from providing an adequate level of infrastructure, reducing bureaucratic red-tape, co-operating in research and development programmes or giving assistance for gathering information on market opportunities. Financial types of export "subsidies"<sup>23</sup> seem also to be gaining acceptance in recent years, in particular export-credit financing and insurance at international market rate.

Nevertheless, these unfocused horizontal policies may represent an important cost for the public finance of many small LAC countries while benefits are diffuse and uncertain. For much of the same reason that unit production costs are higher in small firms than in larger ones, the expenses for providing public goods such as infrastructure, consular services, trade negotiation expertise, are comparatively higher than in larger countries. Peres and Stumpo (2000), reviewing the behaviour of small and medium sized companies in the region, recognise that (even in large countries), public policies based on new efficient instruments had little impact on this segment of firms because lack of financial and human resources for implementation. Horizontal type of public programmes are also believed to be effective only in the longer run, while economic and political considerations in these small economies, heavily dependent on their foreign sector, call for faster responses.

The financial capacity of the public sector to undertake new programmes in small economies is also limited by their weaker financial situation. Non-discriminating approaches (e.g., through large scale investment in human and physical capital) have a cost that many public budget cannot afford. In contrast to large developing economies, shallow domestic financial markets and the small size of the private sector restrict the possibility of transferring part of the cost to the private sector through privatisation or concessions.

In this framework of liquidity restrictions, tax holidays and investment subsidies warranted to a specific group of exporters, despite all the risks in terms of rent seeking and time consistency, remains the best feasible option: direct costs in public infrastructure are focused and limited to certain areas (ports,

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<sup>23</sup> At rates that are competitive internationally, but not further subsidised in order to remain compatible with WTO rules.

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**SESION 5**

**E-GOBIERNO Y GOBERNABILIDAD:  
PERSPECTIVAS Y EXPERIENCIAS NACIONALES  
EN OPERACIONES DE TIPO G2G, G2P Y G2C  
(CON ENFASIS EN CONTEXTOS DE GOBIERNOS FEDERALES)**

**DIGITAL GOVERNMENT AND E-GOVERNANCE:  
PARTNERSHIPS, PEOPLE AND PROSPECTS**

By  
**Jeffrey Roy**

### Abstract

*The objective of this discussion paper is to examine the capacity of government to effectively harness information technology (IT) as an enabling force in order to meet the new challenges of a digital age. Yet, there is a considerable risk that effective adaptation and change may be blocked by an administrative culture ill suited for the new world of e-governance. In terms of how state organizations and democratic institutions respond, two sets of explanatory factors will be determinant. First, partnerships, and the emergence of new collaborative dialogues within government, between governments, and across sectors (such as industry and community) are a critical dimension. The second, and quite related variable lies in the necessary leadership of people: new skill sets, and new leaders will be required to both empower knowledge workers and defend experimental action. At the same time, it is not only the skills composition of workers altering in a digital era, but rather the broader transformations of both everyday and organizational life that. In this sense, digital government must reposition itself to become an engaged and constructive partner in shaping the new governance patterns emerging today. Government must produce a new "culture" in order to harness the enormous potential of being digital: technology alone is insufficient. The paper concludes with some preliminary propositions as to how governments might address these important challenges.*

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availability of a new digital infrastructure and the Internet's impacts on a changing set of public expectations are overtaking fiscal pressures as the primary impetus for public sector managerial reform.

Nonetheless, the deployment of IT both in and across public sector organizations is driven by a variety of factors, and it may face resistance. The main danger is that the necessary transformation in public sector governance and accountability is likely to be blocked by an administrative culture that may be ill suited for a digital world. Whereas nearly everything about the connected (or digital) state requires horizontal governance, government has relied upon a vertical architecture of power and decision-making.

While this quandary is recognized to some degree, the central task facing both policy-makers and political leaders, at least those interested in leading the transition to the digital age, lies in orchestrating effective responses.

## 2) Partnerships

The new digital architecture driving e-governance creates both pressures and opportunities for new partnerships - internally and externally. Within government, IT fosters new horizontal opportunities by shifting away from traditional bureaucratic structures toward alternative delivery arrangements. The growing possibilities for consultations with both stakeholders and the citizenry are also expanded with new technologies. Moreover, on-line delivery implies integrative channels within government, linking external users to a variety of sources and systems internally.

Organizationally, these trends mean IT forces are both dispersing and centralizing – fostering a need for integrative action. Put another way, these forces create tensions between vertical governance of traditional government and the horizontal governance implied by digital government. The emergence of digital government will therefore require actions and strategies at the level of individual departments and agencies: but such efforts must be orchestrated within the parameters of government-wide leadership and coordination.

Accountability is a key element of such a balance. The manner by which accountability is perceived and exercised by government leaders will determine the degree to which it embraces more collaborative models of governance. Traditionalists invoke the underlying principle of Ministerial Accountability based on a clear and rigid view of vertical control and risk-minimization in order to serve and protect the interests of the publicly accountable political leader.

The rise of e-governance, with its pressures for a variety of initiatives introducing alternative models of decision-making and service delivery, implies a sharing of accountability. The need for collaboration, partnerships and joint ventures grows -both within government, and often between private and public organizations.

There are also important debates around the issue of whether accountability is at risk when external partners become involved in the governing and shared delivery of government programs and services. According to some, new governance arrangements threaten to undermine key institutions and practices of democratic accountability [Globerman and Vining 1996]. This camp believes that any change to the existing system of ministerial accountability will damage the integrity of the system. There is some question as to whether the *ad hoc* nature of the ever-increasing number of partnership arrangements between sectors challenges accountability mechanisms or can be absorbed in traditional models of decision making with adaptations to risk mitigating strategies.

the San Diego County government is now six months into the largest municipal outsourcing experience. While these experiences are unique in scope, they present elements common to all governments, at all levels, as IT becomes a strategic imperative for effective governance. Such tensions have led to growing calls for partnerships in place of contracts. The differences may be subtle in terms of words, but the consequences of this contrast are far reaching. Poupart and Austin compare two modes of relationships:

*Partners respond to a need in a changing world by sharing control in the context of an assertive relationship to offer a future that facilitates innovation in a world of possibilities. Contractors respond to a request in a procurement world by giving up control in the context of a collaborative relationship to provide help, assistance, pairs of hands that facilitate project management in a world of deliverables [Jelich & al. 2000, p.52].*

Our claim is that the realization of digital government remains at odds with a traditional public sector apparatus firmly rooted in hierarchical traditions. The resulting challenge of shifting from incremental procurement reform to genuine collaboration lies in the need to rebalance purchasing safeguards with partnering opportunities. Equally important are the new skill sets of public managers and leadership requirements that result.

### 3) People

The digital era rises hand in hand with the knowledge workforce. Conceptually, Rifkin envisions growing ranks of knowledge workers who will forge new communities of interest - only some of which are likely to resemble traditional employee - employer relationships of the past. He argues that "people of the twenty-first century are as likely to perceive themselves as nodes embedded in networks of shared interests as they are to perceive themselves as autonomous agents in a Darwinian world of competitive survival" [Rifkin 2000, p.12].

How will public sector organizations deal with what Rifkin sees as a new human archetype where people are more autonomous, better educated, more mobile, and less rooted by traditions of place (either geographically or organizationally). These conceptual issues intimately link the workforce challenges of digital government with those of cultural reform (in an organizational sense). Whereas Westminster systems continue to emphasize vertical accountability, government on-line is (correctly) being pursued in a horizontal fashion.

An international study by Essex and Kusy [1999] underlines the views of executives from both government and industry, for whom an increasing reliance on the external workforce is a significant trend. They report that from 1997-2002, leaders are expecting an increase from 10 per cent to 25 per cent in non-core (meaning non-traditional full-time, or external) workers. This crescendo of the external workforce may well accelerate with the technology-induced pressures for organizational innovation and flexibility. The result is a complex mix of agendas and incentives that explains the growing emphasis on interpersonal skills such as negotiation, facilitation, and consultation.

These skills are forming the basis of "new public servant" - one who is much more collaborative and comfortable with technology, and the consequences of these shifts for human resource in management in government will be profound [Moritz and Roy 2000]. Thus, government is becoming both more fluid internally and more networked externally, as distributed governance models drive the move toward a flexible and modular workforce.



This form of control can be pursued either at the operational level of government, by managers over subordinates, or politically by leaders who, by reflex, look to IT to centralize and control both power and information. Such attempts, of course, will prove increasingly futile, and they can only weaken the public sector as its credibility and performance steadily erode.

In the second scenario, some change is accepted but incremental strategies are formulated to achieve it. The potential for this scenario lies with traditionalists, whose cautionary claims may be partially legitimized by making a case that government is not private enterprise; as such, e-governance, and promises of Internet speed may not be fully appropriate for serving the public interest.

The resulting caution in IT planning and an emphasis on contracting over partnerships in outsourcing arrangements are likely to limit government's capacity, with arguments for the preservation of clear public accountability used to justify inaction. The media may also contribute to the traditionalist's cause, as the British government discovered recently when it was (somewhat unfairly) profiled in CIO Magazine (cio.com) for alleged failures in its IT initiatives. An important lesson of the digital age is the interdependence of these first two scenarios: the more defensive, cautionary or manipulative a government appears, the more hostile the media reaction is likely to be, creating a vicious circle of paranoia and defensiveness.

The third scenario is perhaps uncomfortable given it carries risks. Yet, those public managers and political leaders who have it right are those who claim that the risk of inaction is greater than moving forward boldly. The key to this scenario is a fundamental renewal of administrative culture in order to better learn how to share accountability, to better coordinate activities in more flexible and more effective way, and to better empower public servants and their partners, allowing new solutions for come forward in a dispersed and open matter.

This latter point may well be the secret to the digital transformation – that is to say, nobody can claim to have a clear road map of public sector renewal in this scenario. Acceptance of this point, publicly as well as privately, will mark members of those espousing such change.

In terms of how governments respond, our two sets of explanatory factors will be determinant. First, partnerships, and the emergence of new collaborative dialogues within government, between governments, and across sectors are a critical dimension. The second, and quite related variable lies in the necessary leadership of people – new skill sets, and new leaders will be required to both empower knowledge workers and defend experimental action. This new leadership must also be political in order to engage the public in this new journey, challenging them to be constructive and raising the collective intelligence of all stakeholders, including the citizenry.

Which scenario will define our governments in the world of e-governance? The evidence presented here would place many governments in North America (i.e. federal and provincial/state) somewhere between the first and second scenario, with some important challenges requiring further action if the third path is to emerge. The current blockages surrounding IT procurement reform are indicative of an administrative culture blocking the acceptance of a new governance regime that would find a place for partners as well as contractors.

Similarly, after years of downsizing and adjustment, the process of public service renewal, and its necessary emphasis on more collaborative and digitized skill sets remains at an early stage. Filling the void that will be created by demographics is only one half of the task; the other, more complicated task is to retool existing public servants and effectively empower them to work in a more complex, fluid and virtual environment underpinned by IT and driven by information.

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**EL GOBIERNO EN LA ERA DIGITAL  
AVANCES EN EL CASO DE ARGENTINA**

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Las opiniones expresadas en este documento son de exclusiva  
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Organización.

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## I. Introducción

Las TIC, y más específicamente Internet, están provocando profundos cambios en la sociedad, y el Sector Público no ha quedado al margen de dicho impacto, siendo uno de los principales el surgimiento y adopción del *e-government*. Este nuevo escenario plantea la necesidad de una redefinición del rol del Estado en la sociedad de la información y el cuestionamiento de qué actividades debe encarar el sector público y cuáles no.

La adopción de las TIC para la prestación de servicios promete la posibilidad de obtener importantes beneficios potenciales en términos de eficiencia, mejora en la calidad de los servicios prestados e incrementos en la transparencia de la gestión pública. Sin embargo, el desarrollo exitoso del *e-government* y la materialización de los cuantiosos beneficios esperados, plantea la necesidad de sortear importantes barreras que podrían limitar su avance y adopción generalizada.

En el ámbito internacional se observan importantes avances en la utilización de Internet por parte de los gobiernos y los proyectos encarados muestran diferentes grados de desarrollo. El presente trabajo analiza la situación actual y las perspectivas del gobierno electrónico en Argentina a través de: i) una revisión de los principales proyectos relacionados, ii) un relevamiento del estado actual del portal principal de acceso del gobierno nacional y iii) del análisis de los principales determinantes de su desarrollo, estado actual de los mismos y su comparación con los observados para Brasil y Chile.

El presente trabajo se estructura en seis capítulos. El Capítulo II realiza una revisión teórica del impacto de las TIC en el Sector Público y del rol del gobierno en la nueva era digital. El Capítulo III analiza el surgimiento del *e-government*, sus principales beneficios y costos esperados y las barreras más importantes a su desarrollo. El Capítulo IV presenta el nivel de desarrollo actual del gobierno electrónico a través de un repaso de los avances realizados a nivel internacional (Sección A) y en el caso de Argentina (Sección B). El Capítulo V repasa los principales determinantes del desarrollo del *e-government* y la situación actual de los mismos en la Argentina -comparándolos con los de Brasil y Chile (Sección A)-, para luego describir las perspectivas de evolución (Sección B). Por último, se presentan las conclusiones en el Capítulo VI.

El gran dinamismo del tema tratado y el hecho que la mayoría de los proyectos están en su etapa de desarrollo ha dificultado evaluar objetivamente la situación actual y el grado de avances alcanzado, por lo que las consideraciones contenidas en el presente trabajo se refieren a un momento determinado del tiempo (Diciembre de 2000) y están sujetas a constantes y profundos cambios.

## II. El Gobierno y la revolución de las TIC.

El vertiginoso crecimiento de las TIC (Tecnologías de la Información y Comunicación) en el mundo está provocando profundos cambios en el sistema económico internacional, conduciendo al desarrollo de lo que ha dado en llamarse la *sociedad de la información, sociedad digital o sociedad del conocimiento*. En el campo de la economía, sus efectos se mencionan con el nombre genérico de *economía digital*.

El avance de las nuevas tecnologías genera cambios con impactos comparables al de las grandes innovaciones tecnológicas de la historia (The Economist, 2000 [b]).

El sector gobierno no se encuentra al margen y experimenta alteraciones en su funcionamiento, tanto en la forma en que presta sus servicios, cuanto a un replanteo de su rol tradicional en la sociedad. En versión vanguardista hay quien sostiene que "La Internet cambiará la naturaleza del gobierno y la estructura del estado" (Fountaine, 2000).

La actuación asignada al gobierno en la economía ha evolucionado a través del tiempo y el presente escenario que incorpora a las TIC le plantea nuevos desafíos e interrogantes, inexistentes hasta el presente.

- *government to government* (G2G), se refiere a la interacción entre los diferentes niveles y entre los diferentes organismos del gobierno.

El G2C propone cambios que en términos de expectativas pueden calificarse como radicales en la forma tradicional de relación entre el gobierno y los ciudadanos.

En este nivel del *e-government* son *objetivos centrales* lograr: i) una mejora en la calidad de los servicios prestados, ii) aumentos en la eficacia y eficiencia de la gestión gubernamental, y iii) un aumento de la participación ciudadana en el funcionamiento del sistema democrático.

Una derivación importante de la utilización de las TIC en la interacción del gobierno con los ciudadanos es el surgimiento de la llamada Democracia Electrónica (*e-democracy*). Este concepto se refiere a teorías que consideran a las computadoras y a las redes informáticas como una herramienta fundamental en el funcionamiento del sistema democrático y en la mayoría de las funciones del mismo, a saber: provisión de información, comunicación entre los distintos actores, proceso de toma de decisiones (deliberación y voto), entre otros.

Los objetivos fundamentales de la Democracia Electrónica son la *reducción del costo y el aumento del beneficio de participación de los ciudadanos en el proceso democrático*, y por esta vía un incremento de dicha participación.

Como principal campo de acción para los desarrollos de G2B se revela el proceso de compras y contrataciones del estado. Son diversas las ventajas que puede obtener el gobierno al realizar sus compras a través de Internet, dentro de las cuales se destacan dos principales:

- Logra aumentos de eficiencia mediante la concentración de las compras de las diferentes agencias en un solo sitio, reduciendo los tiempos y costos de transacción, disminuyendo los inventarios (orientación just-in-time) y aumentando el poder de negociación de los organismos - reduciendo los precios pagados-.

Esta forma de contratación aumenta la competencia entre los proveedores e incrementa la eficiencia con que opera el mercado, al disponerse de mayor información, más oportuna y de mejor calidad.

- Permite incrementar la transparencia del sistema de compras y contrataciones a través del flujo de información actualizado y detallado de cada una de las etapas de este proceso. Este escenario reduce la posibilidad de malas prácticas e incentiva la accountability (responsabilidad del agente público de rendir cuentas de su accionar).

El G2G posibilita la conformación de un aspecto básico que es el disparador de, quizás, formidables beneficios potenciales, cual es la centralización y unificación de la información en bases de datos comunes de acceso conjunto que eviten duplicaciones y que aumenten la eficiencia en el uso de dicha información. Desde el punto de vista del federalismo fiscal, estos sistemas de información podrían ayudar a mejorar la capacidad teórica de recaudación de las jurisdicciones menos favorecidas y a reducir los niveles de evasión y elusión fiscal a través de convenios interjurisdiccionales.

Por otro lado, la adopción del G2G dependerá fuertemente del éxito del G2C, ya que, según el nivel de demanda de los ciudadanos, los portales deberán ser más funcionales y consiguientemente requerirán una mayor integración y cooperación entre los organismos.

Actualmente, a nivel federal en los Estados Unidos, el 74,6% de los servicios prestados a través de Internet se orientan a los ciudadanos (G2C), el 19,2% a compras gubernamentales (G2B) y el 6,2% a operaciones intergubernamentales (G2G).

## C. Los beneficios y costos esperados

### 1. Los beneficios

El surgimiento e implementación del *e-government* son recientes y aún se encuentran en sus primeras etapas de desarrollo en la mayoría de los países del mundo, aún en los más desarrollados, circunstancia que explica la escasa elaboración de análisis cuantitativos del tipo costo/beneficio.

#### 1.1. Experiencias relevantes

La observación internacional muestra numerosas experiencias aisladas acerca de los ahorros en ciertos servicios específicos derivados de su implementación on-line, las cuales, aunque parciales e incompletas, sirven como indicadores de los beneficios potenciales.

- El Gobierno de Chile a partir de Octubre de 1999 puso en funcionamiento el Sistema Electrónico de Compras y Contrataciones del sector público<sup>4</sup>. *Los beneficios derivados del sistema se estiman en aproximadamente US\$ 200 millones anuales*, provenientes principalmente de la disminución de precios y del uso de la tarjeta de compras para la transferencia electrónica de fondos (Comisión Presidencial de Nuevas Tecnologías de Información y Comunicación, 1999).
- De acuerdo a estimaciones en base a información proporcionada por la Secretaría de Comercio Electrónico de EE.UU., *el pago de facturas on-line es entre un 67,2% y un 95,6% más eficiente que el método tradicional* (impreso), ya que permite importantes ahorros en el costo de procesamiento. El Cuadro N° 1 presenta los costos de procesamiento de facturas por ambos métodos.

Cuadro N° 1  
COSTO DE PROCESAMIENTO DE UNA FACTURA EN EE.UU.  
MÉTODO TRADICIONAL VS MÉTODO ON-LINE - EN US\$

Costo	En u\$s				Variación % Promedios
	Tradicional		On-line		
	Valores Extremos	Promedio	Valores Extremos	Promedio	
Costo del emisor	1,65 - 2,70	2,18	0,60 - 1,00	0,80	-63,3%
Costo del cliente	0,42	0,42	0	0	-100,00%
Costo del banco	0,15 - 0,20	0,175	0,05 - 0,10	0,075	-55,56%

Fuente: Elaboración propia en base a Fountain, 2000.

#### 1.2. Un análisis cuantitativo global

Una estimación del ahorro de costos resultante de la implementación del *e-government* en los niveles de gobierno federal, estatal y local en EE.UU. (Fountain, 2000<sup>5</sup>), muestra los cuantiosos beneficios que se espera de la utilización de esta herramienta.

A partir de una proyección de la penetración del gobierno electrónico en los distintos organismos, se estimaron los ahorros que traería la adopción del G2B y del G2C en el período 1998-2024. Utilizando una tasa de descuento del 5% para el cálculo del Valor Presente y del Valor Anualizado Equivalente de dichos ahorros, se obtuvieron los resultados que se presentan en el siguiente cuadro:

<sup>4</sup> <http://www.compraschile.cl>

<sup>5</sup> Para un análisis detallado de la metodología empleada y su enfoque matemático, véase Appendix I y Appendix II de J. Fountain (2000).



gobierno electrónico alrededor del mundo. La integración horizontal (entre las distintas reparticiones de un mismo nivel de gobierno) y vertical (entre los distintos niveles de gobierno) facilita el acceso y simplifica sustancialmente la realización de trámites, reduciendo los tiempos/costos, tanto desde el punto de vista del organismo gubernamental involucrado, cuanto del ciudadano.

- ii. *Mayor eficacia y eficiencia en la gestión pública.* Un incentivo importante que alienta la adopción del *e-government* es la posibilidad de reducir costos. Dichos ahorros pueden materializarse a través de procesos más eficientes -tanto en el ámbito de G2C, G2B y G2G- y consecuentemente lograr incrementos en la productividad.

Esta nueva forma de interacción entre los ciudadanos y sus gobernantes le brinda mayor dinamismo al proceso de participación ciudadana, reduciendo el costo tanto a) del ejercicio de la ciudadanía<sup>6</sup>, cuanto b) del cumplimiento de las obligaciones con el Estado.

- iii. *Transparencia Fiscal.* La adopción del *e-government* brindará una mayor transparencia a la gestión pública, permitiendo el ejercicio adecuado de la accountability. La divulgación de la información vía Internet facilita la participación de los ciudadanos en el control de la función pública y en cierta forma a colaborar con los órganos encargados de dicha función. Esta aplicación está en línea con las recomendaciones que en los 90' han desarrollado los organismos internacionales<sup>7</sup>.

## 2. Costos de implementación.

Los costos asociados a la implementación del *e-government* varían sustancialmente de acuerdo a las dimensiones y complejidad de los proyectos encarados, destacándose la inversión necesaria para generar e implementar una infraestructura con estándares tecnológicos adecuados. Un paso previo importante es la adecuación de los sistemas de información y comunicación de la Administración Pública, a través de la implementación de redes internas.

En el período de transición, hasta la consolidación de las nuevas prácticas, puede que se observen aumentos de costos de funcionamiento en el corto plazo, por la coexistencia de nuevos y viejos métodos, y su falta de coordinación y aprovechamiento integral, hasta que se obtengan los aumentos en la eficiencia, los cuáles se materializan con cierto retardo. Entre los aumentos de costos en el corto plazo puede mencionarse el mantenimiento de infraestructura y personal para la prestación de servicios por ambos métodos, y la posibilidad de un aumento de las preguntas y pedidos a los empleados, tanto en las oficinas públicas como por vía telefónica.

En muchos casos los gobiernos utilizan un modelo de "*riesgo compartido*" con las empresas de alta tecnología, las cuales se encargan tanto de construir como de mantener los sitios gubernamentales. Este modelo se aplica con particular eficacia en transacciones con volúmenes elevados de operaciones entre ciudadanos y el gobierno (G2C), o en transacciones entre el gobierno y proveedores (G2B). Las compañías desarrollan los portales con costos muy bajos o nulos para los gobiernos, ya que en la mayoría de los casos el pago a la empresa proviene de porcentajes por transacción y/o reducciones logradas en los costos.

La falta de una estrategia para un desarrollo sistemático y organizado del gobierno electrónico puede conducir a resultados indeseables desde el punto de vista social, con importantes aumentos de costos (debido a la duplicación y superposición de información), bajo nivel de participación ciudadana y deficiencias en la calidad y posibilidad de acceso a la información.

<sup>6</sup> Se entiende como ejercicio de la ciudadanía al tiempo insumido en actividades de adquisición de información sobre acciones de naturaleza pública, en la adopción de una posición crítica en relación con las mismas y en la actitud activa de participación a través de la cual se puede interferir en el resultado final de la acción pública (Ferreira y Araujo, 2000)

<sup>7</sup> A manera de ejemplo, véase FMI. Manual de Transparencia Fiscal y Código de Buenas Prácticas para la Transparencia Fiscal.

Cabe destacar que la mayoría de los avances tecnológicos relacionados con la seguridad de la información -como protocolos de seguridad, infraestructura de firma digital, entre otros- ya están disponibles en el sector privado y necesitan pocas adaptaciones para su uso por parte del sector público.

### 3. Marco legal y regulatorio.

El marco legal y regulatorio puede constituirse en una importante barrera al avance del gobierno electrónico, especialmente en las etapas de mayor complejidad.

Es indispensable la aprobación y promulgación de las leyes necesarias que brinden un marco de legalidad a las actividades y procedimientos realizadas on-line, otorgándole el mismo carácter que las realizadas a través de los métodos tradicionales. Entre las principales adecuaciones necesarias se destacan la infraestructura de firma digital<sup>10</sup>, la legalización de los documentos electrónicos y la posibilidad de realizar licitaciones a través de Internet, entre otros.

De cualquier manera, la utilidad esperada del sistema es tan elevada que presenta un ambiente propicio para observar casos en que “la necesidad (utilidad) se anticipa a la ley”.

### 4. Infraestructura de comunicaciones.

La existencia de una infraestructura de comunicaciones con estándares tecnológicos adecuados es un requisito indispensable para el éxito de los proyectos de gobierno electrónico.

Dicha infraestructura hace referencia tanto al ámbito nacional -amplias redes de telecomunicaciones accesibles a la mayor parte de la población- cuanto al nivel gobierno -ya que la existencia de redes gubernamentales internas que funcionen eficientemente en la transmisión de información es otro factor fundamental para permitir su desarrollo-.

El avance tecnológico no es una barrera importante para el desarrollo del *e-government* actualmente, ya que la mayoría de las innovaciones necesarias para su implementación ya están siendo utilizadas exitosamente en el *e-commerce*.

### 5. Incentivos de los agentes.

La implementación del *e-government* requiere de un cambio de cultura en los agentes públicos en cuanto a la forma de realizar sus actividades y en las capacidades necesarias para ocupar los cargos. Las reestructuraciones necesarias en la burocracia gubernamental requiere de un alto grado de predisposición y un gran poder de adaptación por parte de los agentes públicos, que generalmente está ausente en la mayoría de ellos.

El proceso de cambio puede implicar no sólo cambios en la forma de realizar las tareas, sino que además puede conducir a reubicaciones de personal entre las distintas áreas y hasta pérdida de puestos de trabajo, con la consiguiente oposición por parte de los grupos involucrados.

El gran desafío que deben resolver los gobiernos es cómo estimular a los agentes a adoptar los cambios radicales que implica el *e-government* ante la ausencia de incentivos y presiones de mercado. En este sentido, la solución al rechazo a las nuevas prácticas debe provenir de la *generación de los incentivos* adecuados para estimular a los agentes.

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<sup>9</sup> i) La integridad hace referencia a la necesidad de garantizar que la información es recibida como fue enviada, sin duplicaciones, agregados, modificaciones, reordenamientos ni repeticiones. ii) La confidencialidad se refiere a la protección de informaciones contra ataques y análisis de mensajes cuando se encuentran en tránsito en las redes o contra su divulgación indebida cuando se encuentra almacenada. iii) El principio de disponibilidad se refiere a los mecanismos necesarios para prevenir la pérdida o reducción de la disponibilidad a la información. iv) La función de la autenticación consiste en garantizar al receptor que la información es realmente originaria de la fuente informada.

<sup>10</sup> Firma Digital es el mecanismo de identificación de un usuario de un Sistema Informático. La sofisticación para la identificación y la seguridad de una firma digital, dependerá de la sensibilidad y confidencialidad de la información manejada por el Sistema. (Crespo, Bernard y Bertona; 1999)

La estrategia predominante en los sitios gubernamentales prestadores de servicios on-line en los países desarrollados, muestra que los gobiernos poseen un *único portal de acceso a todos sus servicios e informaciones*.

En cuanto a la estructura interna de los portales gubernamentales, existen dos formas básicas de ordenar la información y los servicios prestados: i) portales de estructura horizontal y ii) portales de estructura vertical.

Los sitios de tipo horizontal clasifican todos los servicios e informaciones del gobierno de acuerdo a su tipo o tema relacionado, facilitando la búsqueda y acceso a los clientes-ciudadanos. Los portales de tipo vertical presentan los servicios y la información ordenada de acuerdo al organismo que los provee, es decir que no se accede directamente a ellos, sino a través de la página correspondiente al organismo pertinente. El primer tipo de estructura tiene la ventaja de que los usuarios no deben conocer previamente el organismo que presta el servicio en el que están interesados.

Un estudio reciente de la Brown University (Septiembre de 2000) analiza la situación y condiciones actuales del *e-government* en Estados Unidos a través de una investigación en los gobiernos estatales y en el federal. Los hallazgos más sobresalientes de esta investigación se resumen en los siguientes puntos<sup>12</sup>:

- 22% de los sitios ofrece por lo menos un servicio on-line<sup>13</sup>.
- Solamente 5% de los sitios gubernamentales contenían algún tipo de política de seguridad y 7% políticas de privacidad de la información.
- El 91% de los sitios respondió a un pedido de información realizado, de los cuales el 75% lo hizo en menos de un día y sólo el 1% demoró más de seis días en responder.
- 15% de los sitios ofrece algún mecanismo de acceso para discapacitados.
- 4% de los sitios ofrece traducción a un idioma extranjero.
- En general los sitios del Gobierno Federal tuvieron un mejor desempeño que los pertenecientes a los Estados. Lo mismo ocurre entre los sitios de los poderes Ejecutivo y Legislativo con respecto al Poder Judicial.
- La variable explicativa más relevante de la posición ocupada en el ranking es el tamaño de la población. Los estados más pequeños en términos poblacionales *disponen de menores recursos y no tienen acceso a las economías de escala que gozan los estados grandes en las iniciativas tecnológicas*.

En términos generales, el estudio concluye que los gobiernos en Estados Unidos -tanto Federal como Estadales- i) no han aprovechado aún todo el potencial de desarrollo del *e-government*, ii) no utilizan plenamente las tecnologías disponibles y iii) persisten problemas en términos de acceso y alcance democrático<sup>14</sup>.

## B. El caso argentino

El gobierno electrónico en Argentina se encuentra en las primeras etapas de desarrollo, y por lo tanto están surgiendo las primeras iniciativas relacionadas al tema. A continuación se realiza un análisis del estado actual del *e-government* en la Argentina para los diferentes niveles de gobierno (nacional, provincial y municipal). Para el estudio se tomó como base las experiencias del Gobierno Nacional y de la

<sup>12</sup> La investigación se basó en el estudio de 1.813 sitios gubernamentales en Internet (1.716 de gobiernos estatales, 36 de los poderes Ejecutivo y Legislativo del nivel Federal y 61 del Poder Judicial Federal).

<sup>13</sup> A los fines de la investigación se considera servicio on-line a aquellos que son concretados íntegramente vía Internet.

<sup>14</sup> Ya que ciertas minorías gozan de muy bajas -o nulas- posibilidades de acceso debido a discapacidades u otros factores como el idioma.

## Ventajas y desventajas del portal argentino.

## ARGENTINA

Ventajas	Desventajas
<ul style="list-style-type: none"> <li>▪ Posibilidad de acceso a todas las páginas de los diferentes niveles de gobierno (nacional, provincial y municipal) y a los diferentes poderes (ejecutivo, legislativo y judicial).</li> <li>▪ Contiene un solo sitio en donde realizar todas las quejas para cualquier organismo o dependencia.</li> <li>▪ Ofrece la posibilidad de inscripción para recibir información periódica vía e-mail.</li> <li>▪ Se pueden bajar formularios y programas con distintas utilidades.</li> <li>▪ Posee información interactiva<sup>15</sup>.</li> <li>▪ Posee mail para efectuar comentarios.</li> <li>▪ Tiene links externos, mapa del sitio, buscador, acceso a otros sitios de interés del gobierno y servicio de noticias.</li> <li>▪ Tiene publicaciones y proyectos referidos a <i>e-government</i>.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Portal de tipo Vertical.</li> <li>▪ No contiene la política de privacidad y seguridad del sitio.</li> <li>▪ El portal no presenta todos los servicios disponibles en los diferentes sitios del gobierno y los mismos están clasificados por agencias prestadoras y no por tipo de servicio.</li> <li>▪ No tiene lista con las preguntas más frecuentemente realizadas (FAQ) por los visitantes ni guía de ayuda.</li> </ul>

El sitio principal se complementa con portales específicos referidos a diferentes temas de particular interés entre los que se destacan<sup>16</sup>:

*Transparencia Fiscal: [www.cristal.gov.ar](http://www.cristal.gov.ar)*

El portal Cristal es un sitio de presentación de información gubernamental y tiene como principal objetivo aumentar la transparencia de la gestión pública y estimular la accountability de los funcionarios. Este sitio pretende ser el principal medio de difusión de la gestión del Estado Nacional Argentino y apunta a acercar al ciudadano información del sector público.

El "Compromiso Federal por el Crecimiento y la Disciplina Fiscal" firmado entre los Gobiernos Provinciales y el Gobierno Federal en Noviembre de 2000 establece que: "*Los gobiernos de la Nación, de las provincias y de la Ciudad Autónoma de Buenos Aires acuerdan establecer procedimientos para posibilitar una amplia difusión de sus cuentas fiscales, incluyendo presupuesto corriente, su ejecución, deuda y la proyección de sus servicios mediante sistemas informáticos*". Dicho compromiso detalla cierta información que tendrá carácter público y será de libre acceso para cualquier institución o persona interesada en conocerla. El sitio Cristal se presenta como un instrumento importante para el cumplimiento de dicha obligación.

Los contenidos del sitio se estructuran alrededor de tres ejes temáticos principales: i) cuentas públicas, ii) gestión pública y iii) control de los representantes, de manera de poder cumplir con el

<sup>15</sup> Se considera interactiva a aquella información que para ser visualizada requiere del llenado de ciertos datos por parte del usuario.

<sup>16</sup> La lista de sitios presentada dista mucho de ser exhaustiva, y sólo incluye a aquellos considerados de mayor interés para el presente trabajo.

jurisdicciones. En este sentido, se prevé la transferencia e implementación del Sistema OSIRIS<sup>19</sup> a las diferentes Direcciones de Renta provinciales.

*Administración Nacional de Seguridad Social: [www.anses.gov.ar](http://www.anses.gov.ar)*

El sitio Ansesnet es un portal de información y servicios de la Administración Nacional de la Seguridad Social, que brinda información y asesoramiento sobre los trámites que se llevan a cabo en este organismo. El portal brinda ciertos servicios *on-line*, los cuales se dividen según sus prestatarios en: i) Servicios para Personas: Constancia del CUIL (Código Único de Identificación Laboral), Registro único de Beneficiarios, Calendarios de Pagos, Formularios y ii) Servicios para Empresas: Posibilidad de consultar las bases de datos del ANSES y un servicio de Conexión Directa, que permiten la transferencia de archivos entre las PC de los usuarios y los computadores centrales de ANSES.

### 1.3. Poder Legislativo.

Las importantes oportunidades que presenta el *e-government* para mejorar la relación entre los ciudadanos y sus legisladores no han sido explotadas aún por el Poder Legislativo nacional.

El Congreso de la Nación ha comenzado a prestar ciertos servicios básicos a través de sus páginas web<sup>20</sup>, pero las mismas son en su mayor parte de presentación institucional.

La página del Senado muestra un mayor grado de desarrollo que su par de Diputados. En ella se puede acceder a información acerca de la composición de la Cámara y actividad de los legisladores, y entre los servicios que presta puede mencionarse la búsqueda de proyectos de Ley y la posibilidad de acceder a las versiones taquigráficas completas de las sesiones<sup>21</sup>. Además, la página cuenta con una función general de búsqueda, links con otros organismos públicos y con páginas externas, el listado de direcciones de correo electrónico de los senadores y una sección donde se publican las licitaciones para contratos de provisión de bienes y servicios a la Cámara.

En cuanto a la página de Diputados, esta presenta información de la Cámara y su composición, brinda acceso a las versiones taquigráficas, posee el listado de los diputados y su correo electrónico, links con sitios de interés y un servicio de intranet para uso exclusivo de sus miembros.

Si bien ambas Cámaras poseen el listado de los legisladores con su dirección de correo electrónico - lo cuál representa un avance-, se debe lograr que esta herramienta sea utilizada como un instrumento para mejorar la comunicación con los ciudadanos, lo cuál no ocurre en la actualidad.

En cuanto a la legislación relacionada a la adopción y difusión de las nuevas tecnologías, se pueden citar: i) la Ley de Habeas Data y ii) los proyectos de Ley de Firma Digital.

- i. En octubre de 2000 se aprobó la ley que reglamenta la recopilación y comercialización de los datos personales por empresas privadas, organismos públicos y particulares. Ésta es la herramienta legal para que la gente pueda controlar quiénes tienen sus datos personales y para qué los usan. La reglamentación del *Habeas Data* establece un fuerte control estatal sobre empresas y organismos públicos, para evitar que se almacene información confidencial de personas sin que éstas se enteren y den su consentimiento.
- ii. Actualmente existen varios proyectos de Ley y un proyecto de modificación del Código Civil con el objetivo de *ampliar la admisión de la firma* en los casos que intervienen medios electrónicos como instrumento, siempre y cuando se utilice un método para identificarla y ese método asegure razonablemente la autoría e inalterabilidad del instrumento. Estos proyectos se basaron en los antecedentes de la Ley de UTAH (EE.UU.), la Ley alemana de Firma Digital y las recomendaciones de la Comunidad Europea al respecto (Velázquez, 2000).

<sup>19</sup> El OSIRIS es un sistema informático para la presentación de declaraciones juradas y pagos, impositivos y previsionales, actualmente en uso por la AFIP/DGI.

<sup>20</sup> (<http://www.senado.gov.ar> y <http://www.hcdn.gov.ar>)

<sup>21</sup> Se puede acceder a las versiones taquigráficas posteriores a Febrero de 1998.

Uno de los ejes principales del proyecto es la implementación del *Sistema Único de Atención al Ciudadano* (SUAC), el cual empleará al teléfono y a Internet, como los principales medios para la interacción entre el gobierno y los ciudadanos. La utilización de los Centros de Atención Telefónica -Call Centers- se plantea como la alternativa de uso masivo, debido a la baja penetración de Internet que se observa en la Provincia de Córdoba<sup>25</sup>. Uno de los requisitos previos a la implementación de las reformas previstas es la creación de una base de datos única para todos los sistemas.

Dentro de los avances realizados referidos a *e-government* cabe destacar:

- La generalización del uso del correo electrónico para la comunicación interna entre los agentes.
- La creación de una Red Provincial de Búsqueda de Empleo (*Córdoba Empleo*), en la página del Gobierno Provincial<sup>26</sup> que brinda diversos servicios tanto a trabajadores cuanto a empresas interesadas en contratar personal, tales como búsquedas personalizadas, agenda de cursos de capacitación, entre otros.
- La implementación del Seguimiento Electrónico de expedientes.

El Gobierno provincial está por implementar un sistema de gestión de compras a través de Internet que consta de cuatro ejes fundamentales, a saber: i) *Catálogo*, que comprende la calificación y clasificación cualitativa de los productos; ii) *Proveedores*, que contempla la calificación de los proveedores en términos de calidad de cumplimiento de las condiciones pactadas; iii) *Cotización*, se refiere a la compulsa de precios entre los distintos proveedores y iv) *Founding*, que hace referencia a la posibilidad de disponer de los fondos de financiamiento necesarios.

Un punto considerado importante en la relación entre el Gobierno Provincial y los municipios es la firma de convenios para la unificación de criterios y para la transferencia de tecnología, de modo de impulsar el proceso de informatización y modernización en los diferentes niveles de gobierno.

## 2.2. Poder Legislativo.

La Legislatura Provincial se encuentra actualmente en la etapa de adecuación de su estructura informática, habiendo desarrollado un nuevo sistema informático<sup>27</sup>, el cual se encuentra en las etapas previas a la implementación y permitirá el acceso a una completa base de datos que posibilitará conocer en tiempo real las características y situación de cada uno de los proyectos presentados.

En cuanto a los sitios de ambas cámaras<sup>28</sup>, estos se centran en brindar información de tipo institucional, presentando la lista legisladores que las componen con información personal de los mismos y sus direcciones de correo electrónico.

En términos generales el Poder Legislativo provincial muestra un escaso grado de desarrollo en la utilización de las herramientas del *e-government* para mejorar la interacción de los legisladores con los ciudadanos.

## 2.3. Poder Judicial.

El Superior Tribunal de Justicia de la Provincia de Córdoba está llevando adelante el proyecto de *Optimización de la Gestión Administrativa y Jurisdiccional del Poder Judicial de la Provincia de Córdoba*<sup>29</sup>, el cuál tiene como objetivo la incorporación de tecnología que permita dotar de mayor eficiencia a la gestión judicial. Dicho proyecto contempla la utilización de diversas herramientas, entre ellas Internet, para la prestación de servicios y agilización de los procedimientos.

<sup>25</sup> De acuerdo a datos proporcionados por la Subsecretaría de la Función Pública la penetración de Internet es del 4% de la población para el Gran Córdoba y de sólo 0,8% para el interior provincial.

<sup>26</sup> <http://www.cba.gov.ar>

<sup>27</sup> El nuevo sistema fue desarrollado con financiamiento del Banco Mundial.

<sup>28</sup> <http://senadorescba.gov.ar> y <http://www.diputadoscba.gov.ar>

<sup>29</sup> El proyecto comenzó a implementarse en 1997 y es financiado por el Banco Mundial.

Dentro de los principales objetivos del Municipio Digital se encuentra la implementación de una "Tarjeta Digital" para la identificación operativa del ciudadano y la realización de todo tipo de trámites administrativos.

## V. Desarrollo potencial y perspectivas.

### A. Principales determinantes de su desarrollo.

Son numerosos los factores que influyen directamente en las posibilidades de desarrollo y éxito de las políticas tendientes a difundir el uso de Internet como herramienta para la prestación de servicios y diseminación de información por parte del sector público. Muchos de estos determinantes son similares a los que influyen en la adopción de computadoras y de Internet. La materialización de los cuantiosos beneficios potenciales que promete el gobierno electrónico depende del impacto conjunto de los mismos.

Los principales determinantes del grado de generalización y éxito de estas políticas son: i) costo de acceso a Internet, ii) Infraestructura de comunicaciones del país, iii) Grado de penetración de Internet y de las TIC y iv) Las características sociodemográficas de la población.

A continuación se presenta un análisis detallado de cada uno de estos factores, de manera de conocer la situación actual y extraer conclusiones acerca de la importancia de los mismos y las posibilidades de desarrollo potencial del gobierno electrónico en Argentina. En la mayoría de los puntos, para formar una visión adecuada de la situación actual en el caso de Argentina, se realizan comparaciones con otros países latinoamericanos, específicamente Brasil y Chile.

#### 1. Costo de acceso.

El costo de acceso a Internet es un factor de gran importancia en lo que se refiere a la posibilidad de conectarse a la red, y por consiguiente de acceder a los beneficios del *e-government*. Este costo de acceso incluye no sólo el cargo pagado por el usuario al proveedor de Internet por la conexión, sino además todo el equipamiento necesario para acceder a la misma.

El *Costo Total* de acceso puede descomponerse en tres elementos principales:

- *Costo Telefónico*: representa el costo de mantener una línea telefónica y el valor de los minutos de llamada.
- *Costo de acceso*: representa el cargo por los servicios de conexión del Proveedor de Servicios de Internet (ISP).
- *Costo de hardware y software*: representa la amortización del hardware (PC, modem, etc.) y del software necesarios para conectarse.

A pesar de la reducción de las tarifas telefónicas evidenciadas en la mayoría de los países de América Latina como consecuencia de las privatizaciones, desregulaciones y crecimiento del sector de las telecomunicaciones, el *costo telefónico* continúa siendo una barrera importante al acceso a Internet en la mayoría de ellos.

La generalización de las líneas de acceso exclusivo a Internet (líneas 0610 para el caso de Argentina) produjo una caída sustancial de los costos y es uno de los factores que impulsó un incremento en la cantidad de usuarios.

El *costo de acceso* también ha evidenciado un rápido descenso en los últimos años, debido a la mayor competencia entre proveedores; y han surgido firmas que ofrecen el acceso gratuito. Sin embargo, aún existen ciertos diferenciales de costos entre los proveedores de Internet latinoamericanos y los de los países desarrollados, los cuáles no harían posible, en el corto plazo, una convergencia de los precios de acceso. Esto determina que el acceso a Internet en países latinoamericanos continuaría siendo relativamente oneroso en comparación con los países desarrollados.

Cuadro N° 6

Cantidad de líneas telefónicas y teléfonos celulares cada 100 habitantes. 1999 y proyecciones 2003.

País	1999		2003		Tasa de variación (1999-2003) -%-	
	Teléfonos Fijos	Teléfonos Celulares	Teléfonos Fijos	Teléfonos Celulares	Teléfonos Fijos	Teléfonos Celulares
Argentina	20	7.0	23.2	8.9	16	27
Brasil	14.3	4.6	23	8.7	61	89
Chile	20.4	8.9	26.1	19.1	28	114
Promedio América Latina	12	S/d	17	S/d	42	S/d

Fuente: Elaboración propia en base a Morgan Stanley Dean Witter (1999) y CEPAL (1999).

Actualmente Argentina y Chile muestran niveles similares de teledensidad (aproximadamente veinte líneas telefónicas cada cien habitantes), mientras que Brasil muestra un nivel considerablemente menor, lo cual lo posicionaría en una situación de desventaja relativa. De todos modos, las diferencias observadas en la actualidad tenderían a desaparecer en poco tiempo. De acuerdo a las proyecciones de la Consultora Morgan Stanley Dean Witter, Brasil muestra una tasa de crecimiento esperada de la teledensidad entre 1999 y 2003 (61%) muy superior a las correspondientes a Argentina y Chile (16% y 28% respectivamente). Estos tres países se encuentran por encima de la media latinoamericana de teledensidad, tanto en la actualidad cómo en las proyecciones, aunque esta brecha tiende a atenuarse.

Si bien los elevados costos de acceso a la tecnología actual no permiten un uso masivo de Internet a través de teléfonos celulares, es de esperar que esta modalidad se generalice en los próximos años. El elevado crecimiento esperado en la cantidad de teléfonos móviles (Véase Cuadro N° 6) puede ayudar a incrementar la penetración de Internet en América Latina, aún cuando su uso se limite sólo a algunas aplicaciones (uso de e-mail, lectura de información, entre otros)

Cabe destacar que no sólo es importante el nivel de teledensidad del país, sino además la distribución regional de las líneas telefónicas. En el caso de Argentina, si bien muestra un nivel relativamente alto de teledensidad para América Latina, presenta una distribución regional muy dispar, concentrándose las líneas telefónicas en aquellas regiones de mayor desarrollo relativo.

El Gráfico N° 1 presenta la teledensidad por regiones<sup>36</sup> para la República Argentina, el cual muestra una considerable disparidad entre las mismas –la cantidad de líneas telefónicas cada 100 habitantes en Buenos Aires y la Capital Federal (26,5) es más de tres veces superior a la correspondiente a la Región Norte (8,2).

<sup>36</sup> Las regiones argentinas se componen de la siguiente manera: *Región Centro* –Córdoba, Entre Ríos y Santa Fe-, *Región Cuyo* –Mendoza, San Juan y San Luis-, *Región Norte* –Catamarca, Corrientes, Chaco, Formosa, Jujuy, La Rioja, Misiones, Salta, Santiago del Estero y Tucumán- y *Región Sur* –Chubut, La Pampa, Neuquén, Río Negro, Santa Cruz y Tierra del Fuego e Islas del Atlántico Sur-.



Existe una gran disparidad entre la cantidad de PC en uso en Argentina, y en general en todos los países latinoamericanos, con respecto a los avanzados, lo cuál da una idea de las diferencias en el grado de penetración del uso de computadoras. *La cantidad de PC por habitante en Argentina es aproximadamente 11 veces menor que en Estados Unidos o Singapur.*

Los niveles de penetración de PC tanto para Argentina como para Chile son similares (4,15 y 4,82 PC cada 100 habitantes respectivamente), siendo sensiblemente menor para el caso brasilero (3,01 PC cada 100 habitantes).

El grado de *penetración de Internet* puede medirse a través de la cantidad de usuarios de Internet y de la proporción que estos representan dentro de la población total. Los estudios realizados difieren sustancialmente en la estimación, no sólo por lo dinámico que es este mercado, sino además por la metodología empleada para estimarlos.

Las estimaciones moderadas de la cantidad de usuarios arrojan los valores mostrados en el Cuadro N° 12. Cabe destacar que más relevante que el número absoluto de usuarios, lo es el porcentaje que estos representan dentro de la población total.

Cuadro N° 8  
Usuarios de Internet como porcentaje de la Población (1999).

País	Usuarios	% de la Población
Argentina	900.000	2.5
Brasil	4.000.000	2.4
Chile	625.000	4.2
EEUU	110.000.000	40.7

Fuente: UIT (Unión Internacional de Telecomunicaciones)  
Indicadores de Telecomunicaciones De las Américas2000.

El grado de penetración de Internet de Argentina y Brasil es de aproximadamente 2,5% de la población, mientras que Chile presenta un porcentaje sensiblemente mayor (4,2%), lo cuál le brindaría un mayor potencial de desarrollo del *e-government*.

Las proyecciones para América Latina en el período 1999-2003 muestran un sostenido crecimiento del número de usuarios adultos activos, pasando de 4,1 millones en 1999 a 19,28 millones en el año 2003, lo cuál representa una tasa variación de 370% en dicho período. Argentina es el país -de los tres presentados- con mayor tasa de crecimiento esperada (743%), seguida de Brasil (365%) y Chile (100%).

Al analizar el nivel de generalización del uso de Internet en la sociedad, además de los factores antes mencionados, debe destacarse el efecto que provocan las *externalidades de red* sobre el grado de penetración de Internet. La probabilidad de adopción de computadoras tiene una relación directa con el nivel de conectividad (porcentaje de la población que ya la adoptó): mientras mayor el nivel de conectividad (*ceteris paribus*), mayor es la probabilidad de adoptar las computadoras. Sin embargo, a pesar de la importancia empírica del efecto de las externalidades de red, estas no justifican por sí solas la intervención del estado (IERAL, 2000).

#### 4. Características sociodemográficas.

Las características sociodemográficas de la población son un determinante importante de las posibilidades de adopción masiva de las nuevas tecnologías. Las principales características de los usuarios de Internet en América Latina pueden resumirse en las siguientes: i) están concentrados en la población joven, ii) pertenecen a los segmentos de mayor poder adquisitivo, iii) gozan de un nivel educativo avanzado (educación secundaria o universitaria), iv) están representados por una proporción levemente superior de hombres (60% de hombres y 40% de mujeres aproximadamente) y v) son en su mayoría residentes urbanos.

Si bien el nivel económico es una barrera importante a la adopción masiva, puede resolverse en el corto plazo a través de políticas tendientes a asegurar el acceso universal en forma gratuita, por ejemplo a través de la instalación de puestos públicos de Internet.

El nivel educativo de la población es considerado la variable más importante que puede limitar la difusión de las nuevas tecnologías, ya que puede corregirse solamente en el largo plazo. El manejo de las herramientas necesarias para el uso de las nuevas tecnologías requiere de un grado de calificación mínimo. Por lo tanto, un mejor nivel educativo de la población facilita la asimilación de las prácticas necesarias para la interacción entre los ciudadanos y el gobierno a través de Internet.

Además de los condicionantes antes mencionados, existe cierta proporción de la población -que varía de acuerdo a los países- que nunca adoptará las nuevas tecnologías ya sea por razones culturales, de costumbre, etc. Una de las variables principales que explica el rechazo a la utilización de las nuevas tecnologías es la edad. Los usuarios de Internet se concentran en la población joven y la proporción de usuarios se reduce considerablemente en los grupos de mayor edad.

Argentina, Brasil y Chile -y en general toda América Latina- poseen la particularidad de que su población es mayoritariamente joven. Los habitantes menores a treinta años en Argentina representan el 53,3% de la población total, en Brasil el 62,8% y en Chile el 53,7% (e-marketer, 2000). De lo anterior pueden deducirse dos cuestiones: i) la explicación de porqué el usuario medio en América Latina tiene entre 24 y 27 años, y ii) las buenas expectativas de crecimiento de Internet -y por consiguiente del *e-government*- en la región.

#### B. Perspectivas futuras: Estrategias para un desarrollo exitoso y prescripciones de política pública.

El potencial de desarrollo del *e-government* es enorme, pero su éxito dependerá crucialmente de la capacidad de adaptación de los gobiernos y de su habilidad para adoptar una estrategia que le permita sortear las principales barreras a su desarrollo. Dicha estrategia debe contemplar un proyecto de mediano/largo plazo que establezca los lineamientos fundamentales para todas las iniciativas relacionadas al gobierno electrónico y que contemple el establecimiento de un órgano director y coordinador.

La implementación de proyectos TIC a gran escala plantea grandes riesgos para los gobiernos<sup>37</sup>, y la incapacidad de éstos de manejarlos adecuadamente se plantea como una amenaza al desarrollo del *e-*

<sup>37</sup> Generalmente se considera que el riesgo de fallar es prácticamente directamente proporcional al tamaño del proyecto encarado (OCDE, 2000).

existencia de un sistema de información contable integral y adecuado, que refleje todas las transacciones gubernamentales, es una condición necesaria para el desarrollo de las etapas más avanzadas.

- Estimular la transición de los sitios institucionales (de presentación de información) a sitios prestadores de servicios.
- Orientar las políticas hacia el logro del acceso universal a las TIC a través, por ejemplo, de puestos públicos de acceso.

## VI. Conclusiones.

Argentina, y en general los países Latinoamericanos, muestran diferentes grados de avance en la utilización de las TIC por parte del sector público. A través del presente trabajo se pretendió brindar una visión global del *e-government* y sus avances en Argentina.

El gran dinamismo del tema, la existencia de ciertos retardos de implementación y el hecho que la mayoría de los proyectos se encuentran en su etapa de desarrollo no permiten llegar a apreciaciones concluyentes acerca de los avances alcanzados.

El análisis aislado de la situación actual del portal principal de acceso del gobierno nacional, no es un indicador adecuado del grado de desarrollo del *e-government*, pero sirve para visualizar a grandes rasgos la visión y la forma de estructurar las iniciativas de prestación de servicios.

Por otro lado, el estudio de los proyectos de *e-government* plantea la dificultad de diferenciar cuáles son puramente expresiones de deseo y cuáles son planes con una visión clara del gobierno electrónico y sus ventajas.

El análisis de los principales determinantes del desarrollo, sugiere que Argentina posee ciertas ventajas relativas en cuanto a infraestructura y al nivel socioeconómico de su población. Sin embargo deberá apuntar a políticas que conduzcan a una reducción de los costos de acceso a Internet y a aumentar la competencia en el mercado de las telecomunicaciones, para incentivar un aumento en la penetración de las TIC y de Internet. Esto permitiría una disminución del impacto de la brecha digital y así ayudar al cumplimiento del principio social de brindar y mejorar la calidad de sus servicios a los ciudadanos.

En cuanto al desarrollo e implementación de iniciativas, se observa que si bien la mayoría de los organismos han introducido nuevas tecnologías de gestión, el alcance de las mismas no fue generalizado ni regulado de forma tal de aprovechar integralmente sus ventajas. En general, la implementación de las nuevas tecnologías, estuvo asociada a la mayor o menor disponibilidad de recursos financieros de los organismos y no a un plan estratégico tendiente a aumentos en la eficiencia y transparencia de la gestión pública y a un mejoramiento de la calidad de los servicios prestados. De esta manera no se aprovecharon, diseminaron ni compartieron las experiencias entre los organismos en los diferentes poderes y niveles de gobierno.

La inexistencia de una política de armonización y regulación en la incorporación tecnológica, derivó en el agravamiento de diversas deficiencias: la ausencia de estándares tecnológicos básicos, la duplicación de tareas, la falta de seguridad de las redes y la incompatibilidad de las mismas. Sin embargo, actualmente se observan importantes esfuerzos tendientes a unificar programas, compatibilizar sistemas y a armonizar la información disponible, lo cual contribuiría, al menos en parte, a resolver los problemas observados.

En la mayoría de los países del mundo -incluso en los más desarrollados- el *e-government* se encuentra en las primeras etapas de desarrollo, propone un elevado potencial de crecimiento y promete el logro de cuantiosos beneficios esperados. Sin embargo, si bien la sociedad del conocimiento tiene la potencialidad de generalizar el bienestar, puede derivar en el agravamiento de la desigualdad y

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**E-GOVERNO NO BRASIL**

**Estudo da Secretaria para Assuntos Fiscais do Banco Nacional de Desenvolvimento  
Econômico e Social (SF/BNDES), elaborado por Andréa Gomes Fernandes  
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### Abstract

This paper describes the situation of *e-government* in Brazil. The first section brings some theoretical considerations on functions and typical stages of development of *e-government*. In the second section, the main national programs and guidelines on the subject are described. Finally, the paper provides a summary of best practices of *e-government* at the federal and at the subnational levels.

### Resumo

O trabalho procura descrever o estágio atual do *e-governo* no Brasil. A primeira parte traz algumas considerações sobre as funções do governo eletrônico e os estágios típicos de desenvolvimento de portais governamentais. Na segunda parte, são descritos os principais programas nacionais que devem orientar as próximas ações voltadas para a consolidação do *e-governo* no país. A terceira parte apresenta uma descrição sintética de experiências bem-sucedidas de *e-governo* tanto no nível federal quanto no âmbito dos governos subnacionais. O artigo discute ainda as implicações da implantação do governo eletrônico no que concerne à inclusão e ao federalismo.

### Introdução

O uso, pelos governos, das novas tecnologias da informação na prestação de serviços e informações para cidadãos, fornecedores e servidores constitui o que se convencionou chamar de *e-governo*. No Brasil, a melhor estratégia para a disseminação do uso da Internet na função pública e a definição de qual é o papel do Estado neste campo vêm sendo objeto de crescente interesse e debate.

Vários estudos<sup>1</sup> indicam que tanto o governo federal quanto os governos subnacionais já estão consideravelmente envolvidos com a aplicação das novas tecnologias da informação na administração pública. Grandes dificuldades, porém, persistem. De um lado, está o desafio da ampliação do acesso à Internet no país. De outro lado, a interoperabilidade<sup>2</sup> entre os diversos órgãos da administração pública - sem a qual não é possível atingir estágios mais avançados de *e-governo* - depende de investimentos consideráveis na modernização administrativa da União, estados e municípios.

Com relação ao primeiro problema, o Programa *Sociedade da Informação no Brasil* (<http://www.socinfo.org.br/>), cujo *Livro Verde* foi lançado recentemente pelo Ministério da Ciência e Tecnologia, tem como objetivo principal articular e coordenar o desenvolvimento e a utilização de produtos e serviços avançados de computação, comunicação e conteúdos, visando à universalização do acesso e à inclusão de todos os brasileiros na Sociedade da Informação.

O aumento da interoperabilidade, por sua vez, vem sendo perseguido de diversas maneiras. Linhas de financiamento foram criadas<sup>3</sup> para fomentar a modernização administrativa de estados e municípios. No nível federal, foi lançado recentemente o programa piloto *Rede Br@sil.gov* (<http://www.governoeletronico.gov.br/>).

<sup>1</sup> Farto material pode ser encontrado na página sobre Governos on-line do site Banco Federativo (<http://federativo.bndes.gov.br/>). Ver apresentação *Governo Eletrônico no Brasil*, do chefe da Casa Civil, Ministro Pedro Parente, mostrando a posição oficial do Governo Brasileiro sobre o tema.

<sup>2</sup> Sobre o conceito de interoperabilidade e para uma comparação interessante sobre estratégias governamentais nesse campo, ver documento oficial do Governo do Reino Unido *E-government Interoperability Framework* (Central IT Unit- Cabinet Office, 2001).

<sup>3</sup> Como os programas PMAT do BNDES e PNAFE e PNAFM, do Ministério da Fazenda.

g) estímulo aos *e-negócios*, através da criação de ambientes de transações seguras, especialmente para pequenas e médias empresas.

O desenvolvimento do *e-governo* passa, geralmente, por quatro estágios.<sup>5</sup> O primeiro consiste na criação de *sites* para a difusão de informações sobre os mais diversos órgãos e departamentos dos diversos níveis de governo. Eventualmente, esses *sites* são reunidos em um portal que, neste estágio, consiste apenas em uma espécie de catálogo de endereços dos vários órgãos do governo.

No segundo estágio, estes *sites* passam também a receber informações e dados por parte dos cidadãos, empresas ou outros órgãos. A comunicação neste caso torna-se uma via de mão dupla. O contribuinte pode enviar sua declaração de imposto de renda ou informar uma mudança de endereço; são criados endereços eletrônicos para receber reclamações ou sugestões nas diversas repartições; firmas se cadastram eletronicamente para o fornecimento de certos serviços; dados são transferidos, usando a Internet, de um departamento ou de uma prefeitura ou de uma unidade hospitalar, por exemplo, para um órgão central, e assim por diante.

Na terceira etapa de implantação do *e-governo*, as transações se tornam ainda mais complexas. Neste estágio, são possíveis trocas de valores que podem ser quantificáveis. São realizadas operações como pagamentos de contas e impostos, educação à distância, matrículas na rede pública, marcação de consultas médicas, compras de materiais, etc. Em outras palavras, além de informações, valores são trocados e serviços anteriormente prestados por um conjunto de funcionários atrás do balcão são agora realizados usando uma plataforma de rede e uma interface direta e imediata com o cidadão ou empresa. Isto implica adaptações nos processos de trabalho.

Estas modificações tornam-se ainda mais complexas e radicais no quarto estágio de implantação do *e-governo*. Nele, é desenvolvido um tipo de portal que não é mais um simples índice de *sites* do governo com centenas de endereços, mas um lugar de convergência de todos os serviços prestados pelo governo. Neste estágio, o serviço é disponibilizado por funções ou temas, e não segundo a divisão real do governo em ministérios, departamentos, etc.<sup>6</sup>

Assim, ao lidar com o governo, cidadãos ou empresas não precisam mais dirigir-se a inúmeros órgãos diferentes para procedimentos como mudar de estado civil, requerer seguro-desemprego, abrir uma firma ou obter uma determinada licença. É possível resolver tudo em um único lugar, com uma única senha. O usuário não tem de saber quais órgãos ou departamentos, de quais níveis de governo e em que seqüência são mobilizados para a realização de um determinado serviço ou a prestação de uma informação. O que acontece por detrás da interface eletrônica (*off-line*) não interessa a ele.

Para que isso seja possível, contudo, é necessária uma mudança radical nos bastidores, pois muitos dos serviços a serem realizados exigirão uma intensa colaboração entre os diversos órgãos e repartições, por meio de uma Intranet governamental segura, que integre todos eles. Em outras palavras, num estágio avançado do *e-governo*, automação de atividades e racionalização dos procedimentos implicam transformações radicais dos processos de trabalho, e não apenas agilização destes processos. O desenvolvimento da interoperabilidade entre os vários órgãos da administração pública, enfim, torna premente uma verdadeira reforma administrativa do Estado. E não é possível levar esta tarefa a cabo sem um intenso programa de treinamento e reciclagem de todos os funcionários públicos.

De forma geral, pode-se dizer que, na maioria dos países, os princípios gerais que orientam o *e-governo*, qualquer que seja o seu estágio, são a democratização do acesso à informação, a universalização na prestação dos serviços públicos, a proteção da privacidade individual e a redução das desigualdades sociais e regionais.

<sup>5</sup> Para uma visão geral destes estágios em diversos países, ver *The Next Revolution: a Survey of Government and the Internet*, em *The Economist*, 24/06/2000.

<sup>6</sup> Ver exemplo do eficiente portal de serviços do governo de Singapura (<http://www.ecitizen.gov.sg/>); ver ainda o portal institucional do governo deste país (<http://www.gov.sg/>).

(devido-se considerar, por seu turno, as disparidades regionais e de renda) e deve ser irrestrito (igualdade de oportunidade).

Assim, o acesso universal<sup>10</sup> exige tanto a superação das dificuldades infra-estruturais relativas ao desenvolvimento de redes de telecomunicação e ao acesso democrático a elas; quanto, principalmente, a educação digital da população, isto é, a sua capacitação para usar e manejar os novos meios de comunicação. Na verdade, pode-se dizer que o horizonte das políticas federais voltadas para o governo eletrônico é a infoinclusão.

Considerando, porém, os graves problemas de desigualdade na distribuição da renda, as dimensões continentais do país, o tamanho da população e a grande autonomia financeira, política e administrativa dos governos subnacionais, o governo federal optou por estabelecer diretrizes nacionais, ao invés de impor políticas centralizadoras na matéria, de mais a mais completamente incompatíveis com o espírito da Internet.

Esta é a orientação para os três programas citados acima, que descreveremos a seguir.

#### A. Sociedade da Informação (<http://www.socinfo.org.br/>)

Com a abertura da Internet à operação comercial, a partir de meados de 1995, o governo brasileiro cumpriu o primeiro ciclo de desenvolvimento das redes nacionais. O programa *Sociedade da Informação no Brasil* (<http://www.socinfo.org.br/>) visa a propor alternativas para a próxima fase da Internet no país.

Ele é fruto dos esforços do Conselho Nacional de Ciência e Tecnologia (CTT). O programa, que é coordenado pelo Ministério da Ciência e Tecnologia, foi instituído por um decreto-lei em dezembro de 1999 e faz parte do conjunto de projetos que compõem o Plano Plurianual 2000-2003 (PPA), tendo um aporte de recursos previsto da ordem de R\$ 3,4 bilhões. Seu detalhamento foi confiado a um grupo de implantação, composto por representantes do governo, setor privado, comunidade acadêmica e terceiro setor.

O programa *Sociedade da Informação* está estruturado em sete grandes linhas de ação:

- a) mercado, trabalho e oportunidades;
- b) universalização dos serviços e formação para a cidadania;
- c) educação na sociedade da informação;
- d) conteúdos e identidade cultural;
- e) governo ao alcance de todos;
- f) P&D, tecnologias-chave e aplicações;
- g) infra-estrutura avançada e novos serviços.

Cada linha de ação tem seus próprios mecanismos de execução que incluem parcerias com o setor privado e cooperação internacional, em combinações apropriadas à natureza de cada atividade. A fase de implantação, que se iniciou em 2000 e continua neste ano, compreende três momentos: a elaboração de uma primeira proposta detalhada do programa, o chamado *Livro Verde*; amplo processo de consulta à sociedade e consolidação, em um *Livro Branco*, de um plano definitivo de atividades para o programa, gerado a partir da incorporação ao *Livro Verde* das idéias e opiniões colhidas na consulta pública.

<sup>10</sup> "A Lei Geral de Telecomunicações (LGT), de 16/07/1997, considera serviço público- para o qual se exige universalização- apenas o serviço telefônico fixo comutado. A lei não abrange a telefonia móvel celular, nem a comunicação de dados, nem a Internet. A inclusão formal e concreta do acesso à Internet no conceito de universalização ainda é um enorme desafio para a sociedade brasileira". *Sociedade da Informação no Brasil- Livro Verde* (2000: 36).



A primeira dessas medidas foi a aprovação do Código de Conduta da Alta Administração Federal<sup>13</sup>, que tem como principais objetivos:

- a) tornar claras as regras éticas de conduta da Alta Administração Pública Federal, para que a sociedade possa aferir a integridade e lisura do processo decisório governamental;
- b) contribuir para o aperfeiçoamento dos padrões éticos da Administração Pública Federal;
- c) preservar a imagem e a reputação do administrador público;
- d) estabelecer regras básicas sobre conflitos de interesses públicos e privados e limitações às atividades profissionais posteriores ao exercício do cargo público;
- e) minimizar a possibilidade de conflito entre o interesse privado e o dever funcional das autoridades públicas;
- f) criar mecanismo de consulta destinado a possibilitar o prévio e pronto esclarecimento de dúvidas quanto à conduta ética do administrador.

Este último ponto remete diretamente a uma das principais funções de *e-governo* mencionada acima, que é a de promover maior *accountability* na gestão pública. Este também é o objetivo das demais medidas do *Brasil Transparente*, que consistem em duas propostas de mudanças legais- uma emenda constitucional e uma lei complementar- destinadas a reforçar os mecanismos de responsabilização, de controle interno e externo sobre a gestão dos recursos públicos e de controle social.

A responsabilização só pode ser atingida, com efeito, por meio de normas legais mais claras e precisas sobre a aprovação de despesas no orçamento e sobre a prestação de contas ao final de cada exercício financeiro. Como os três poderes- executivo, legislativo e judiciário- possuem autonomia administrativa na gestão dos seus recursos assegurada pela Constituição, é fundamental aperfeiçoar ainda mais os mecanismos e as instâncias de aprovação e acompanhamento das despesas.

De igual modo, deverão ser fortalecidos tanto o controle interno, no âmbito de cada poder, quanto o controle externo, realizado pelos Tribunais de Contas, que com estas medidas terão condições de agir com muito mais eficácia no combate às irregularidades.

Deste modo, o Anteprojeto de Emenda à Constituição propõe regras para a prestação de contas, a atuação integrada entre os órgãos de controle, o fortalecimento técnico e institucional dos Tribunais de Contas e a responsabilização solidária dos dirigentes dos Tribunais em relação ao processo orçamentário, no âmbito do poder judiciário. Os pontos mais relevantes do anteprojeto, no que concerne ao tema do governo eletrônico, são:

- **integração entre os órgãos de controle:** determina a articulação entre os órgãos de controle interno dos três Poderes. Eles terão prazo de 30 dias para dar ciência ao Tribunal de Contas da União e ao Ministério Público das irregularidades na gestão dos recursos públicos de que tomarem conhecimento. Essas regras são extensivas aos estados, municípios e Distrito Federal;
- **controle social:** prevê o controle social das contas públicas, permitindo o acesso da sociedade às contas por meio da Internet, sendo que este canal poderá ser usado para recebimento de denúncias de irregularidades. Fixa prazos de apuração e divulgação das conclusões sobre as denúncias.

Como se observa facilmente no Anteprojeto de Emenda à Constituição, os princípios de transparência fiscal e controle social direto, facilitados pela expansão do governo eletrônico, são alçados a nível constitucional. Mais detalhes aparecem no Anteprojeto de Lei Complementar, que trata dos princípios e mecanismos de controle dos orçamentos e da prestação de contas anual, aplicando-se à União, estados, municípios e Distrito Federal.

<sup>13</sup> As normas deste código se aplicam às seguintes autoridades públicas: Ministros e Secretários de Estado; titulares de cargos de natureza especial e secretários-executivos; presidentes e diretores de agências nacionais, autarquias, fundações mantidas pelo Poder Público, empresas públicas e sociedades de economia mista.

*Obrasnet* reunirá informações sobre todas as etapas da obra- projeto inicial, indicadores de custos, pareceres técnicos do controle interno e externo. O sistema disporá ainda de um banco de dados com informações sobre preços de mercado, que servirá de parâmetro para a correta avaliação e definição de custos de obras públicas.

Finalmente, o *Brasil Transparente* também se insere no esforço nacional de ampliar o acesso à Internet, trazendo menção explícita a dois aspectos fundamentais da questão, qual sejam a redução de custos da Internet (estão previstos vários estudos) e o aumento dos pontos públicos de acesso.

Vale aqui lembrar que para que a Internet possa cumprir o papel de auxiliar na construção de uma gestão pública participativa e transparente, é fundamental a existência de um sistema de contabilidade pública bem organizado, que registre todas as transações fiscais e parafiscais de modo apropriado. Sem este pré-requisito, a prestação de contas será deficiente, quer por mecanismos tradicionais de comunicação, quer via Internet.

De fato, esta tem sido uma preocupação de vários países, que para isso contam, por exemplo, com iniciativas como o *Manual de Transparência Fiscal* e o *Código de Boas Práticas para a Transparência Fiscal* do Fundo Monetário Internacional.

O manual não apresenta instruções específicas sobre como implementar as boas práticas, mas fornece numerosas referências e endereços na Internet que podem ser úteis na implementação prática do Código. Segundo o manual, "A informática também pode desempenhar uma função importante na eliminação de oportunidades para a tomada de medidas discricionárias, bem como para permitir o monitoramento eficaz de atrasos, isenções, recursos e pagamentos. (...) Os sistemas computadorizados também devem permitir a troca instantânea de informações entre as administrações fiscais, respeitadas as disposições de confidencialidade e as restrições jurídicas de cada país". (p. 25) Nenhum dos dois documentos, porém, faz menção explícita ao papel do *e-governo*.

Nesta matéria, pode-se, portanto, concluir que o Brasil está em posição de relativo avanço, o que é confirmado pela aprovação no ano passado da Lei de Responsabilidade Fiscal. Trata-se, como se sabe, de um código de conduta para administradores públicos de todo o país, que vale para os três poderes (executivo, legislativo e judiciário), nas três esferas de governo (federal, estadual e municipal). A Lei fixa limites para despesas com pessoal, para dívida pública e ainda determina que sejam criadas metas para controlar receitas e despesas. Além disso, segundo a Lei, nenhum governante pode criar uma nova despesa continuada (por mais de dois anos), sem indicar sua fonte de receita ou sem reduzir outras despesas já existentes. Pela LRF ainda, são definidos mecanismos adicionais de controle das finanças públicas em anos de eleição.

Uma das grandes inovações da Lei é a participação dos cidadãos no controle das ações dos governantes. Com efeito, o próprio processo de elaboração da Lei envolveu uma consulta pública, realizada através da Internet, onde foram registrados mais de 5000 acessos.

A Lei determina que o acesso público às contas deve ser amplo, inclusive por meio eletrônico, via Internet. Mais precisamente, de acordo com a Lei de Responsabilidade Fiscal, cada governante terá de publicar a cada quatro meses o *Relatório de Gestão Fiscal*, que vai informar, em linguagem simples e objetiva as contas da União, estados, municípios e Distrito Federal, do Ministério Público e dos Poderes legislativo, executivo e judiciário de todas as esferas de governo.

A Lei de Responsabilidade Fiscal não apenas representa um enorme avanço na forma de administrar os recursos que os contribuintes põem à disposição dos administradores públicos, mas também instaura uma nova cultura fiscal no país. E isto passa, evidentemente, pelo desenvolvimento e consolidação do *e-governo* nos três níveis da Federação.

e iniciativas das mais relevantes tenham surgido ligando vários ministérios e departamentos, só agora, com o *Br@sil.gov*, a interoperabilidade aparece como uma política de governo prioritária.

O governo federal diagnosticou que, atualmente, existe um enorme descompasso entre os órgãos no ritmo de implantação de soluções de integração. Por outro lado, as redes são isoladas, não podendo muitas vezes comunicar-se entre si, dada a falta de padronização e a falta de regulamentação da autenticação de documentos eletrônicos. Na prática, isto significa que para atingir o estágio 4 acima descrito (convergência para um portal de informações e serviços únicos), um grande esforço de integração destas redes terá de ser feito, além, é claro, do desenvolvimento e aprovação do quadro jurídico-institucional adequado.

No que diz respeito precisamente aos aspectos legais da questão, pode-se dizer que o Brasil tem avançado significativamente nos últimos anos. Além do Decreto de criação do Comitê Executivo do Governo Eletrônico, vários outros decretos e leis foram aprovados recentemente visando a montar o arcabouço legal do *e-governo* no país. Entre eles, a Lei 9.983, que define os crimes eletrônicos contra a administração pública; o Decreto 3.505, que estabelece a política de gestão da informação; o Decreto 3.585, que regula a tramitação de documentos por meio eletrônico, e o Decreto 3.587, que cria a infraestrutura de chaves públicas.

Os próximos passos, no que concerne às medidas legais, são, de um lado, a viabilização da certificação e da assinatura eletrônicas e, de outro, a elaboração de um projeto de lei que assegure a validação dos documentos eletrônicos.

Com estes fundamentos jurídicos bem consolidados será possível atingir as metas estabelecidas para os próximos dois anos. O Plano de Metas – 2000-2002 para o Governo Eletrônico no Brasil compreende dois conjuntos de metas: a) metas voltadas para o cidadão/cliente e empresas e b) metas para a gestão interna do governo.

Metas para o cidadão/cliente e empresas:

- popularização do acesso à Internet;
- aperfeiçoamento das políticas de divulgação de informações e de prestação de serviços via Internet;
- consolidação da Rede Nacional de Informações em Saúde;
- unificação dos diversos cartões (previdência, saúde, etc) no Cartão do Cidadão;
- criação do Catálogo de Informações;
- instalação de PEP's<sup>15</sup> nas representações do governo federal;
- PEP's instalados em todas as localidades com mais de 600 habitantes;
- Programa de Informatização das Ações Educacionais;
- criação do Portal de Apoio à Procura de Emprego.

Por sua vez, são metas para a gestão interna do governo:

- efetivação do Comitê Executivo do Governo Eletrônico;
- orientação e padronização para o desenvolvimento de *sites*;
- criação da Infra-estrutura de Chaves Pública;
- inventário dos recursos disponíveis atualmente de tecnologias de informação e comunicação (TCI);
- individualização no orçamento dos recursos de TCI;
- consolidação do sistema de pregão eletrônico e dos outros sistemas de compras governamentais;
- desenvolvimento do Sistema de Informações Estratégicas;
- divulgação de Modelos de Referência para a Contratação de Redes;

<sup>15</sup> Ponto Eletrônico de Presença – PEP- é o local onde redes inteiras ou máquinas individuais conectam-se a uma rede maior ou *backbone*.

Seria impossível descrever nos estreitos limites desse trabalho tudo o que já existe a nível federal em termos de *e-governo*; ainda mais considerando a enorme diversidade dos órgãos, fundações, universidades públicas, autarquias, empresas publicas e outras unidades da administração pública direta e indireta federal. Vale a pena, entretanto, mencionar algumas experiências importantes pelo seu caráter inovador e pelo seu êxito indiscutível.

*Rede Governo* (<http://www.redegoverno.gov.br/>)

O *Rede Governo* é o portal de entrada para todas as páginas do governo federal na Internet<sup>16</sup>. A sua implantação teve início em 1995, quando a prestação de serviços governamentais pela Internet era ainda não mais que uma promessa. O portal ([www.redegoverno.gov.br](http://www.redegoverno.gov.br/)), oferece conexões diretas com 641 páginas de serviços e 3.683 *sites* de informações, distribuídos em 31 grandes grupos temáticos. Dispõe ainda de ferramentas de pesquisa em assuntos variados da administração pública.

Atualmente, os órgãos que disponibilizam mais informações e serviços são, em ordem decrescente, aqueles ligados à educação, à fazenda, ao poder judiciário, à previdência social, às comunicações, à justiça, à minas e energia, ao planejamento e ao trabalho. Infelizmente, os serviços, que muitas das vezes ainda não são efetivamente realizados em tempo real, estão muito concentrados nestas poucas áreas.

Além de procurar resolver essas dificuldades, o governo federal vai fortalecer e ampliar o seu portal de serviços, tornando-o mais conhecido e incentivando a sua utilização pela população, através de grandes campanhas publicitárias e instalações de Pontos de Presença e infoquiosques nas repartições públicas federais.. O *Rede Governo* será, então, efetivamente, o grande canal de acesso a todos os serviços, assegurando padrões de funcionalidade e confiabilidade da informação, com funcionamento durante as 24 horas do dia, nos sete dias da semana e além disso, protegido contra invasões ilegais e outros crimes eletrônicos. Legislação sobre a privacidade das informações fornecidas pelos usuários já está sendo preparada nesse sentido.

É importante destacar que muitos serviços estarão sendo ampliados e aperfeiçoados. São serviços tais como a consulta à situação do contribuinte perante a Receita Federal, a solicitação de passaportes, o acesso aos saldos das contas do Fundo de Garantia por Tempo de Serviço (FGTS), o conhecimento dos avisos de licitações governamentais, o cálculo do tempo para aposentadoria, o acesso à lista de medicamentos genéricos, informações sobre as condições das estradas do país, a divulgação de concursos públicos e de oportunidades de trabalho no setor privado, consultas processuais, bibliotecas virtuais, diários oficiais, etc.

Além da oferta de serviços, a Internet também deverá, como vimos, ser o canal privilegiado para o exercício do controle social pelo cidadão. Os sistemas de gestão e de controle da administração federal, em áreas como orçamento, finanças e compras e contratações, já dispõem de *sites* na Internet, acessíveis pelo portal *Rede Governo*. O governo está atualmente implantando serviços de acesso direto às informações sobre a gestão dos recursos públicos e de recepção de denúncias e de solicitações de informação. Dessa forma, o portal *Rede Governo* deverá se consolidar como o principal canal para a interação entre o cidadão e o governo.

*Imposto de Renda* (<http://www.receita.fazenda.gov.br/>)

A informatização do imposto de renda no Brasil iniciou-se em 1964 e praticamente coincide com o início das atividades do Serviço Federal de Processamento de Dados (SERPRO). No princípio, a

<sup>16</sup> Para uma comparação com outros portais governamentais de prestação de informações e serviços, além do já citado portal de Singapura (<http://www.ecitizen.gov.sg/>), ver também, entre outros, os portais do Reino Unido (<http://www.open.gov.uk/>) e dos Estados Unidos (<http://www.firstgov.gov/>).

Por fim, será adotado, em breve, o *cartão de crédito do governo*. Ele será usado, como já acontece em outros países, para compras de passagens aéreas em condições mais vantajosas para a administração federal, porque dispensa o tradicional sistema de faturamento. Além disso, o cartão será empregado para a realização de despesas com suprimento de fundos, substituindo o cheque. O suprimento de fundos é uma modalidade de compras de pequeno valor, realizadas pelos "ordenadores de despesa"<sup>17</sup>, quando a implementação de algum projeto ou atividade da administração pública requer a pronta aquisição do bem ou serviço. Nestas situações, a utilização do cartão permite ainda um controle mais ágil e detalhado da despesa.

Vale ressaltar, que o *Comprasnet* e as outras iniciativas de compras governamentais só puderam ser implantadas, porque vários sistemas estruturadores haviam sido antes desenvolvidos no âmbito do governo federal. Em primeiro lugar, o SIASG (Sistema Integrado de Administração de Serviços Gerais).

O SIASG foi instituído por um decreto de 23/04/1994 e foi definido como uma ferramenta informatizada para operacionalizar o funcionamento sistêmico das atividades de gestão de materiais, serviços, edificações públicas, veículos oficiais, comunicações administrativas, licitações e contratações, atribuídas e concentradas em um outro grande sistema do governo federal, o SISG (Sistema de Serviços Gerais).

O SIASG, atualmente, é formado por vários módulos que foram sendo construídos e aperfeiçoados ao longo do tempo:

- em 1991, quando o sistema ainda não havia sido formalmente constituído, foi criado um Sistema de Catalogação de Material e Serviço com o objetivo de definir padrões de qualidade para os materiais e serviços adquiridos pelo governo;
- entre 1994 e 1995, foram desenvolvidos e implantados em escala nacional o COMUNICA e o SICAF. O COMUNICA propicia e agiliza a troca de informações entre as unidades integrantes do SIASG. O SICAF é um sistema operado *on-line* que cadastra e habilita as pessoas físicas e jurídicas interessadas em participar das licitações promovidas pelos órgãos e entidades integrantes do SISG;
- entre 1997 e 1999, foram desenvolvidos o SIDEC, SIREP e o SICON. O SIDEC oferece rotinas automatizadas para a publicação dos avisos de licitações na Imprensa Oficial. O SIREP atende às consultas dos gestores públicos sobre preços praticados nas licitações realizadas no âmbito do SISG. O SICON registra e acompanha os contratos firmados pela administração federal;
- em 2000, foi concluída a implantação do módulo EMPENHO que possibilita a geração automática de minutas de empenho de forma interligada com o SIAFI.

Por sua vez, o SIAFI- Sistema Integrado de Administração Financeira do Governo Federal- foi desenvolvido em 1986 e implantado em janeiro de 1987, visando a suprir o governo federal de um instrumento moderno e eficaz no controle e acompanhamento dos gastos públicos.

Depois de ter sido aperfeiçoado ao longo de mais de uma década de existência, atualmente, o SIAFI é um sistema *on-line* que se constitui no principal instrumento de administração orçamentária e financeira da União, provendo os órgãos centrais, setoriais e executores da gestão pública de mecanismos adequados à realização, ao acompanhamento e ao controle da execução orçamentária e financeira, tornando a contabilidade fonte segura de informações gerenciais.

Sem o desenvolvimento prévio e o aperfeiçoamento de todos esses sistemas, o governo federal não poderia levar hoje adiante os diversos projetos pioneiros no campo das compras governamentais, ou *e-procurement* governamental.

<sup>17</sup> *Ordenadores de Despesa* são servidores encarregados da realização dos gastos e prestação de contas.

já é considerável, tendo, muitas vezes, até mesmo atingido estágios relativamente avançados de *e-governo*.<sup>21</sup>

## 1. Municípios

No que diz respeito ao nível municipal, em uma pesquisa recente, realizada a partir de uma amostra de 83 municípios dos estados de São Paulo, Minas Gerais e Santa Catarina, estimou-se que 72% das prefeituras com mais de 200 mil habitantes já devem estar utilizando a rede para serviços e informações à população.<sup>22</sup> A complexidade e a qualidade das informações prestadas aos usuários variam muito entre os *sites* e relativamente poucas prefeituras prestam serviços efetivamente em tempo real.

Contudo, muitos municípios, especialmente capitais e os de regiões metropolitanas, já estão preparados para receber dados dos usuários, atingindo os estágios dois e três descritos acima. É o caso, por exemplo, do *site* da Prefeitura de Manaus (<http://www.pmm.am.gov.br/>). Lá existe o SACnet, onde o contribuinte, através, de uma senha, consulta, tira dúvidas, atualiza dados cadastrais e acompanha processos junto à prefeitura. Serviço semelhante é oferecido por outras prefeituras, como a do Rio de Janeiro (<http://www.rio.rj.gov.br/>) e de Porto Alegre (<http://www.portoalegre.rs.gov.br/>). Neste último *site*, entre outras coisas, é possível ainda realizar boa parte dos procedimentos para a obtenção de alvará, notificar um óbito e acionar um serviço funerário, acompanhar o tráfego da cidade, avisar sobre uma fuga de água, calcular o IPTU e obter a guia eletrônica para recolhimento do ICMS (que, contudo não pode ainda ser entregue via Internet).

No *site* da Prefeitura do Rio, é possível pedir certidões via *e-mail* ou ainda solicitar, via Internet, o serviço de um electricista, bombeiro hidráulico, pintor, técnico de geladeira, etc, do *Programa de Apoio do Trabalhador Autônomo*.

Em Vitória (<http://www.vitoria.es.gov.br/>) é possível solicitar eletronicamente serviços, tais como, poda de árvores, desobstrução de bueiros, cálculo de tributos devidos e parcelamento da dívida, envio de livros editados pelas secretarias da cultura e do esporte, etc. Solicitação de audiências com o prefeito também podem ser feitas pela Internet, bem como vários tipos de denúncias. O *site* de Vitória mantém um serviço de ouvidoria da prefeitura e traz ainda uma página com informações sobre as compras municipais e licitações.

A Prefeitura de Betim (<http://www.betim.mg.gov.br/>) está instalando um portal em que o usuário procura os serviços por tema, recebe um passo a passo para obter o que deseja, com indicações de quais etapas pode realizar imediatamente, *on-line*. Uma vez efetivamente implantado este portal terá atingido, na prática, a fase 3 descrita acima.

Estes são apenas alguns exemplos de *sites* e portais municipais. Na verdade, o grande problema, a nível municipal, são as pequenas localidades. Uma boa parte dos 5507 municípios brasileiros ainda não dispõem sequer de sistemas administrativos informatizados, apesar do grande esforço do governo federal e de outras instituições para acelerar a modernização da gestão municipal.<sup>23</sup> Esta questão é crucial, considerando a importância do nível local na alfabetização digital dos cidadãos. Sem o desenvolvimento de uma cultura local favorável à absorção das novas tecnologias da informação e sem a criação de postos locais de acesso à rede, muitos habitantes de pequenos municípios estarão simplesmente alijados da chamada Nova Economia, sem falar no considerável prejuízo ao exercício pleno da cidadania.

<sup>21</sup> Para uma comparação com a situação norte-americana, ver *Assessing E-government: the Internet, Democracy, and Service Delivery by State and the Federal Governments*, West (2000).

<sup>22</sup> Ver «E-Gov: a Nova Fronteira da Internet», em *O Prefeito*, 17 de julho de 2000.

<sup>23</sup> Esta tem sido também uma preocupação do BNDES, que desde de 1997 dispõe de uma linha de crédito (PMAT- Programa de Modernização da Administração Tributária e da Gestão dos Setores Sociais Básicos) voltada para a modernização da administração tributária e dos setores sociais básicos dos municípios. (<http://www.bndes.gov.br/atuar/municip.htm>)

Pernambuco (<http://www.pernambuco.gov.br/>), além de informações para investidores potenciais e notícias sobre o governador, oferece alguns serviços da Secretaria de Fazenda, como a emissão de DAE (documentação de arrecadação estadual) virtual. Outros estados como Mato Grosso (<http://www.mt.gov.br/>) e Sergipe (<http://www.se.gov.br/>) têm portais relativamente simples, mas oferecem serviços *on-line* em áreas de alguma forma coordenadas pelo nível federal. No primeiro caso, além do pacote típico (notícias, agenda do governador, dados sócio-econômicos, estrutura de governo, etc), o *site* do Mato Grosso permite a consulta ao cadastro do Detran<sup>25</sup> para multas e infrações, licenciamento e outros serviços. Em Sergipe, por sua vez, além dos serviços ligados ao Detran, é possível acessar vários serviços fazendários através do Sintegra.<sup>26</sup>

Um estado merece aqui destaque, já que, além de serviços *on-line* fazendários permitidos pelo Sintegra ou relativos ao Detran, usa a Internet para desempenhar outra função de *e-governo* da máxima importância: a prestação de contas públicas. Trata-se do *site* do governo do Rio Grande do Norte (<http://www.rn.gov.br/>), que já apresenta os relatórios resumidos da execução orçamentária, conforme determina a Lei de Responsabilidade Fiscal.

Por fim, pode-se incluir também neste segundo nível de *e-governo* estadual, Rondônia e Amapá. Rondônia (<http://www.rondonia.ro.gov.br/>), embora tenha um *site* ainda muito simples, consistindo basicamente num grande banco de endereços eletrônicos, tem uma página especial denominada *Contas Públicas- Transparência*, onde as contas do estado são apresentadas à população. Além disso, um avanço que pode ser considerado ainda mais significativo, existe uma página especial sobre Lei de Responsabilidade Fiscal, que é usada pelo estado como meio para prestar assistência técnica aos municípios nesta matéria, com manuais e dicas de implantação da lei.

Finalmente, no grupo intermediário de *e-governo* estadual, pode ainda ser citado o caso do Amapá (<http://www.amapa.gov.br/>). Embora este estado também tenha um *site* relativamente simples (é inclusive um *site* que se apresenta não como um portal do governo, mas como o *site* da companhia de dados do estado) e trazer apenas serviços relacionados ao Sintegra, tem duas iniciativas que sinalizam já algum desenvolvimento na direção de uma atuação mais elaborada de *e-governo*.

Primeiro, para maior transparência, o governo estadual tem uma página chamada *Gestão do Dinheiro Público*, com demonstrativos sobre receitas, despesas e endividamento. Segundo, o Amapá desenvolve ainda uma iniciativa local muito criativa no que concerne à universalização do acesso à Internet: o *Projeto Navegar* (<http://www.amapa.gov.br/pnavegar-geral.htm>) Trata-se de uma embarcação regional, adaptada com equipamentos e acessórios de informática, conectados à Internet, via satélite, que procura integrar as comunidades da região ribeirinha do Arquipélago do Bailique, localizado a cerca de 150 km de Macapá nas proximidades da Foz do Rio Amazonas (aproximadamente 12 horas de transporte hidroviário bastante precário por causa das condições de navegabilidade). O objetivo principal da iniciativa é garantir o acesso às informações necessárias para o pleno desenvolvimento sustentável da região. Trata-se de um bom exemplo de como o governo pode, usando as novas tecnologias, integrar populações localizadas em regiões de difícil acesso.

<sup>25</sup> Na maior parte dos estados, o Detran já conta com serviços efetivamente *on-line*, que vão desde a consulta de multas até o agendamento eletrônico de vistoria.

<sup>26</sup> O Sintegra (<http://www.sintegra.gov.br/>), Sistema Integrado de Informações sobre Operações Interestaduais com Mercadorias e Serviços, consiste num conjunto de procedimentos administrativos e de sistemas computacionais compartilhados pelas administrações tributárias de vários estados. O sistema visa a simplificar e homogeneizar as obrigações relativas a compras, vendas e prestação de serviços interestaduais. Mais detalhes podem ser encontrados em *Governo Eletrônico e as Administrações Tributárias Estaduais Brasileiras: Evolução e Benchmark*, (UCP/PNAFE, 2000).

O *Rede Cidadão* paranaense tem também um balcão de empregos eletrônico e um serviço de consulta às bibliotecas do estado. Este último, chamado *Libr@rium*, também disponibiliza *softwares* grátis para a automação de bibliotecas.

Algumas iniciativas interessantes foram desenvolvidas na área de saúde. Entre julho de 1995 e fevereiro de 1996, a secretaria de saúde do estado implantou 11 centrais informatizadas de marcação de consultas especializadas e 13 para leitos e internações, com o objetivo de organizar a oferta e a utilização desses serviços pela clientela do Sistema Único de Saúde (SUS). Estas centrais funcionam com 13 centrais telefônicas, com aproximadamente 120 linhas telefônicas, 13 redes de processamento (servidores, micros e impressoras), operadas por cerca de 250 servidores. As centrais atendem também solicitações de consultas e internamentos das secretarias ou departamentos municipais de saúde, bem como de hospitais cadastrados na sua área de abrangência.

No Paraná, existe, ainda, uma rede de controle homoterápico, que conecta todas as 568 unidades homoterápicas, públicas e privadas, do estado e pode ser acessada pelo portal estadual. Na página do *Sangue no Paraná*, cada unidade pode solicitar ao órgão central responsável a impressão das etiquetas para as bolsas de sangue. Por meio da referência básica- o número da Etiqueta-bolsa, que é controlada pela Vigilância Sanitária- o sistema coleta as informações que contribuirão, posteriormente, entre outras coisas, para a rastreabilidade do sangue, investigação epidemiológica, análises estatísticas e controle e avaliação do pagamento de procedimentos homoterápicos.

Existe ainda um sistema de ouvidoria e informação, o *Telecidadão*, que funciona por meio de ligação telefônica gratuita e é estruturado a partir de central telefônica informatizada.

A experiência acumulada nesses anos de formação desta rede e, sobretudo, da de marcação centralizada de consultas e internações deverá servir de base para a disponibilização futura desses e outros serviços via Internet. De qualquer modo, pode-se dizer que, no caso da saúde, o conceito de *e-governo* já está bastante desenvolvido no Paraná, tendo-se alcançado provavelmente o limiar do estágio 4. Vários serviços, departamentos e unidades, de vários pontos do estado, foram informatizados e conectados em redes. Os processos de trabalho foram profundamente alterados *off-line* e o atendimento ao cidadão tornou-se mais rápido e eficiente.

*Bahia* (<http://www.bahia.ba.gov.br/>)

Na área de saúde, a Bahia também desenvolveu experiência interessante em atendimento centralizado informatizado. Trata-se do serviço *Disque Maternidade*, que visa a melhorar o atendimento nas principais maternidades da rede pública estadual de Salvador e região metropolitana e consiste em um sistema informatizado que liga os 10 principais hospitais da rede a uma única central telefônica. Quando a gestante começa a sentir as dores do parto, ela liga para a central e é encaminhada para a maternidade mais próxima. Em seguida, após o parto, um oficial de registro civil fornece a certidão de nascimento ao recém-nascido na própria unidade de saúde. Em outras palavras, a informatização do serviço, a interligação das unidades e o atendimento via telefone permitem não apenas que seja resolvido um problema que tem se mostrado difícil em outros estados- a busca de leitos em obstetrícia- mas possibilita também que o recém-nascido tenha seus direitos de cidadão assegurados desde as primeiras horas de vida.

Nesta iniciativa bem-sucedida de *e-governo*, tal como no caso paranaense do *Telecidadão* e do sistema de solicitação de consultas e internações descritos acima, o acesso ainda é por telefone, via uma unidade de *call center*. Mas a base está dada para uma migração futura para acesso direto via portal estadual.

De fato, na Bahia, existe um grande esforço para unificar o atendimento aos cidadãos em um único ponto. O SAC- Serviço de Atendimento ao Cidadão- é um sistema integrado de serviços públicos, funcionando no estado desde 1995. Os postos SAC reúnem em um mesmo espaço físico vários órgãos e entidades das esferas federal, estadual e municipal. Além disso, existem áreas apropriadas para a espera e serviços de apoio: fotocópia, posto bancário, foto, etc.



Por meio do SIAFÍSICO, a Coordenadoria Estadual de Controle Interno pode checar os distintos preços praticados na aquisição de um mesmo item e, com isso, averiguar os casos onde há uma discrepância muito grande. Para que isso fosse possível, porém, foi necessário criar um cadastro de materiais e serviços (que uniformiza os itens de compra) e um cadastro de fornecedores (que dá maior transparência ao processo de compra e evita o favorecimento de um fornecedor).

A adesão de praticamente todos os órgãos da administração pública ao SIAFÍSICO permite que o monitoramento dos preços praticados no setor seja bastante amplo. Cada órgão público possui uma dotação orçamentária e as compras são feitas de forma descentralizada. Um regime de conta única, porém, obriga que todos eles registrem todas as transações em um mesmo sistema.

Mais recentemente, São Paulo inaugurou a Bolsa Eletrônica de Compras, um sistema para compras limitadas até R\$ 8.000, que estão dispensadas de licitação. No momento estão inscritos 28 mil fornecedores para disputar 88 mil itens.

Somadas às compras por cartão eletrônico, o montante negociado pelo estado pode chegar a R\$ 1 bilhão.<sup>27</sup> De fato, um dos principais objetivos de todos estes esforços (além, é óbvio, de aumentar a transparência e a lisura das transações) é tirar proveito deste enorme poder de compra do governo para reduzir custos.

Todas estas iniciativas em São Paulo só foram possíveis porque desde meados da década de 90, o estado vem passando por um processo de intensa modernização administrativa. A modernização da Secretaria de Fazenda do Estado permitiu que, em 1996, fosse iniciada a digitalização do relacionamento entre contribuinte e Estado.

São Paulo também é modelo em termos de portal governamental. Recentemente inaugurado, o novo portal do estado (<http://www.saopaulo.sp.gov.br/>) traz informações e serviços em tempo real, organizados por temas. Destacam-se as páginas relativas à prestação de contas (todos os relatórios da execução orçamentária já conforme a Lei de Responsabilidade Fiscal) e as páginas voltadas para as crianças e jovens, que propõem serviços variados, que vão desde a educação sexual até a inserção profissional de jovens no mercado de trabalho. O sistema *Jovem Cidadão- o Primeiro Emprego* oferece vagas para jovens, conectando, via Internet, empresas, escolas e o governo. O portal de São Paulo é, sem dúvida, modelo de excelência e em muitos aspectos (como por exemplo interface gráfica simplificada e amigável, velocidade e facilidade de acesso à informação desejada) está até à frente do portal do governo federal.

*Santa Catarina* (<http://www.sc.gov.br/>)

Embora o portal de Santa Catarina seja um pouco mais simples que os dos estados mais desenvolvidos em *e-governo*, ele merece estar incluído neste grupo pela experiência pioneira na área de educação. Neste domínio, onde os esforços de adaptar as novas tecnologias às práticas governamentais têm recebido ainda pouca atenção, Santa Catarina tem um exemplo interessante na criação e desenvolvimento da *Net Escola*.

A *Net Escola* é o resultado de um conjunto de inovações tecnológicas que tem como objetivo democratizar as informações educacionais da rede estadual de ensino. As informações, disponíveis pela Internet para a consulta de todos os cidadãos, referem-se a :

- i) dados cadastrais e escolares dos alunos,
- ii) dados cadastrais das escolas e coordenadorias regionais de educação,
- iii) estatísticas escolares.

<sup>27</sup> Este valor foi fornecido recentemente pelo Secretário de Fazenda do estado de São Paulo. Ver *Governos economizam com leilões on-line*, *Gazeta Mercantil*, 2/10/2000.

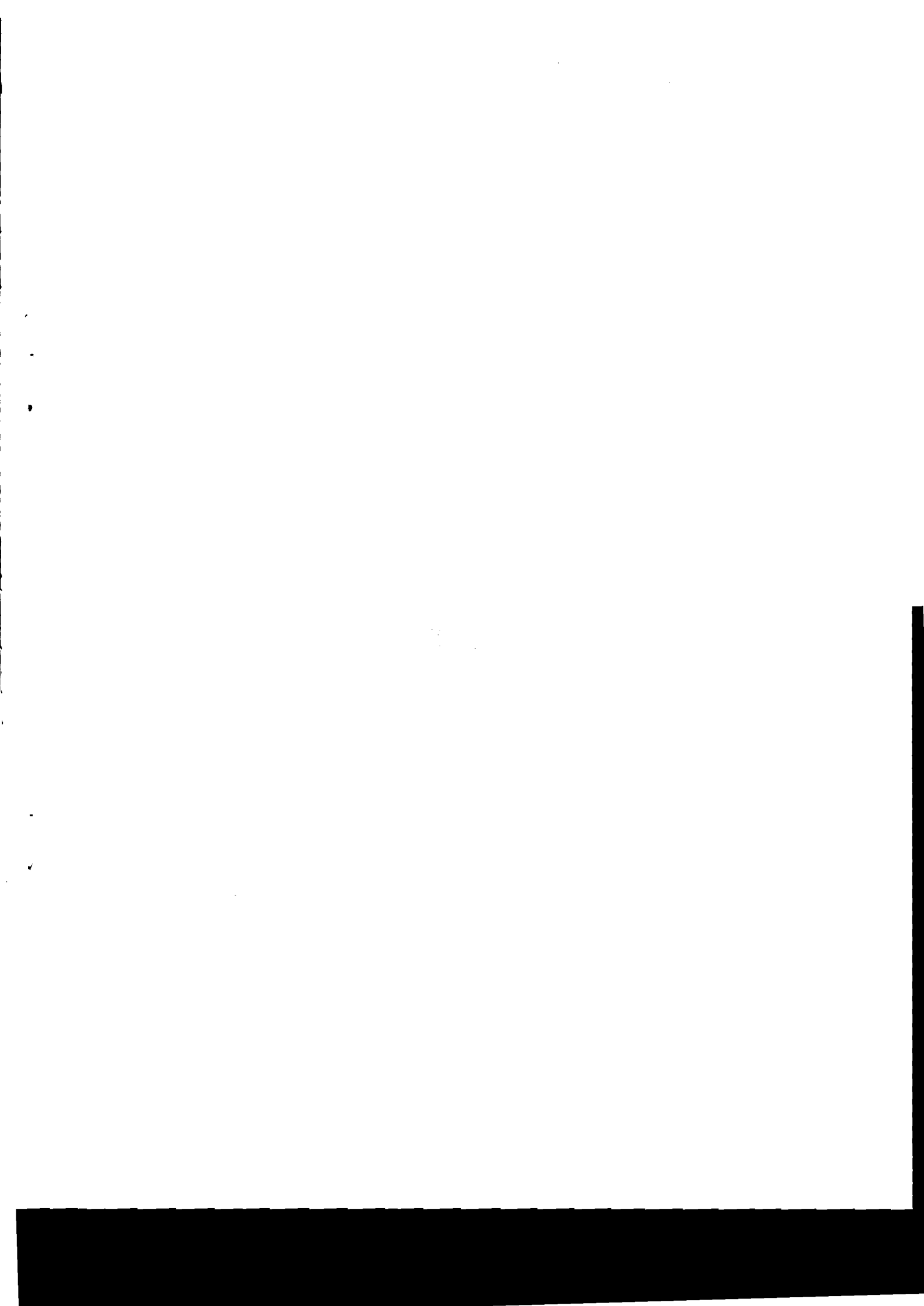
estágio 4 possa ser alcançado. Em outras palavras, todo cidadão deve ter acesso na Internet a um serviço de qualidade, sem se preocupar com que órgão e que nível de poder resolverá o seu problema.

Isto só será possível se for realizada com êxito a modernização da administração pública, especialmente de estados e municípios. Programas como o PMAT do BNDES são, com efeito, pedra angular desse processo, e deverão ser reforçados. Como para os outros aspectos da questão, cabe ao governo federal, também no que concerne ao financiamento, estabelecer uma política ordenada, mas sem implantação centralizada, respeitando o ritmo e as prioridades locais.

Além disso, do outro lado da linha, está a alfabetização digital da população, sem a qual a infoexclusão virá somente reforçar as demais graves desigualdades da sociedade brasileira. De fato, fomentar a universalização de serviços públicos eletrônicos “significa conceber soluções e promover ações que envolvam desde a ampliação e melhoria da infra-estrutura de acesso até a formação do cidadão, para que, informado e consciente, possa utilizar os serviços disponíveis na rede”. (*Livro Verde*: 31)

Em outras palavras, de um lado será necessário aumentar os Pontos de Presença (PEP's) e criar soluções de telecentros e infoquiosques. De outro, contudo, não se pode negligenciar o enorme esforço que será necessário para educar a população para a utilização consciente e responsável das novas tecnologias de informação e comunicação.

Concluindo, pode-se dizer, como no *Livro Verde*, que “o governo, nos níveis federal, estadual e municipal, tem o papel de assegurar o acesso universal às tecnologias de informação e comunicação e a seus benefícios, independentemente da localização geográfica e da situação social do cidadão, garantindo níveis básicos de serviços, estimulando a interoperabilidade de tecnologias e redes. Além disso, cabe ao governo estimular e viabilizar a participação de minorias sociais e outros segmentos marginalizados, os pequenos negócios, bem como as organizações sem fins lucrativos, de modo a que esses segmentos possam ter acesso aos benefícios que a sociedade da informação possa proporcionar. Cabe ainda estabelecer condições equânimes de competição entre os diferentes agentes econômicos, sem inibir as iniciativas de investimento e de novos negócios e implementar não só políticas públicas, mas também um aparato regulador e legal, harmônico e flexível, que proteja os interesses dos cidadãos e estimule o desenvolvimento do setor privado”. (*Livro Verde*: 11)



applied when no comparable uncontrolled transactions could be easily identified. The nature of the information required by this method makes it more subjective and difficult to apply than the other methods. The residual analysis is similar to the contribution analysis although it requires the existence of highly profitable intangibles. Mexico considers the residual analysis as a separate method called the Residual Profit Split method.

## **2. TNMM**

The TNMM starts from the premise that ideally transactions are analyzed individually and that each level of aggregation must be justified. The TNMM examines the net profit margin relative to an appropriate base (*e.g.*, sales, costs, assets). Net profit margins are less affected by transactional differences than the price used in the CUP and are more tolerant to functional differences than gross profit margins. In most cases, the related party being evaluated should not own intangible property or unique assets that distinguish it from unrelated comparable companies. The degree of comparability affects the reliability of the TNMM analysis. Ideally, the operating profit that a taxpayer obtains from the controlled transaction should be established by reference to the operating profit that the taxpayer obtains in comparable uncontrolled transactions. If no such comparison is possible, the operating profit earned in third party comparable uncontrolled transactions may serve as a reliable reference.

The OECD Guidelines criticize the use of the global formulary apportionment method<sup>6</sup> (such as the approach currently followed in Brazil) but acknowledge that a proportional apportionment formula that takes into consideration the taxpayer's facts and circumstances that could be agreed between a taxpayer and tax administration when other recognized methods could not be applied.

## **E. Administrative Approaches**

The OECD Guidelines address various administrative issues related to avoiding and resolving transfer pricing disputes.

### **1. Examination Practices**

The OECD Guidelines encourage tax administrations to be flexible in their transfer pricing approaches and not demand from taxpayers an unrealistic precision on their transfer pricing results. The OECD Guidelines also encourage tax administrations to initiate their transfer pricing analysis from the perspective of the method that the taxpayer has selected in setting its prices.

### **2. Penalties**

The OECD Guidelines strongly recommend that the primary objective of civil tax penalties be to promote compliance.

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<sup>6</sup> The global formulary apportionment method allocates global profits among associated enterprises on the basis of a predetermined, mechanical formula. Formulary apportionment differs from the transactional profit methods in that under the formulary approach profits are allocated on a global basis, whereas the profit methods compare profits on a case-by-case basis, considering the profits that comparable independent enterprises would have obtained under similar circumstances.

APA (*e.g.*, to resolve transfer pricing issues expeditiously, to use the resources of the taxpayer and the tax administration more efficiently and to eliminate double taxation). The annex also describes the process of obtaining an APA: whether it is possible for a taxpayer to apply for an APA; the request and finalization of an APA; and monitoring taxpayer compliance with the terms and conditions in the APA.

Of the countries considered in this report, Brazil, Mexico and the United States make provisions for APAs, but neither Argentina nor Venezuela authorize the use of APAs.

## II. Argentina

### A. Legislation and Regulations

Since the transfer pricing law was introduced in December 1998, the tax authorities have only issued two sets of guidance on how the law should be applied. A resolution issued in October 1999 requires taxpayers to file a new form, Form 662, outlining their intercompany transactions and to maintain documentation to support their transfer prices.<sup>7</sup> The second resolution issued in November 2000<sup>8</sup>.

According to recent amendments, taxpayers engaged in transactions with related parties must file an annual tax return (from the tax year ending December 31, 2000 and onwards, bi-annual tax returns will be required).

#### 1. Definition of Related Parties

The regulations impose an expansive definition of related parties. The transfer pricing rules are triggered if any of the following circumstances exist:

- One entity, directly or indirectly, controls another party with which it engages in transactions;
- The entities that engage in transactions are under the common control of a third entity (*i.e.*, brother-sister companies);
- A person (*i.e.*, an individual or legal entity) owns all or a controlling part of the capital of another person;
- A person fully owns or has the majority interest in another person;
- An individual or legal entity has a sufficient number of votes to control the corporate will or to prevail in shareholders meetings or over another taxpayer's partners. The presence of common directors, common executive officials, and common managers indicates related party status;
- A person has the authority to act for another person, such as through a trust or as the exclusive agent or distributor for the purchase or sale of goods, assets, services or rights;
- A person licenses proprietary or technological information even if the licensor and licensee are unrelated;
- An entity substantially participates in the formation of another party's business or in the supply of raw materials to, or the trading or marketing of another business.

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<sup>7</sup> General Resolution 702 dated October 15, 1999.

<sup>8</sup> Decree 1037/2000 issued by the Executive branch on November 9, 2000, and published in the Official Gazette on November 14, 2000.

Two or more individuals or legal entities can be viewed as related in a number of circumstances. For example, a common control relationship between parties may result in related party status. There are three aspects to a common control relationship: (1) where an individual or entity has the whole or a majority interest in the capital of two or more other entities; (2) where a person has control over two or more businesses; or (3) where the person has a significant simultaneous influence over two or more entities.

Parties that share a participation with another party are treated as related even if the relationship is through a condominium, joint venture, group or assembly with no legal existence if a party exerts a significant influence on the price-setting process. Contract terms can indicate related party status when the parties undertake preferential contractual clauses, such as for discounts, funding, delivery or other terms.

A person that is a single supplier, single customer or single vendor in relation to another party is not independent of that party under the Argentine rules. A party that funds another through loans or guarantees is not independent of that other party. A taxpayer that assumes another party's obligations, losses or expenses is not independent of that party nor is an entity independent of a second entity if the second entity gives instructions to directors, executives or managers of the first entity or if the first entity acts in the best interest of the second entity. Shifting management or stewardship to an individual or legal entity that has a minority interest may destroy independence.

## ***2. Low-Tax Jurisdictions***

As mentioned above, the Argentine transfer pricing rules capture transactions with entities located in tax havens by presuming that such transactions are related party transactions, regardless of whether the parties actually are related. As originally drafted, the tax haven rules relied on cumbersome and confusing criteria to determine whether a jurisdiction qualified as a low-tax jurisdiction.<sup>9</sup> Amendments issued in November 2000, however should provide some clarity since the tax authorities have issued a list of 84 countries and territories deemed to be tax haven jurisdictions. Any transactions with entities in these jurisdictions will be deemed not to be at arm's length and are subject to the scrutiny of the Argentine tax authorities.

## ***3. Transfer Pricing Methodologies***

While the Argentine legislation is in many respects similar to the U.S. rules, it is clear that the actual Spanish language was taken from articles 64-A and 65 of the Mexican Income Tax Law as well as relevant Miscellaneous Tax Provisions (MTP). The Argentine rules provide for the same methodologies set forth in the Mexican legislation and the OECD Guidelines: CUP, RP, CP, PSM, residual profit split and TNMM which, depending on the level of aggregation of transactions, is equivalent to the CPM frequently used in the Under Law 25,063 applicable during 1999 and 2000 with the exception of taxpayers with year end on December 31, 2000 the residual profit split was a valid method. For tax years ending on December 31, 2000 and onwards the new Law 25,239 eliminated the residual profit split.

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<sup>9</sup> The regulations defined a low-tax jurisdiction as a country, which in addition to a low tax rate, contained one of the following characteristics:

- Secrecy rules for banks, financial institutions and stock exchanges;
- Minimum requirements for accounting methods, organizational activities and business activities of the enterprise;
- Favorable tax rules or other advantages to nonresidents that are not available to residents;
- The tax authorities in the low-tax jurisdiction have the power to grant discretionary tax privileges or other advantages;
- Allowing ownership to be held in trust for the intended party;
- Not maintaining a registry or not requiring registration of corporations or partnerships; or
- No withholding taxes on dividends and interest paid to foreign residents.

differences in the economic environment (“geographic market adjustments”) in addition to the usual adjustments regarding inventories, receivables and payables.

The Argentine transfer pricing rules require the taxpayer to make adjustments in applying comparability, including adjustments for differences in payment terms, the value of interest accrued, differences in the amount or volume traded (including trade discounts or bonuses), and difference as to promotional activities, advertising, and publicity charges, taking the price per unit into account. The tax authorities are particularly concerned with the transfer pricing implications of advertising, publicity and promotional activities for comparative purposes. Therefore, the regulations contain a special accounting procedure: expenses must be apportioned pro rata among the goods or assets, services or rights applied in promoting the company's brands. The pro rata apportionment is to be made on the basis of product sales.

Prices of goods, assets, or services are to be adjusted to take into account the packaging, freight and insurance costs for comparative purposes. Similarly, prices are to be adjusted, depending on costs incurred, to reflect the physical nature of the goods, assets, services or rights that are comparable with each other. Comparable transactions are to be adjusted if the transactions take place on different dates -- the wholesale price index can be used for this purpose.

The regulations also provide guidance for when the currency lacks an exchange rate against the Argentine currency. Currency should be first converted into dollars and then into Argentine currency. In a similar manner, changes in the price of commodities can be demonstrated by reference to commodity exchange listings.

### **5. Documentation Requirements**

Taxpayers are required to maintain documentation analogous to that required by the U.S. contemporaneous documentation provisions. The Argentine requirements are onerous even when compared to the U.S. transfer pricing regulations. The taxpayer must justify both the transfer pricing reflected and the comparison of the methods. Records must be maintained in accordance with the Procedural Tax Act and retained for 10 years (*i.e.*, until expiration of the statute of limitations). While no provision is made for APAs, the information required is similar to what taxpayers in Mexico must submit when requesting an APA.

Law 25.239 clarifies that the transfer pricing documentation rules apply to related party transactions with nonresidents and to import and export transactions if the parties are unable to prove the wholesale price in the country of origin or destination.

Taxpayers must maintain extensive and detailed records, including a wide variety of documents, records and other information, as supporting documentation:

- Detailed description of the taxpayer's functions and activities, assets used, risks assumed and organizational structure;
- Identity of all affiliated parties and documentation outlining the nature of the relationships;
- Information on transactions with related parties;
- Information on activities of each member in a group of companies;
- Financial statements of the taxpayer, financing information and the cost structure of the taxpayer;
- Copies of contracts (*e.g.*, warranties, know-how, cost sharing, R&D, advertising, etc.) between the taxpayer and foreign related parties;

## **C. Application**

### ***1. Taxpayer Obligations***

The Argentine transfer pricing regulations require resident taxpayers engaged in transfer pricing transactions to file an annual income tax return and a supplemental transfer pricing return (Form 662) that reflects all related-party transactions. The return must be filed electronically. The return is due within the first 10 days of the fifth month following the accounting year-end (this coincides with the date a corporate taxpayer must file its annual tax return).

### ***2. Examination, Dispute Resolution, APAs***

Transfer pricing examinations are just beginning in Argentina. Initially, the tax office focused primarily on requesting information to build up a transfer pricing database. Later, while conducting tax audits, tax inspectors would request the transfer pricing study. The tax authorities are now conducting specific transfer pricing audits.

There are no specific dispute resolution procedures other than those stated in the Tax Procedural Law. In this respect, when a transfer pricing audit is carried out and an adjustment made, the taxpayer may opt to pay the tax determined or appeal to the tax court without paying the amount determined by the tax authorities. If the tax court rules in favor of the authorities, the taxpayer must pay the amount due to appeal to the higher courts, and ultimately to the Supreme Court. If the taxpayer prevails in court, the Tax Office also has the right to appeal up to the Supreme Court.

Argentine legislation does not authorize APAs although it is expected that in the near future such agreements will be allowed as the Tax Office and taxpayer become more mature in handling transfer pricing issues.

## **III. Brazil**

### **A. Legislation and Regulations**

As contained in Law 9430/96, Brazil's transfer pricing rules generally are based on the OECD Guidelines but also contain some substantial deviations. The rules themselves are relatively simple and flexible, and allow companies domiciled in Brazil to implement a variety of tax planning strategies. Nevertheless, the rules also are designed to prevent multinational companies from manipulating prices between related parties in a manner that allows for the inappropriate transfer of otherwise reportable income from Brazil to a low or no-tax country; or artificially transferring profits from one related party to another related party with tax losses. To this end, the rules call for the imposition of significant penalties in some instances.

The transfer pricing rules determine the extent to which costs, expenses and charges relating to goods, services and rights stated on import or acquisition documents pertaining to transactions between related parties will be deductible in computing taxable income. Insofar as the transfer pricing rules refer to adjustments to Brazil's income (IRPJ) and social contribution on corporate net profits (CSLL) tax bases, they are strictly tax-related provisions and are not to be construed as a monetary policy, since they do not set any limit on amounts required for the payment of import or export operations.

Brazil's transfer pricing rules target transactions between a Brazilian entity and its overseas related parties involving the import and export of goods, services and rights, without distinguishing between tangible property or services.



taxpayer regarding which transfer pricing methodology to use in a given situation. Taxpayers are free to choose any method or combination of methods from those specified in the regulations and can apply them to tangible property or services, just so long as, whatever method is chosen, the taxpayer provides all of the information necessary to apply the method or methods chosen. All of the approved Brazilian transfer pricing methods involve price comparisons or reconstruction rather than a determination of profit margins.

### ***2.1. Methodologies for Import Transactions***

Taxpayers may use the following transfer pricing methods for import transactions: the CUP method (also known as the comparable independent prices method), the resale price less profit method; or the production cost plus profit method.

***Comparable Uncontrolled Price Method:*** Under the CUP, the importer must determine the average sales prices for similar goods, services or rights in Brazilian or foreign markets under similar conditions and compare those to its own sales prices. In making the comparisons, the prices must be compared with the prices of similar tangible or intangible property or services sold by the same exporter to unrelated parties, purchased by the same importer from unrelated parties or in sales between other, unspecified, unrelated parties. No fixed gross margin is applicable under this method.

***Retail Price Less Profit:*** Under the Retail Price Less Profit Method, the importer determines the average resale prices of goods, services or rights after reducing the resale prices to reflect (1) unconditional discounts, sales taxes or contributions and brokerage costs; and (2) a 20% profit margin calculated based on the resale price. A transaction between unrelated parties is the only standard for comparison under this method.

***Production Cost Plus Profit:*** Under this method, the importer calculates the average cost of goods, services or rights based on what they would be in the country where they were produced. To this figure the importer adds any export taxes imposed by the producing country and a 20% profit margin calculated on the costs. A range of factors may be used to determine costs under this method.

### ***2.2. Methodologies for Export Transactions***

Taxpayers may use the following transfer pricing methods for export transactions: the export sales price method, the wholesale price in the country of destination less profit method, the retail price in the country of destination less profit method or the acquisition or production cost plus taxes and profit method.

***Export Sales Price Method:*** Under the Export Sales Price Method, the exporter determines the average prices of exports it has made to unrelated third parties as a comparison standard or, as an alternative, the average prices of similar goods, services or rights exported by other Brazilian companies during the same time period and under similar conditions.

***Wholesale Price in the Country of Destination Less Profit Method:*** Under the Wholesale Price in the Country of Destination Less Profit Method, the exporter calculates the average wholesale price of similar goods. These averages are determined based on the wholesale price in the country of destination but do not include any taxes imposed by the country of destination. Finally, a 15% profit margin is subtracted from the average wholesale price.

***Retail Price in the Country of Destination Less Profit Method:*** Under the Retail Price in the Country of Destination Less Profit Method, an average retail price for similar goods, based on prices in the country of destination is arrived at. From this price is subtracted any taxes imposed by the country of destination and reflected in the average price and a 30% profit margin calculated on the retail price.

***Acquisition or Production Cost Plus Taxes and Profit Method:*** Under this method, the average cost of producing or acquiring similar exported goods, services or rights is determined. To this figure is added any taxes and contributions levied in Brazil and reflected in the cost and a 15% profit margin, calculated on an amount that includes the costs, contributions and taxes.

certain income that, except for arrangements that cause "two enterprises" to differ in their relations from those of "independent enterprises," otherwise would have accrued to one of the enterprises.

In addition, there is a process under Brazilian law whereby an individual company or group of companies may petition the Brazilian competent authority to prove that a gross profit margin maintained by a particular company is excessive in regard to a specific good, right or service. To date, however, no company has petitioned the Brazilian competent authority to reduce the gross profit margin.

## **C. Application**

### **1. Taxpayer Obligations**

Taxpayers that carry out business activities with a nonresident related party must adhere to all existing transfer pricing laws and regulations. Most importantly, taxpayers who find themselves subject to the transfer pricing rules must prepare a transfer pricing study by the end of each calendar year for each transaction it maintains with a nonresident related entity. By June 30 of each year, companies must file their tax returns, including all required information. All documents used to support the information contained in the return must be kept for a period of six years.

### **2. Examinations, Dispute Resolution, APAs**

Within the Federal Revenue Secretariat's International Department is a special transfer pricing team that is responsible for conducting transfer pricing audits and investigations, as well as imposing penalties for failure to adhere to transfer pricing rules. Taxpayers may dispute the findings of the auditors initially through an administrative process. If no relief is granted as a result of that process, the taxpayer may then dispute the findings of the auditors in court.

Brazilian law does not have explicit advance pricing agreement regulations, however taxpayers may request a ruling from the tax authorities allowing them to use a different gross margin to the fixed ones provided in the different transfer pricing methods.

## **IV. Mexico**

### **A. Legislation and Regulations**

Until 1996 (*i.e.*, before the transfer pricing regime was introduced), Article 64-A of the Income Tax Law (ITL) granted powers to the tax authorities to determine the prices of related party transactions when those transactions were not carried out on arm's length terms. The 1997 transfer pricing regime codified the arm's length principle as set forth in the OECD Guidelines and shifted the burden of proof from the tax authorities to the taxpayer to demonstrate that its transactions with related parties were consistent with the arm's length principle.

#### **1. Definition of Related Parties**

The related party definition enacted in 1997 is based on the OECD Guidelines as well as Article 9 of the OECD Model Tax Convention, although the definition is much more encompassing than the OECD definition. Under the Mexican rules, two or more parties are related when one directly or indirectly participates in the management, control or capital of the other, or when a person or group of persons

one transaction or a group of segmented transactions.<sup>12</sup> Otherwise, it could be argued that the method is not consistent with the OECD Guidelines since it compares the consolidated global profits of different multinational enterprises.

Using a profit-based method gives rise to practical problems when determining the tested party in a cross-border analysis, since a literal reading of the rules leads to the conclusion that the tested party must be the Mexican taxpayer. Therefore, in a highly complex transaction involving a full-fledged Mexican manufacturer with intangibles and a simple distributor abroad, testing the "simple" party may not satisfy the Mexican tax authorities.

No specific profit level indicators are required but it appears that the tax authorities have accepted indicators, including the Berry ratio, operating margin and return on assets. For purposes of determining income, costs, gross margins, net sales, expenses, operating profit, assets and liabilities, Mexican GAAP should be followed.

### 3. Comparability Analysis

Mexican taxpayers that carry out related party transactions must determine their income and deductions by considering the prices that comparable companies would have used in comparable transactions. Companies or transactions are considered comparable when differences may be eliminated through reasonable adjustments. To identify differences between controlled transactions and the comparables, a number of factors must be considered, including characteristics of the transactions,<sup>13</sup> functional analysis, contractual terms, economic circumstances and business strategies.<sup>14</sup>

The use of "inexact" comparables has become established practice in countries such as Mexico, where there is limited access to information on public comparable transactions or companies and that lack reliable databases from which to derive transfer pricing information.

The items of the tested company should be determined based on Mexican GAAP. Where non-Mexican comparables are used to determine the transfer price, compliance with this rule will require careful analysis. Generally, the use of non-Mexican comparables will require adjustments to the financial statements of the comparable companies in respect of the accounting/valuation method applied to certain transactions. These adjustments are necessary to bring the financial statements of the comparable companies in line with the Mexican GAAP. Where such adjustments are made, the taxpayer should be prepared to explain and justify them.

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<sup>12</sup> In dealing with Mexico and U.S. transfer pricing issues, specifically with respect to the TOPMM method, it will depend on the level of aggregation of the transactions that the Mexican authorities will accept to determine whether the CPM is equal to the TOPMM method. The provisions of paragraphs 1.42, 1.43 and 3.26 of the OECD Guidelines should be taken into account when determining the level of aggregation of transactions. The Guidelines provide that "there are often situations where separate transactions are so closely linked or continuous that they cannot be evaluated adequately on a separate basis."

<sup>13</sup> Characteristics of the transactions include the following:

- For financing operations, the amount of the principal, term, guaranties, solvency of the debtor and interest rate;
- For the provision of services, the nature of the services, and whether the services involve technical experience or knowledge;
- For the use, enjoyment or sale of tangible goods, the physical characteristics, quality and availability of the goods;
- For the exploitation or transfer of intangibles, the length and degree of protection; and
- For the alienation of shares, the updated shareholders' equity of the issuing company, the present value of profits or projected cash flows or stock market quotation of the day before the sale.

<sup>14</sup> Business strategies would include market penetration, permanence and expansion.

## **B. Treaties, MAP and Competent Authority**

Mexico has entered into the following tax treaties that generally include a MAP clause in accordance with the OECD Model Tax Convention.

- Belgium
- Canada
- Chile
- Denmark
- Germany
- Finland
- France
- Ireland
- Israel
- Italy
- Japan
- Korea
- Netherlands
- Norway
- Singapore
- Spain
- Sweden
- Switzerland
- United Kingdom
- United States

The SAT has discretion to allow a Mexican taxpayer to amend its return to reflect the application of a proposed adjustment by a foreign tax administration if Mexico has concluded a tax treaty with the country making the adjustment.

## **C. Application**

### ***1. Taxpayer Obligations***

Taxpayers are allowed to obtain ranges of prices, considerations or profit margins through the adoption of any of the methods authorized under Article 65 when determining their transfer prices.

Article 65 states that a range may be adjusted by means of statistical methods. No reason is given why this may be necessary, although it is understood that it is in order to obtain a statistically representative sample. Based on the MTP this means that the SAT will accept methods that use interquartile ranges.

Further, in conformity with the OECD Guidelines, the Mexican rules provide that the taxpayer will be found to have determined its transfer price on an arm's length basis, if the amounts are within the arm's length range. Otherwise, the median will be deemed to be the arm's length price or amount of consideration.

Mexico does not impose specific methods for intangible property as is the case in the United States, nor does it follow the OECD recommendations in "The Taxation of Global Trading and Financial Instruments." Further, Mexican law does not permit cost sharing arrangements because under domestic law any pro rata expense incurred abroad is non-deductible (except in the case of permanent establishments).

The 2000 tax reform introduced a requirement to file a transfer pricing return. The first filing is due in February 2001 to report fiscal year 2000 related party transactions.

### ***2. Examinations, Dispute Resolution and APAs***

A taxpayer will be notified in advance of an audit, but the audit may commence the day after notification. No time limit is specified for the length of a transfer pricing audit. The SAT may use secret comparables (*i.e.*, confidential third party information) in making adjustments. The taxpayer is entitled to

## V. United States

### A. Legislation and Regulations

The purpose of section 482 is to ensure that taxpayers clearly reflect income attributable to controlled transactions and to prevent the avoidance of taxes with respect to those transactions. The Internal Revenue Service (hereinafter "Service") may make whatever allocations are necessary between or among controlled taxpayers, if it determines that the taxpayer has not reported its true taxable income. Taxpayers, however, may only use section 482 to report on a timely filed return an arm's length result that is different from the actual result. Taxpayers cannot compel the Service to apply section 482, nor can they file amended or untimely returns to decrease taxable income based on allocations or other adjustments to their controlled transactions.

#### 1. *The Arm's Length Standard*

A controlled transaction will be arm's length if the results are the same as would have been realized by uncontrolled taxpayers engaged in the same transaction in the same circumstances. The regulations, however, state that "because identical transactions can rarely be located, whether a transaction produces an arm's length result will be determined by reference to the results of comparable transactions under comparable circumstances."<sup>18</sup> This evaluation is to be made using a pricing method selected under the standards of the "best method rule" described below.

#### 2. *Best Method Rule*

Transfer prices must be determined using the best method, *i.e.*, the method that, under the facts and circumstances, provides "the most reliable measure" of an arm's length result. There is no strict priority of methods and any method may be used without establishing the inapplicability of another method. In selecting a method, the factors to consider in identifying the best method are: (i) the degree of comparability between controlled and uncontrolled transactions; (ii) the completeness and accuracy of the data; (iii) the soundness of the assumptions relied upon; (iv) the sensitivity of results to deficiencies in data and assumptions; and (v) where two methods produce inconsistent results, the confirmation of the chosen results by comparison with a third method.

#### 3. *Comparability*

The general standard of comparability requires that an uncontrolled transaction be sufficiently similar to the controlled transaction such that it provides a reliable measure of an arm's length result. The regulations do allow for a reasonable number of adjustments to the results of the uncontrolled transaction to account for material differences between the controlled and uncontrolled transaction, if such differences have a definite and reasonably ascertainable effect on prices or profits.

Under the regulations, all facts and circumstances that could affect prices or profits in arm's length dealings are taken into account when evaluating comparability. The general factors to be considered in evaluating comparability include:

- Functions performed and resources employed;
- Contractual terms;

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<sup>18</sup> Thus, under the regulations, controlled transactions may be evaluated by reference to uncontrolled transactions that are comparable, but not necessarily identical.

### **6. Methods for transfers of tangible property**

Under the regulations, a taxpayer has available six methods for determining taxable income from the transfer of tangible property: the CUP, RP, CP, CPM, PSM and other unspecified methods. Both the CPM and the PSM apply to transfers of both tangible and intangible property, and therefore they are discussed in a separate section, below.

**Comparable Uncontrolled Price Method** - The CUP method evaluates whether the amount charged in a controlled transaction is arm's length by reference to the amount charged in a comparable uncontrolled transaction. Such transactions can involve third parties to the transaction at issue, but also can involve the same taxpayer making a sale to or purchase from an uncontrolled taxpayer. An uncontrolled transaction is considered comparable if the tangible property and contractual terms are substantially the same as those of the controlled transaction and, if any minor differences exist, they either have no effect on the price or have a definite and reasonably ascertainable effect on price that can be accounted for by a reasonable number of adjustments to the uncontrolled transaction. Where the products and circumstances are sufficiently similar (*i.e.*, the product comparability standards are met), the CUP method generally will be the most reliable measure of the arm's length result of the controlled transaction.

**Resale Price Method** - The RP method evaluates whether the amount charged in a controlled transaction is arm's length by reference to the gross profit margin realized in comparable uncontrolled transactions. The RP method ordinarily is used in cases involving the purchase and resale of tangible property in which the reseller has not added substantial value to the tangible goods (by physically altering the goods or through the use of an intangible) before resale.

**Cost Plus Method** - The CP method determines an arm's length charge by comparing the gross profit markup realized in controlled and uncontrolled transactions. The CP method is ordinarily used in cases involving the manufacture, assembly or other production of goods that are sold to related parties.

**Unspecified Methods** - Where none of the previously discussed methods can reasonably be applied, another method may be used to determine the arm's length price.

### **7. Methods for Transfers of Intangible Property**

If an owner of the rights to exploit an intangible transfers such rights to a controlled taxpayer, the owner must receive an arm's length consideration. An "intangible" is defined as an asset that has substantial value independent of the services of any individual, including: (i) patents, inventions, formulae, processes, designs, patterns or know-how; (ii) copyrights and literary, musical or artistic compositions; (iii) trademarks, trade names, or brand names; (iv) franchises, licenses, or contracts; (v) methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, estimates, customer lists or technical data; and (vi) other similar items that derive value from their intellectual content or other intangible properties, not from their physical attributes. The owner of a particular intangible is either the legal owner of the right to exploit the intangible if the intangible is legally protected, or the developer of the intangible if the intangible is not legally protected. However, if the owner received assistance (*e.g.*, loans, services, tangible or intangible property) in the development or enhancement of the intangible from a related party, then such related party may be entitled to an arm's length consideration for such assistance.

The arm's length amount to be charged for the use of intangible property may be determined under one of the following four methods: the comparable uncontrolled transaction method, the CPM, the PS and an unspecified method.

**Comparable Uncontrolled Transaction (CUT) Method** - The CUT method evaluates whether the amount charged for a controlled transfer of intangible property was arm's length by reference to the

***Profit split method*** - The PSM compares the allocation of the combined operating profit or loss attributable to controlled transactions to the relative value of each controlled taxpayer's contribution to that combined operating profit or loss. The allocation should correspond to the division of profit or loss in an uncontrolled transaction, where each party performs functions similar to those of the controlled taxpayers. The profit allocated to any particular member of a controlled group is not necessarily limited to the total operating profit of the group from the relevant business activity. Thus, in a given year, one member of the group may earn a profit while another member incurs a loss. The regulations provide for a comparable profit split method and a residual profit split method.

### ***8. Cost Sharing Arrangements***

Despite the addition of the "commensurate with income" standard to section 482 in 1986, the Conference Committee report to the 1986 Act made it clear that the change was not intended to preclude the common practice of related parties entering into bona fide research and development cost sharing arrangements for the development of intangibles. The report stated, however, that for cost sharing arrangements to be consistent with the "commensurate with income" standard, a participant should be expected to bear its portion of all research and development costs, the allocation of costs generally should be proportionate to profit as determined before deduction for research and development, and to the extent one participant begins funding R&D at a much earlier point in time than another participant, that participant should receive an appropriate return on its investment.

### ***9. Penalties***

Section 6662(e) and (h) sets forth penalties of 20 and 40% for certain increases in U.S. income tax attributable to section 482 adjustments. One significant objective of the so-called transfer pricing penalty was to improve taxpayer compliance with the arm's length standard by encouraging (some might say forcing) taxpayers to make reasonable efforts to determine and document arm's length prices for their intercompany transactions. However, the penalty will not apply to the extent that the taxpayer complies with specified contemporaneous documentation requirements.

### **B. Tax Treaties, MAP and Competent Authority**

The United States and most of its trading partners maintain an extensive network of tax treaties, the stated purposes of which are to eliminate double taxation and prevent tax evasion. In situations where the application of United States and foreign tax laws would result in the taxpayer being subject to double taxation, a taxpayer may invoke a tax treaty's mutual assistance procedure to request relief from double taxation. The application of domestic transfer pricing laws fall under tax treaty jurisdiction pursuant to the "Associated Enterprises" articles contained in the various treaties. Generally, the "Associated Enterprises" provision allows the tax authority of one country to include in the income of one of its taxpayers the income of a related party located in another country if the two parties did not act at arm's length. Because unilateral transfer pricing adjustments will always result in double taxation, taxpayers may request competent authority assistance under the treaty's mutual assistance procedure whenever they are subject to a transfer pricing adjustment.

Once a taxpayer's request for relief is accepted, the competent authorities of both treaty countries will attempt to reach a settlement that eliminates double taxation through the mutual attribution of income, deductions, credits, or allowances between related taxpayers.

authority for a bilateral APA) will regard the results of applying the TPM as satisfying the arm's length standard provided the taxpayer complies with its terms. The duration of an APA is typically from three to five years, and can be renewed in future years. An APA can also be applied to previous years ("rolled back") in certain circumstances. In addition to the *Traditional* APA, in 1998, the IRS addressed taxpayers concerns about time and expense in obtaining an APA by issuing procedures for small business taxpayers to obtain an APA that will be negotiated under a streamlined process.

## VI. Venezuela

### A. Legislation and Regulations

The Venezuelan transfer pricing rules focus primarily on import and export transactions of tangible property, although certain rules target interest charges between related parties. Royalties, technical assistance fees and technological service fees are specifically excluded from the transfer pricing legislation since these types of payments are covered by other provisions that limit the amount that may be deducted. In this respect, the Venezuelan transfer pricing rules resemble the rules in Brazil.

Following the trend in Latin America (*e.g.*, Argentina, Brazil and to some extent Mexico), Venezuela has adopted diverse and complex attribution rules in terms of indirect and family relationships. The legislation includes safe harbors in manner similar to that of Brazil as well as the arm's length standard similar to that of Mexico.

#### 1. Definition of Related Parties

The provisions determining related party status are very broad. Parties may be deemed related under the Venezuelan rules in situations where those parties would not be deemed related under the related party definitions used in most OECD countries.

- Through a relationship with a legal entity domiciled in Venezuela;
- Through a relationship with a permanent establishment in Venezuela; or
- Through a relationship with a fixed base in Venezuela.

The transfer pricing law contains three types of attribution: attribution based on legal structure, family relationship and on both family relationship and legal structure.

#### 2. Transactions with Low-Tax Jurisdictions

Venezuela includes a rebuttable presumption that a Venezuelan entity conducting business with an entity in a low-tax or tax haven jurisdiction is conducting business with a related party. Unlike the rules in Argentina, the Venezuelan statute does not define "low-tax jurisdiction." Nevertheless, based on other sections of the tax reform, it is anticipated that the Venezuelan tax authorities will publish a list of countries considered low-tax jurisdictions following Mexico's practice.

#### 3. Methodologies for Import Transactions

Taxpayers may use the following methods in computing an arm's length price for import transactions: CUP, RP, production cost method<sup>20</sup> and transactional operating profit margin method

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<sup>20</sup> This method is equivalent to the CP method in the OECD Guidelines.



services or rights between unrelated parties in the destination market during the same fiscal period and under similar methods of payment financing.

If the exporter's sales price fails to meet the 90% test, the exporter must determine its income by using one of the five official transfer pricing methods designated for exports. The permitted methodologies are as follows:

**Average Export Sales Price Method:** This method is the company's average sale price for other customers or another domestic exporter with identical or similar goods, services or rights.

**Wholesale Sales Price Method:** This method is based on sales to the country of destination less the wholesaler's profits, *i.e.*, the wholesale sales price is the average price of the goods, services or rights in the wholesale market in the country of destination. The wholesale sales price is based on similar payment conditions and is calculated by subtracting the sales tax included in the country of destination and subtracting a profit margin on the wholesaler's sales price. The Venezuelan tax authorities may establish this profit margin by issuing administrative regulations.

**Retail Sales Price Method:** The RP method is based on sales to the country of destination less the retailer's profits. The retail sales price is the average price of identical or similar goods sold in the country of destination. The tax authorities apply payment factors analogous to the wholesale sales price by subtracting the sales tax of the country of destination and the profit margin from the retail price. The tax authorities may establish this profit margin by issuing administrative regulations.

**Production Cost Method Plus Profits Method:** The Venezuelan tax administration may determine export sales income through the purchase price plus profits or production price plus profits method. This method consists of determining the average purchase or production price of the exported goods, services or rights, plus adjustments. The tax administration, through administrative regulations, is to add the taxes imposed on the sales activity by either country and add a profit margin based on the sum of the costs and taxes.

**Transactional Operating Profit Margin Method:** The TOPMM permits the taxpayer to determine the profitability that would have been obtained by comparable businesses or by unrelated parties in similar situations. This comparison could take into account factors such as profits that are based on other factors such as assets, costs, expenses or currency fluctuation.

### **5. Financing transactions**

The Venezuelan transfer pricing legislation reflects to some extent the reality of inflation and currency devaluation in the country. Interest paid or credited between related parties is deductible only for the purpose of determining taxable income up to the amount that does not exceed the value calculated based on LIBOR rates to deposit U.S. dollars for a period of six months, increased by the annual percentage proportionate to the period to which the interest refers. The Venezuela tax authorities determine this percentage based on information from the Central Bank.

### **6. Information Gathering**

Venezuelan law allows taxpayers to use various sources of information to support their transfer prices. Costs, average prices and profit margins are to be determined by taking into account the following:

- Official publications and bulletins, issued by a domestic or foreign recognized institution, of the buyer's and seller's countries. Declarations by the tax authorities may be used if that country has concluded a double tax treaty with Venezuela that provides for the exchange of fiscal information.

**2. *Examinations, Dispute Resolution, APAs***

Since the transfer pricing rules are a relatively new initiative in Venezuela, the tax authorities have had no practical experience with transfer pricing audits.

The Venezuelan statute does not provide for APAs.

**SESION 4**

**INCENTIVOS FISCALES Y COMPETITIVIDAD:  
EXPERIENCIA Y PERSPECTIVAS PARA AMERICA LATINA  
Y EL CARIBE EN UNA ERA DE CRECIENTES CONFLICTOS  
ECONOMICO-COMERCIALES INTERNACIONALES**

**LAS REGLAS MULTILATERALES SOBRE SUBSIDIOS A LA LUZ DE ALGUNOS  
FALLOS DE LA ORGANIZACIÓN MUNDIAL DEL COMERCIO (OMC)<sup>1</sup>**

**Vivianne Ventura Dias<sup>2</sup>**

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<sup>1</sup> Esta es una versión preliminar y no editada del documento.

<sup>2</sup> La autora es Directora de la División de Comercio Internacional y Financiamiento para el Desarrollo de la Comisión Económica para América Latina y el Caribe (CEPAL). Sin embargo, las opiniones emitidas en este ensayo son personales y no involucran la institución de la cual ella es miembro.

## 1. Introducción

La subvención directa o indirecta de actividades económicas por el sector público es una práctica tan antigua cuanto la propia existencia de los Estados naciones. Los aportes del erario público tienen el propósito de reducir los costos de producción, de comercialización, de transporte, o de consumo de productos específicos, y por lo tanto inciden sobre las condiciones de competencia en estos mercados. Sin embargo, hasta la última ronda de negociaciones comerciales multilaterales (1986-1993), los subsidios no estaban cubiertos por reglas multilaterales precisas. La Ronda Uruguay definió por primera vez conceptos y limitaciones para el empleo tanto de los subsidios a la exportación como de los subsidios a la producción, así como reglas y procedimientos para la aplicación de medidas compensatorias. Vale notar que los negociadores lograron que los subsidios a los productos y a los productores agropecuarios fueron incluidos en el Acuerdo sobre la Agricultura y tuvieron un trato diferente de los subsidios a la producción y exportación de manufacturados cuyas reglas están definidas en el Acuerdo sobre Subvenciones y Medidas Compensatorias (SMC). Las disciplinas sobre subvenciones a la producción y exportación de los servicios aún no han sido objeto de negociaciones.<sup>3</sup>

Es importante destacar que en lo relativo a los subsidios no agrícolas, las disciplinas sobre Subvenciones y Medidas Compensatorias tienen un doble propósito. Por una parte, restringir el uso de ciertas subvenciones por sus efectos negativos sobre el comercio de los demás signatarios de los acuerdos; y por otra, restringir la introducción unilateral y arbitraria de medidas de compensación por daños debidos a importaciones sospechas de haber recibido subsidios.

Durante los seis años de operación de la OMC, solamente cinco de los cerca de 55 informes emitidos por el organismo de solución de controversia de esta institución se refirieron a quejas por subvenciones. Los casos más recientes y también los más complejos se refieren a las quejas cruzadas de los gobiernos de Brasil y Canadá por subvenciones a la exportación de aviones civiles producidos respectivamente por la empresa brasileña Embraer y la canadiense Bombardier, y la querrela de la Unión Europea por los subsidios otorgados por el gobierno de los Estados Unidos a ciertas operaciones de sus empresas transnacionales, las exenciones de impuestos a las Empresas de Ventas Externas (*Foreign Sales Corporations*) de los Estados Unidos.<sup>4</sup>

Este documento tiene como objetivo presentar las reglas multilaterales sobre subsidios, a partir de la interpretación de las mismas por el sistema de solución de controversias de la OMC en sus fallos de los casos de Brasil contra Canadá y Canadá contra Brasil. Está dividido en cinco partes. La segunda, subsecuente a esta introducción, describe la evolución de la normativa multilateral sobre subvenciones. La tercera examina someramente el órgano de solución de controversias de la OMC con vistas a exponer los procedimientos, sus propósitos y los límites de su acción. La sección cuarta proporciona información sobre los dos fallos de la OMC referidos anteriormente. Finalmente, la última sección presenta algunas cuestiones planteadas por la normativa multilateral a la acción de los gobiernos.

<sup>3</sup> El Artículo XV (Subvenciones) del Acuerdo General sobre el Comercio de Servicios define "Los miembros reconocen que, en determinadas circunstancias, las subvenciones pueden tener efectos de distorsión del comercio de servicios. Los Miembros entablarán negociaciones con miras a elaborar las disciplinas multilaterales necesarios para evitar esos efectos de distorsión..." (GATT, 1994, pág. 357).

<sup>4</sup> Dos otros casos abarcan una reclamación de los Estados Unidos contra subsidios otorgados por Australia a productores y exportadores de cuero utilizados en autos (documento de la OMC WT/DS126/1) y una queja conjunta de los Estados Unidos, la Unión Europea y Japón en contra de la política automotiva de Indonesia (documento de la OMC WT/DS54, 55, 59 & 64) (véase la página web de la OMC <http://www.wto.org>).

general criticados, los subsidios a la producción eran considerados legítimos, en términos del desarrollo de la producción local, y lícitos ante los principios del GATT, desde que no hubieran trabas a la libre importación, dado que permitirían a la industria local adquirir escala y competir con las importaciones, lográndose así un aumento de la eficiencia global (Dam, 1970/1977, págs. 133-141).<sup>7</sup>

Por otra parte, en la ausencia de reglas claras hasta la Ronda Uruguay, los Estados pasaron a desarrollar su legislación interna con el propósito de "remediar" los efectos de las prácticas de los otros Estados. Como se dijo anteriormente, cuando se considere que han tenido lugar algún tipo de subvención que ha causado o amenaza causar un perjuicio importante a la industria nacional, la subvención puede ser contrarrestada con un derecho compensatorio equivalente.

Desde 1897, los Estados Unidos mantienen leyes internas para "remediar" los efectos de las prácticas de los otros Estados (derechos compensatorios).<sup>8</sup> Inicialmente aplicada para compensar los productores domésticos de donaciones públicas a las exportaciones que eran gravadas en aquel país, la ley fue ampliada en 1922 para incluir subsidios domésticos. Además, las Leyes de Comercio de 1974 y de 1979 ampliaron considerablemente la autoridad federal para imponer derechos compensatorios. El mayor problema residía en que los derechos compensatorios eran aplicados sin que la existencia de un "daño importante", llamada "prueba de daño", fuera demostrada con rigor.<sup>9</sup>

Durante la Ronda Tokio (1973-1979) no fue posible llegar a un acuerdo generalizado relativo a "la interpretación y aplicación de los artículos VI, XVI y XXIII del GATT".<sup>10</sup> El principal escollo fue la inclusión de los subsidios a la producción, que era deseada por los Estados Unidos, pero no por los países de Comunidad Europea. Por otra parte, los países en desarrollo defendían su derecho de seguir utilizando subvenciones gubernamentales para diversificar su estructura productiva sin la imposición de derechos compensatorios por los países industrializados. Finalmente, estos países decidieron no suscribir el Código de Subsidios (Winham, 1986).

De toda manera, el Código de Subsidios, que resultó de la Ronda Tokio se constituyó el primer texto abarcante de disciplinas multilaterales sobre el uso de subsidios en el comercio internacional (Jackson, 1989/1992). Según Maciel (1994, pág. 256) la metodología del acuerdo era defectuosa, el propio acuerdo era vago en muchos puntos y el lenguaje jurídico era muy impreciso. Estos problemas deberían ser solucionados en el nuevo texto a ser negociado en la Ronda Uruguay.

El Acuerdo sobre Subvenciones y Medidas Compensatorias (SMC) que resultó de la Ronda Uruguay consta de 32 artículos y siete anexos que extendieron de forma significativa los 18 artículos del Código de 1979. Por la primera vez define con rigor y abundancia de detalles el término subvención, como una medida costada por el erario público, que otorga un beneficio a empresa(s) o rama(s) de producción específicas, y que se aplica en una de dos situaciones:

<sup>7</sup> La literatura económica reconoce que los subsidios afectan los patrones de producción de productos específicos mientras que los aranceles tienden a distorsionar tanto los patrones de producción como los de consumo.

<sup>8</sup> En el espíritu de sus leyes y en su práctica, siempre existió un amplio consenso en los Estados Unidos acerca de la legitimidad de la protección de las industrias locales afectadas por el comercio. En virtud de la ley de 1897, el secretario del Tesoro debería imponer un gravámen especial a los productos que se concluyeran que habían sido subvencionados en el país de origen, en un monto análogo al del subsidio. La misma ley abarcaba también los bienes vendidos a precios inferiores a su real valor (*dumping*) (Destler, 1992, pág. 139).

<sup>9</sup> Entre 1934 y 1968 se hicieron 191 investigaciones de subvenciones de las cuales solamente 30 casos concluyeron con la imposición de derechos compensatorios. Sin embargo, entre 1980 y 1984 se iniciaron cerca de 258 casos de medidas compensatorias, de las cuales, 135 se concluyeron con la imposición de derechos o bien la suspensión de las subvenciones alegadas (Destler, 1992, págs. 141 y 154).

<sup>10</sup> El Artículo XXIII se refiere a acciones de las Partes Contratantes ante el no cumplimiento de las obligaciones por otra parte contratante (anulación o menoscabo).

Código de la Ronda Tokio, ellos tenían derecho a mantener subsidios a la exportación y los subsidios a la sustitución de importaciones no eran objeto de medidas compensatorias por otros países. Además, el lenguaje del Acuerdo SMC permite suponer que un subsidio a la sustitución de importaciones puede ser recurrible independientemente de ser *de jure* o *de facto* específico o de otorgar un beneficio.

Todas las subvenciones que no sean claramente definidas como “no-recurribles”, que cumplan con las condiciones de la definición de subsidio (artículo 1); que no sean “prohibidas”, y que no se refieran a “productos agropecuarios” pueden ser “recurribles” ante el Órgano de Solución de Diferencias de la OMC. Las subvenciones “no recurribles” son las siguientes (artículo 8):

- a) la asistencia para actividades de investigación realizadas por empresas, o por instituciones de enseñanza superior o investigación contratadas por empresas, bajo ciertas condiciones;
- b) asistencia para regiones desfavorecidas situadas en el territorio de un Miembro, prestada con arreglo a un marco general de desarrollo regional y no específica, bajo ciertas condiciones;
- c) asistencia para promover la adaptación de instalaciones existentes a nuevas exigencias ambientales impuestas mediante leyes y/o reglamentos que supongan mayores obligaciones o una mayor carga financiera para las empresas, bajo ciertas condiciones.

### 3. El Sistema de Solución de Controversias de la OMC: los límites de su acción jurídica

El Órgano de Solución de Controversias de la OMC no es ni tiene el propósito de ser un tribunal comercial internacional. Las partes contratantes buscan imponer una solución de consenso negociada a un diferendo de naturaleza comercial que mantenga el equilibrio de derechos y obligaciones entre los países miembros. El Entendimiento relativo a las normas y procedimientos por el que se rige la solución de diferencias, que es parte del conjunto de acuerdos, decisiones, declaraciones y entendimientos que resultaron de la Ronda Uruguay, otorgó más automaticidad en la adopción de decisiones, plazos precisos, el establecimiento de un Órgano de Apelación, un mecanismo de retorsión cruzada, y reglas especiales para los casos en que no se alegue infracción de obligaciones (Millán, 1994, pág. 347).<sup>15</sup>

El Artículo 3:2 define el sistema de solución de diferencias de la OMC como “un elemento esencial para aportar seguridad y previsibilidad al sistema multilateral de comercio.” Además, que “sirve para preservar los derechos y obligaciones de los Miembros en el marco de los acuerdos abarcados y para aclarar las disposiciones vigentes de dichos acuerdos de conformidad con las normas usuales de interpretación del derecho internacional público.” Por otra parte, “las recomendaciones del OSD (Órgano de Solución de Diferencias) no pueden entrañar el aumento o la reducción de los derechos y obligaciones establecidos en los acuerdos abarcados” (GATT, 1994, pág. 421-422).

A su vez, el párrafo 3 del mismo artículo dispone que “el mantenimiento de un equilibrio adecuado entre los derechos y obligaciones de los Miembros” depende de una “pronta solución de las situaciones en las cuales un Miembro considere que cualesquiera ventajas resultantes para él directa o indirectamente de los acuerdos abarcados se hallan menoscabadas por medidas adoptadas por otro Miembro”. La definición de anulación está clara en el párrafo 8: “El incumplimiento de las obligaciones que fueron contraídas en función de un acuerdo determina un caso de anulación o menoscabo” (Artículo 3,

<sup>15</sup> Sáenz (1999, pág. 328) se refiere al Entendimiento como una codificación de las prácticas desarrolladas por el GATT desde su creación en 1947. Los Artículos XXII y XXIII son las únicas disposiciones sobre solución de controversias del GATT de 1947, pero no contienen aspectos precisos de procedimientos.

respectivas.<sup>17</sup> Las dos querellas avanzaron con los mismos plazos. El 14 de abril de 1999 circularon los informes de los dos grupos especiales (WT/DS70/R y WT/DS46/R), y el 2 de agosto de 1999 circularon los dos fallos del Órgano de Apelación (WT/DS70/AB/R y WT/DS46/AB/R).<sup>18</sup>

### *El caso de Brasil contra Canadá*

Brasil solicitó al grupo especial que verificara que ciertos subsidios empleados por Canada eran *de jure* o *de facto* contingentes a un desempeño exportador, y por lo tanto eran inconsistentes con el Artículo 3 del Acuerdo SMC, respectivamente:

1. garantías de financiamiento y préstamo por EDC (Export Development Corporation) incluyendo aportación de capital a empresas establecidas para facilitar las exportaciones de aeronaves civiles;
2. Apoyo a la industria de aeronaves civiles por Canada Account;
3. Fondos suministrados a la industria de aeronaves civiles por Technnology Partnerships Canada (TPC) y los programas que la precedieron, específicamente el Defence Industry Productivity Programme (DIPP);
4. la venta por Ontario Aerospace Corporation, una agencia del gobierno de la provincia de Ontario, de 49% de participación en una empresa de aeronaves civiles (de Havilland, Inc.) en términos favorables;
5. beneficios otorgados por el Canada-Québec Subsidiary Agreement on Industrial Development; y
6. beneficios otorgados por el Gobierno de Québec por la Societé de Développement Industriel (SDI) du Québec (OMC 1999a), págs. 2 y 3).

Brasil enfrentó una misión doblemente difícil: por una parte, defender el PROEX de las acusaciones de ser subsidio prohibido, y por otra, de encontrar evidencias amplias de los subsidios generalizados canadienses, para las cuales, sería necesario obtener información confidencial y no disponible. Además, mientras Canadá tenía una queja muy específica, la de Brasil, al contrario, abarcaba una vasta gama de instrumentos e instituciones.<sup>19</sup>

La defensa de Canadá fue muy enfática en negar información que describiera los detalles de las operaciones financieras de las instituciones acusadas por Brasil de promover las exportaciones de aeronaves civiles del país. Según Canadá, Brasil tenía la responsabilidad de presentar su caso ante el grupo especial. Por lo tanto, el gobierno brasileño debería encontrar suficiente evidencia para que se formara la sospecha de que sus afirmaciones acerca de la práctica de subsidios prohibidos en Canadá eran verdaderas. Es decir, según la percepción canadiense, y que fue posteriormente respaldada por el grupo especial, si Brasil no disponía de tales pruebas, Canadá no tenía la obligación de suministrar información adicional, y consecuentemente, la querella de Brasil no debería ser aceptada. En el caso en que Brasil dispusiera de tal información, entonces la otra parte debería aceptar el costo de desacreditar la sospecha con fuerte evidencia.<sup>20</sup>

El gobierno brasileño tuvo que basarse en la información disponible acerca de los varios programas canadienses, y en información circunstancial sobre el impacto de estos programas en las

<sup>17</sup> En la querella cruzada, los Estados Unidos y la Comunidad Europea reservaron sus derechos de participar en los procedimientos del grupo especial como terceras partes.

<sup>18</sup> Los informes de los dos grupos especiales fueron distribuidos a las partes el 12 de marzo de 1999.

<sup>19</sup> Para Canadá, entregar las informaciones confidenciales *transaction-specific* solicitadas por Brasil transformaría el proceso de los grupos especiales de la OMC en comisiones de inquérito (OMC 1999a, pág. 22).

<sup>20</sup> OMC, 1999b, págs. 23 y 24, párrafo 4.94).



extendido hasta 15 años. La extensión del tiempo, a su vez, determina el *spread* a ser ecualizado, que varía entre 2 a 3.8 puntos porcentuales por año. El PROEX es administrado por una agencia interministerial (Comité de Crédito a las Exportaciones) y las operaciones son coordinadas por el Banco do Brasil, que tiene autoridad para autorizar operaciones que no excedan 15 millones de dólares. Operaciones con valores superiores deben ser autorizadas por el Comité (OMC, 1999a, págs. 2-3).

En primero lugar, Canadá solicitó al grupo especial respaldar su percepción de que:

1. los pagos de ecualización de intereses por el PROEX constituyen subsidios en el sentido del artículo 3 del Acuerdo de SMC;
2. la ecualización de intereses otorgada a las transacciones de Embraer constituyen subsidios prohibidos;
3. estos pagos no se constituyen excepciones al Artículo 3;
4. Brasil no había satisfecho las condiciones del Artículo 27.4, y que, por lo tanto, no podía beneficiarse de los ocho años del periodo de gracia permitido para los países en desarrollo bajo el Artículo 27.2(b).

Canadá solicitó que el grupo especial formulara las siguientes recomendaciones:

1. Brasil no debería otorgar nuevos subsidios bajo PROEX incluyendo subsidios prometidos o obligados, pero que no hayan sido ejecutados, y que afectan aeronaves regionales que no fueran entregadas;
2. Brasil debería terminar con los subsidios de ecualización de tasas de intereses bajo el PROEX, antes de los tres meses posteriores a la adopción del informe del grupo especial por el Órgano de Solución de Controversias (OSC);
3. Brasil deberá retirar los subsidios PROEX otorgados a transacciones posteriores a la formación del grupo especial, el 22 de octubre de 1998;
4. que los pagos parcelados se terminen antes de tres meses después de la adopción del informe del grupo especial, en lo que se refiere a aeronaves que no hayan sido entregadas o de aeronaves entregadas después de esa fecha;
5. si el grupo especial decide que los subsidios PROEX son otorgados en el momento de entregar la aeronave, que el grupo recomiende que tales subsidios no sean otorgados a ninguna aeronave entregada después de la fecha de adopción del informe del grupo especial por el OSC; y
6. que sean eliminados los subsidios a la ecualización de intereses a todos los pedidos de aeronaves realizados entre la fecha de establecimiento del grupo especial y la adopción de su informe por el OSC.

La línea de defensa del gobierno brasileño se centró en admitir que los pagos de ecualización de intereses para aeronaves constituían subsidios a la exportación, (una transferencia potencial directa de fondos) pero que estaban exentos de las prohibiciones del Artículo 3.1(a) en virtud del Artículo 27 y del ítem (k) de la lista ilustrativa de subsidios prohibidos. El ítem (k) incluye "...el pago de la totalidad o parte de los costes en que incurran los exportadores o instituciones financieras para la obtención de créditos, en la medida en que se utilicen para lograr una ventaja importante en las condiciones de los créditos a la exportación." El planteamiento de Brasil consistía en argumentar que el contrario de la disposición era que tales pagos son *permitidos* desde que no sean utilizados para asegurar una ventaja material en las condiciones de los créditos a la exportación.

Entre las condiciones que determinaban que la ecualización de las tasas de intereses no aseguraban una ventaja material a Brasil, la defensa argumentó sobre el riesgo soberano de Brasil que justificaría la adopción del instrumento de PROEX. Entre los varios datos, Brasil indicó que las tasas sobre los títulos

Posteriormente, el Órgano de Apelación, con pequeñas modificaciones, mantuvo el fallo del grupo especial, deliberando que Brasil debería eliminar los subsidios del PROEX en los 90 días siguientes a la adopción del fallo.

## 5. Consideraciones finales

La presentación concisa de los resultados de los dos casos sobre subsidios ante la OMC no hace justicia a los elegantes y detallados planteamientos jurídicos que componen los informes de los grupos especiales y del Órgano de Apelación. Conceptos, reglas y procedimientos de los Acuerdos respectivos son revisados continuamente por el sistema de solución de controversias generando una jurisprudencia que amplía los compromisos iniciales.

Los dos fallos representaron una doble derrota para Brasil. La primera, por no poder demostrar con precisión, por falta de pruebas conclusivas, la extensión de los subsidios canadienses. La segunda, por verificar que su situación de país en desarrollo no le facultaba mantener subsidios claramente comprobados como prohibidos, dado que no había cumplido con otras condiciones del acuerdo.

El Acuerdo sobre Subsidios y Medidas Compensatorias representó una gran concesión de los países en desarrollo a la normativa de comercio internacional, por dos razones: porque estos países aceptaron disciplinas multilaterales a los subsidios a la exportación, y la inclusión de disciplinas a los subsidios orientados hacia las industrias sustitutivas de importación. Por un lado, lo hicieron, porque necesitaban de mayor protección multilateral contra las prácticas de economías más poderosas, que aplicaban medidas compensatorias unilaterales y arbitrarias, sin un proceso justo de identificación de pruebas de daño. Asimismo, porque suponían que el trato especial y diferenciado les permitiría mantener sus instrumentos de promoción de exportaciones por un cierto periodo de transición.

A su vez, el Órgano de Solución de Controversias de la OMC no es un Tribunal de Comercio Internacional. El OSC opera bajo las restricciones de su mandato específico dictado por las reglas de la OMC, ampliada y especificada por la jurisprudencia de su práctica legal. Pero, también opera bajo las restricciones del derecho público internacional, es decir, enfrenta las dificultades de imponer sanciones a Estados soberanos y de efectividad de los fallos. El OSC recomienda la eliminación de una determinada medida que fue juzgada incompatible con las obligaciones del Miembro ante la OMC, y cuya ejecución disminuye o menoscaba los derechos de otro o otros Miembros. El propósito de la acción del OSC es la eliminación de la medida, a través de la persuasión y negociación entre las partes. En la ausencia de un entendimiento, posteriormente a la adopción del informe del Órgano de Apelación, el país querellante puede imponer derechos compensatorios.

**COURTING FDI: IS COMPETITION BAD?**

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## Abstract

This paper examines the convenience of banning the use of subsidies to attract foreign direct investment. We find that competition with subsidies achieves the efficient allocation of investment projects. The effect of banning subsidies on the welfare of the host countries is ambiguous, and depends on the differences in social returns of investment among them. Eliminating subsidies benefits host countries only when these are sufficiently similar. In addition, we find that the best alternative for host countries is to delegate the decisions regarding the maximum subsidy allowed to a supra-national authority. Provided countries with the highest social returns are also those with the highest private returns, this solution achieves the efficient outcome, and at the same time maximizes welfare for the host countries.

## I. Introduction

One of the most important features of the trend toward globalization in recent times has been the increased importance of foreign direct investment around the world. Together with this increase in FDI, competition among potential hosts to attract FDI has intensified as well. To the extent that foreign direct investment projects generate positive externalities for the host countries, related to activities such as innovation or labor training, there is a case for countries to offer subsidies in order to lure potential investors to locate within their boundaries. However, the increase in the intensity of competition observed in recent years has raised concerns regarding its effects on the welfare of host countries. In particular, as a result of competition, foreign firms may be able to appropriate all the benefits associated to FDI. This raises a number of important questions: What are the effects of competition for FDI on the welfare of the world as a whole? Are host countries better off by banning incentives for FDI? Should these countries restrict competition in any way? In this paper, we develop a model of competition for FDI in order to answer some of these important questions.

A striking illustration of the increased intensity of competition for FDI is provided in table 1, which is reproduced from Oman (2000a). The table, which is based on unofficial sources, shows the cost of the subsidy per worker for a set of 14 FDI projects in the automobile sector, both in developed and developing countries, during a period spanning from 1980 to 1997. The escalation of costs is remarkable.

**Table 1**  
**Investment Incentives in the Automobile Industry**

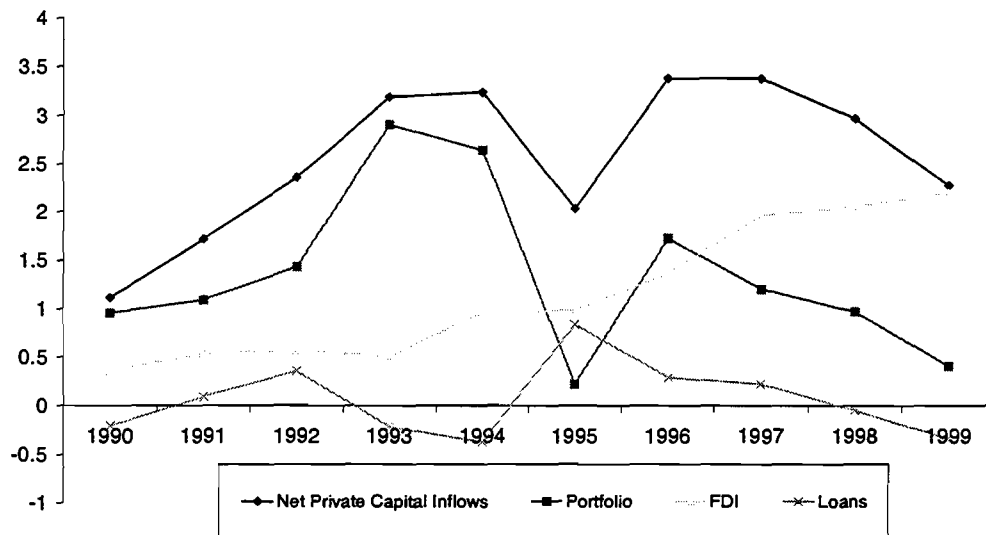
Date of Package	Country of Project	Investor	Amount per Job* (US dollars)
1980	United States	Honda	4000
Early 1980s	United States	Nissan	17000
1984	United States	Mazda-Ford	14000
mid-1980s	United States	GM Saturn	27000
mid-1980s	United States	Mitsubishi-Chrysler	35000
mid-1980s	United States	Toyota	50000
mid-1980s	United States	Fuji-Isuzu	51000
Early 1990s	United States	Mercedes Benz	168000
1992	Portugal	Ford-Volkswagen	265000
1995	Brazil	Volkswagen	54000-94000
1996	Brazil	Renault	133000
1996	Brazil	Mercedes Benz	340000
1997	Germany	Volkswagen	180000
1997	India	Ford	200000-420000

Note\*: Estimated value of fiscal and financial incentives supplied by national and sub-national governments to a particular investment project, divided by the number of jobs the project was expected directly to create.

Sources: Unofficial, cited in Donahue (United States), Bachtler et al. (Europe), Da Motta Veiga and Iglesias (Brazil) and Venkatesan et al. (India)

and fiscal autonomy of subnational governments. In some countries, such as Brazil, subnational governments have also recently become major players in this game. In fact, the escalation of subsidies for FDI in the automobile sector shown in table 1 has for the most part resulted from competition among subnational units of government within the same country, rather than competition among countries.

**Figure 2: Net Private Capital Inflows, Portfolio, FDI and Loans in Latin America, 1990-99**



Note: As percentage of GDP.  
Source: Balance of Payments, IMF.

The relevant space of competition for FDI is defined not only by the willingness of potential host countries to engage in competition, but also by the nature of the goods produced, and the existence of natural and policy-induced barriers to trade. The more tradable the goods, and the lower the barriers to trade, the greater the scope for competition. The reduction in trade barriers experienced in most of the world has increased the space of competition. Similarly, the appearance of new activities such as e-business, which can provide similar services to the entire world from any location, may potentially increase the intensity of competition as well.

Competing by offering subsidies is not the only way for countries to court potential investors. Oman (2000b) discusses other forms of competition, both benign and potentially harmful. Countries could compete by improving their institutions, the quality of their labor force or the quality of their infrastructure. This competition, which Oman refers to as "beauty contest" would obviously have positive externalities. On the other hand, countries could compete by relaxing labor or environmental standards, which could have obvious adverse effects on the welfare of the population. While these other forms of competition may also be important, in this paper we focus exclusively on the effects of incentive-based competition.

## II. A simple model of competition for FDI

In this section we consider the returns of FDI, both private and social. To the extent that social returns exceed private returns, i.e., there are positive externalities, countries may be willing to provide subsidies to ensure that investment takes place. To make the problem interesting we assume that there are in fact positive externalities associated with FDI, an assumption upon which most economists agree.

$$p+i \geq r \quad (\text{private incentive to invest})$$

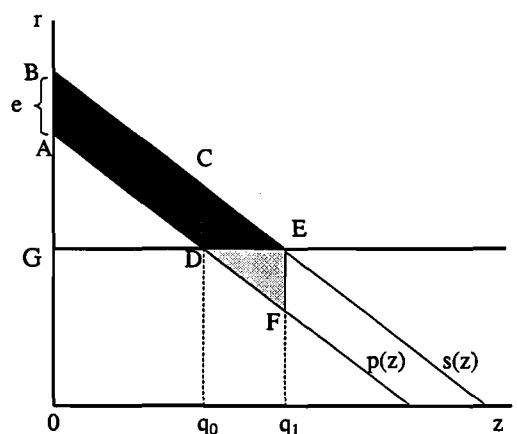
Equivalently, the transfer is minimized. Optimal transfer is  $t^*=r-p$ , so that that investment is made at the minimum return to the investor  $p+t^*=r$ . Note that since  $s=p+e \geq r$ , it follows that  $e \geq t^*$ .

Allocative efficiency is obtained because any efficient investment ( $s \geq r$ ) is realized. The maximum net benefit to the host country is obtained, as investors make zero profit. (Note that if private returns are very high, i.e.  $p > r$ , the optimal transfer is negative. If negative transfers are ruled out, efficiency is preserved. The benefit to the host country is correspondingly reduced, but it still benefits from positive transfers.)

The model presented here can be easily extended to a continuum of projects. Rather than a full blown extension of the analytical model, here we will present the argument in a graphical way, focusing in particular on a simple example which can provide further intuition for the results, and at the same time offer some additional insights.

Let us assume that there is a continuum of investment projects, which we will index by  $z$ , and that these projects are ordered according to the private rate of return on the investment in the host country. For the purposes of keeping the examples as simple as possible, we will assume that all projects generate an externality of the same size,  $e$ . Investors face a flat cost of borrowing,  $r$ . An investment project  $z$  is implemented in the host country when  $p(z)+t > r$ , i.e. when the private rate of return of the project plus the subsidy exceeds the cost of borrowing funds. The problem is represented in Figure 3. Assuming that negative transfers cannot be imposed, the government provides a transfer of  $\max(r-p(z), 0)$  just large enough for the project to be implemented. The total transfer is represented by the area DEF. If negative transfers are feasible, as in the analytical model, the transfer in each project is simply  $r-p(z)$ , which results in a total transfer equal to  $DEF - GAD$  which, as is obvious from the figure, can be negative. The total number of projects implemented is given by  $q_1$ , which is the efficient allocation (as in part 1 of Proposition 1). The net benefits for the host country are given by area ABCED, in case negative transfers are not possible, or simply GBE, the area between  $s(z)$  and  $r$ , if negative transfers are feasible. In each case, the net benefits for the host country are maximized (this corresponds to the second part of proposition 1).

Figure 3: The case of investment in non-tradables



If subsidies were banned, the quantity of projects implemented would be given by  $q_0$ , that is, the projects that do not require a subsidy, for which  $p(z) > r$ . Notice that in this case, some projects whose social rate of return exceeds the interest rate are not implemented, i.e., the outcome is inefficient. This

The solution to the above problem is such that the country with the largest social return gets the localization of FDI. In other words, transfer competition results in a social return equal to  $\text{Max}(s_1=p_1+e_1, s_2=p_2+e_2)$ , that is to say, allocative efficiency. Under our assumption ( $s_1 \geq s_2$ ), without loss of generality, FDI will localize in country 1 after it makes a winning transfer offer  $t^*_1=\text{Max}(r-p_1, s_2-p_1)$ . This offer gives the firm an overall return  $p_1+t^*_1$  that matches its cost of capital  $r$  and the social return in country 2, whichever is larger. The simplest case is the one in which the social return in country 2 is insufficient for a productive investment ( $s_2 < r$ ), which effectively removes competition. In this case the problem boils down to the non-traded case analyzed in the previous section, in which in fact  $t^*_1=r-p_1$ , and the conclusion follows.

The more interesting case is when country 2 is also efficient ( $s_2 \geq r$ ) and competition is relevant. In this case,  $t^*_1= s_2-p_1$ , larger than under no threat of competition. First we check that this is an incentive-compatible transfer, since under the assumption that  $s_1 \geq s_2$ ,  $e_1= s_1- p_1 \geq s_2 - p_1= t^*_1$  (the public incentive to attract FDI holds) and in this case  $p_1+ t^*_1=s_2 \geq r$  (private incentive to invest holds). Second we check that country 2 has no incentive-compatible transfer that beats this offer (the private incentive to localize in country 1 holds). In fact, with this offer the investor gets an overall return of  $p_1+ t^*_1=s_2$ . It is easy to check that this can be matched by country 2 if it offers  $t_2=e_2$ , so that  $p_2+t_2=s_2$ . However, country 2 could better this offer granting all of its social return to the investor only by offering a transfer in excess of its externality, which is a losing proposition. Finally, it is also clear that any lower offer by country 1 would be bettered by country 2.

Therefore, subsidies ensure that FDI localizes where it is most productive. This efficiency result may or may not translate into welfare gains for each individual participant, an issue which is not analyzed in this proposition. Nevertheless, an important corollary of this proposition is that within a symmetric set of countries in which all of them are both source and hosts of FDI in such a way that net subsidies are null in each individual country, this full efficiency result also means maximum welfare for each one.

**PROPOSITION 3. THE WINNING HOST COUNTRY CAPTURES A NET BENEFIT NOT LARGER THAN ITS EXCESS OF SOCIAL RETURN ( $S_1-S_2$ ).**

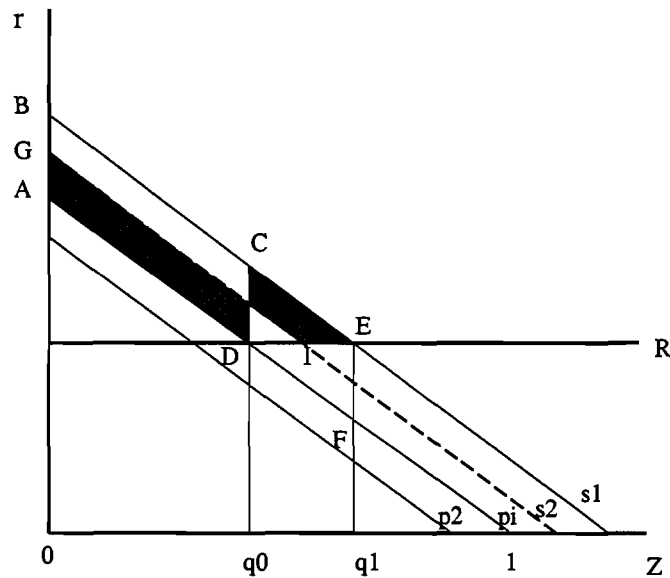
**COROLLARY: IF HOST COUNTRIES HAVE THE SAME SOCIAL RETURN, UNRESTRICTED SUBSIDIES LEAD TO INVESTORS APPROPRIATING THE FULL COMMON SOCIAL RETURN LEAVING NO NET BENEFIT FROM FDI TO COUNTRIES.**

**PROOF.** From Proposition 2, without loss of generality, winning host country 1 provides a transfer  $t^*_1= \text{Max}(r-p_1, s_2-p_1)$ . Its net benefit is therefore  $e_1- t^*_1=\text{Min}(s_1-r, s_1-s_2)$ , so that with effective competition from country 2 ( $s_2 \geq r$ ) the net benefit to country 1 only amounts to the excess of social return over country 2. At the same time, the investor obtains an overall return of  $\text{Max}(r, s_2)$ , so that, to the extent that there is effective competition, it gets the full amount of the social return in the losing country, a positive profit. Therefore if both countries have the same social return ( $s_1=s_2=s \geq r$ ), then the net benefit of the winning country is null and the investor appropriates the entire common social return  $s$  ( $p_1+ t^*_1=s$ ).

### *C. Should subsidies for FDI be banned?*

If subsidy competition to attract FDI leads to bidding wars to the benefit of foreign investors, it may be expected that a ban on subsidies, if enforceable, would work to the advantage of host countries. In this section we ask ourselves what would be the efficiency and distributional implications of such a ban, in particular concerning the welfare of host countries. To simplify the analysis, like in the previous section we consider a world in which the North (the source of FDI) considers whether to locate in the South, and if so, in which of the two Southern countries, 1 and 2. It is clear that any restriction to subsidies by

Figure 4: The case of investment in tradables



Unfettered competition, as always, leads to the efficient outcome. The efficient number of projects  $q_1$  get done, and they are all located in country 1, where the social rate of return is higher (this corresponds to proposition 2). Country 1 sets the optimal transfer  $t^*(z) = \min [ e_1, \max ( r - p_1, s_2 - p_1 ) ]$ , that is, a transfer that provides enough resources for the returns to the foreign firm to reach  $r$ , or to match the highest offer of country 2, provided it does not exceed the externality  $e_1$ . The total amount of the transfer (for the case of no negative transfers) is given by the area AGIEF, and country 1 appropriates net benefits given by the area GBEIH.

Under a ban on subsidies, the outcome is inefficient (proposition 4). The number of projects implemented in country 1 is  $q_1$ . In this case, net benefits for this country are given by the area ABCD. The two shaded areas in the figure represent the gains and losses associated with the ban. The area AGHD represents the gain from imposing the ban, while the area HCEI represents of the loss of such a policy. The net result is ambiguous (second part of proposition 4) and depends among other things on the excess of social return, and on the interest rate  $r$ .<sup>5</sup> It is easy to see from Figure 4 that if social returns across countries were similar ( $s_1(z) = s_2(z)$ ) any gains for the host country from competition in subsidies would dissipate, leaving host countries with no gains from FDI (corollary to proposition 3). Obviously, in this special case a ban on subsidies is convenient.

The bottom line of this section is that it is not clear whether a ban on subsidies improves upon unrestricted subsidy competition. Even if it does for the potential host countries as a whole, if there is FDI diversion the gains would be unevenly distributed. In fact, with the ban on subsidies FDI would switch from country 1 to country 2, which implies a loss to country 1. At the same time, if FDI continues to be localized in country 1, then country 1 wins from the ban. The net welfare impact on country 1 of adopting a comprehensive ban over all FDI projects depends on the distribution of projects. If this impact is negative, then such agreement would require side payments from country 2 to country 1 to make it incentive-compatible.

<sup>5</sup> For the example shown in the figure, with linear private and social return functions, it is easy to show that increases in  $r$  reduces the net gains from the imposition of a ban.



**PROPOSITION 5. AN AGREEMENT ON COMMON SUBSIDIES ACROSS COUNTRIES IS BETTER FOR HOST COUNTRIES THAN BOTH UNRESTRICTED COMPETITION AND A BAN ON SUBSIDIES.**

**PROOF.** The weak dominance of an agreement subject to non discrimination across countries is easily established by showing that it can always replicate the outcome obtained under both unrestricted competition and a ban on subsidies. First, a ban on subsidies is a particular case of a common subsidy agreement in which the subsidy is set equal to 0. Second, an agreement stipulating subsidy ceilings at very high levels, beyond those obtaining under unrestricted competition, would not be binding and therefore would allow unfettered competition.

However, dominance is strong. It suffices to show that in the absence of reswitching, from the previous Corollary we know that the first best is achieved setting a subsidy ceiling equal to the subsidy that country 1 would set in the absence of competition from country 2, along the lines of Proposition 1 for non-traded goods. In this region there is a strict improvement upon both alternatives.

### **III. Summary and conclusions**

In this paper, we have examined the consequences of competition among host countries to attract foreign direct investment, as well as the convenience of limiting this competition in different ways. Unfettered competition in subsidies achieves the efficient allocation of investment projects, but under some conditions may cause harm to the host countries, as the foreign firms may end up appropriating most of the net benefits of foreign direct investment.

The first policy measure we considered was a ban on subsidies. Eliminating subsidies reduces the welfare of the world as a whole, since the efficient allocation of investment projects is no longer achieved. As in the classic contributions of Viner (1950) to the theory of customs unions, there are two different effects of banning competition: FDI destruction (or negative FDI creation) and FDI diversion. By FDI destruction we refer to the case of investment projects for which the social return (but not the private return) exceeds the interest rate, which will not be implemented. By FDI diversion we refer to the case of investments that will be allocated to "the wrong country", one that does not have the highest social rate of return. In contrast to the case of customs unions, however, in the case of FDI both effects, destruction and diversion, go in the same direction. This means that, abstracting from distributional considerations, from the perspective of the welfare of the world it would make no sense to ban subsidies for FDI

Whether such a measure makes sense for the host countries is ambiguous. If the host countries are identical, the foreign firm appropriates all the net benefits under unrestricted competition, and the ban is convenient provided there is some investment which generates positive externalities that takes place. More generally, the convenience of a ban for the host countries will depend negatively on the difference in social returns among the host countries, and positively on the number of projects for which private returns exceed the interest rate, as well as on the size of the externalities associated with those projects in the countries with the highest private returns.

Regardless of the merits of a ban for the host countries *vis a vis* unfettered subsidy competition, it is possible for host countries to do better by delegating the authority to set the transfer schedule (or more precisely, a ceiling on transfers for each project) to a supra national government. In the case in which the country with the highest social rate of return for each project is also the one with the highest private rate of return for that project (i.e. the case of non reswitching), the supra-national authority would set a ceiling on subsidies equivalent to the subsidies chosen by a country in the case of non-traded goods, i.e, transfers which cover the difference between the interest rate and the private returns, without exceeding the size of the externality. This policy achieves the efficient allocation of investment and at the same time maximizes

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**SMALL ECONOMIES' TARIFF AND SUBSIDY POLICIES  
IN THE FACE OF TRADE LIBERALISATION IN THE AMERICAS**

By

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## Summary

The purpose of this paper is to examine from a macroeconomic perspective some of the fiscal issues which may arise from trade liberalisation in the smaller economies of Latin America and the Caribbean (LAC). The economic reforms implemented throughout the region invariably include programmes generally designed to lower tariff rates. They have important implications for the fiscal accounts of the smaller economies, traditionally more dependent on this type of revenue. The net result on government income remains an empirical question that depends on several parameters, such as price and income elasticity of the demand for imported goods, real income effects of trade liberalisation or exchange rate regimes.

Export revenues have to match the larger inflow of imports to allow a sustainable insertion into the international economy. Most smaller economies found themselves at a disadvantage when competing on international markets against their larger neighbours. Those that were successful in diversifying their non-traditional exports did so on the basis of active export promotion policies that included a sizeable component of tax subsidies and public investment.

Thus, competing in the global economy has a non-trivial impact on the fiscal balance of the small developing countries in the region. Reforming tax and export promotion policies is particularly difficult in these economies, for reasons directly linked to their small size and the fragile situation of their public finance.

Dependence on trade tax shown by most smaller economies is not only the result of historical conditions, but has practical reasons based on relative costs of tax administration. The technical complexity of implementing more neutral instruments such as value added taxes, or more equitable ones such as direct income tax, might be an obstacle for those smaller economies which cannot count on a large and well-trained public administration. Less selective export promotion policies are perhaps a better option from a theoretical perspective, but they are also more costly in the short term and their implementation is constrained by liquidity restrictions. However, looking at the future of regional and international integration, these reforms are inevitable for both legal and economic reasons. The time required and the costs of changing the present tax and incentive structure will be considerable for those countries and they should be able to count on the co-operation from their larger partners.

The first part deals with the fiscal implications of trade tax reforms on the smaller LAC economies. Following ECLAC (2000), smaller countries are defined as those with a population of 10 million or less at the beginning of the 1990s. The second part explores some of the issues linked with export diversification policies. A third section presents the conclusions of these two sections.

### **I. Trade reforms: Fiscal considerations and potential implications**

The process of trade liberalisation (including the reduction of tariffs, the tariffication of quotas and other trade restrictive measures, the elimination of licensing requirements, exemptions and preferences) has significant budgetary implications. These budgetary considerations may, at the same time, greatly influence the process and outcome of liberalisation. This is especially true for small economies which, as we shall see, rely heavily on international trade taxes for revenue generation and whose trade regimes may still include many exemptions, preferences and trade restrictive measures, such as quotas and licensing requirements.

revenues. All of these are relatively small economies, except for Colombia.<sup>3</sup> These small economies also have high trade exposure and are highly dependent on imports (worth around 60% of GDP). A second group of vulnerable economies with either large deficits and moderate dependency levels or moderate deficits and high dependency levels also include mostly small Caribbean economies except for Ecuador and Venezuela<sup>4</sup>. On the other extreme is Trinidad & Tobago, an oil-producing country, which has high trade exposure but has managed to have a diversified tax structure with increasing revenues and stable expenditures throughout the nineties.

**Table 4. Latin America and the Caribbean: Fiscal balance and dependency on trade taxes  
(1995-1999 averages)**

DEPENDENCY ON TRADE REVENUES	SURPLUS OR LOW DEFICIT	MODERATE DEFICIT	LARGE DEFICIT
LOW	Trinidad & Tobago	El Salvador Mexico	Bolivia Brazil Costa Rica Uruguay
MODERATE	Chile	Argentina Barbados Guatemala Panama Paraguay Peru	Ecuador Guyana
HIGH	Dominican Republic	Netherlands Antilles St. Kitts & Nevis St. Lucia St. Vincent & the Grenadines Venezuela	Antigua & Barbuda Bahamas Belize Colombia Dominica Grenada Haiti Honduras Nicaragua Jamaica

Note: Deficit levels are strictly for comparison purposes and do not necessarily imply fiscal fragility. These were determined by the average deficits during the period between 1995 and 1999. Countries at the upper end of the sample had average deficits of over 2% of GDP (and/or have had volatile changes in their deficits), a middle group had deficits between 1 and 2% of GDP and another group had surpluses or deficits of less than 1%.

<sup>3</sup> Although Colombia's trade is quite liberalised, trade revenues are still very important to the public finances. In addition, large transfers to its local governments and provinces have kept its deficits high throughout the nineties.

<sup>4</sup> Venezuela is a borderline case where trade revenues are fairly important, but its fiscal vulnerability comes mostly from the volatility of its oil revenues.

The level of public debt is another important variable to consider when looking into the sustainability of alternative scenarios for reforms and the capacity of public sector to buffer transitory shocks arising from trade liberalisation. In the medium and long run however, because of their high external debt, balancing the fiscal budget in smaller economies would not be sufficient if the stock of public debt is not reduced. Countries such as Honduras, Jamaica and Nicaragua that face the double threat of high dependence on trade revenues and high deficits, have also large amounts of external debt (see table 4 again). The first two have had stocks of around 50% to 100% of GDP during the latter half of the nineties. While Nicaragua has had close to 300% of GDP of external debt. All three countries are above the regional average of about 50%. In terms of debt per capita, Jamaicans and Nicaraguans carry a burden of approximately USD1300, again higher than the regional average of about USD1100. While each Honduran would theoretically have an external debt of around USD 600.

### *3. Some possible revenue implications of trade liberalisation*

The net impact of trade liberalisation on trade tax revenues is largely ambiguous, and depends on various factors. Trade liberalisation involves changes in the relative price structure and the removal of trade restrictions that usually increase the volume of imports. The ultimate impact of trade liberalisation on revenues will depend on the economic and trade structure of the countries, their policies and the behaviour of economic agents in response to the liberalisation process. These characteristics vary a great deal among the countries in the region and their numerical assessment is mainly an empirical question, requiring the use of country-specific macroeconomic simulation tools, such as general equilibrium models. Therefore, this section intends only to highlight some of the issues at hand.

The sequencing of the various aspects of trade liberalisation programmes and the timing of these programmes in relation to other complementary reform programmes such as tax reforms constitute some of the factors which determine the effects of trade liberalisation on the fiscal accounts. With regard to the trade programme itself, issues such as the elimination of exemptions, licensing requirements and quantitative restrictions or their tariffication before, after or at the same time as the reduction in tariffs are important considerations which have varying effects on the fiscal accounts. In addition, the volume effect of an increase in imports due to trade liberalisation may (and usually do) have a positive effect on revenues and compensate for the loss brought by the price effect of a lower tariff.

Case studies show both positive and negative effects on revenues, the net balance being difficult to forecast.<sup>5</sup> The reduction or elimination of tariffs on imports usually decreases revenues derived from international trade taxes. On the other hand, administrative considerations are also important in determining the final outcome of the tariff reduction, especially when it is accompanied by a more general fiscal reform.

Tariff exemptions, specially reduced tariffs and other trade discretionary measures (some of them directly related to export promotion policies, see part II) tend to have significant negative effects on the collection rate. Estimates of exemptions resulting in collection rates being 50 per cent lower than potential revenue are not uncommon.<sup>6</sup> The elimination of these exemptions and preferential tariff rates could enhance revenues by widening the import tax base. The increase of revenues will be proportional to the pervasiveness of these preferences in the tax system. Reduction in prohibitively high tariffs whose

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<sup>5</sup> Pritchett and Sethi (1993) case study on three countries documents four facts: (1) there is almost no empirical relationship between the official tariffs and the collected taxes; (2) the higher the official tariff, the higher the variation of collected taxes; (3) the collected taxes increases much less than one-for-one with the official tariffs; and (4) above a certain level, collected rates do not increase at all despite increases in official tariffs.

<sup>6</sup> See IMF 1994

during the period under review, national authorities would have been tempted to increase the trade tax revenues when their fiscal situation was weak.

The results obtained pooling cross-section data over the 1981-1996 period confirmed the a priori expectations.

**Table 6 Econometric Analysis of Revenue Implications of Trade and Fiscal Reforms \***

Dependent Variable: Trade Tax Revenues relative to GDP (%)		
Explanatory Variables	Coefficient	t-Statistic
GDP growth rate (%)	-0.12	-4.38
Trade value (% of GDP) **	0.83	2.67
Trade reform index***	-1.23	-4.48
Fiscal reform index***	1.18	8.66
Previous fiscal balance	-0.03	-2.35
R2 (weighted)	0.98	
R2 (unweighted)	0.90	

Notes: \* Panel of 5 year average observations for 16 Latin American and Caribbean countries, 1981-1996. Regression used General Least Squares with fixed effects and cross section weights, totalling 48 observations.

\*\* Value of imports and exports relative to GDP, in logarithm.

\*\*\* Logarithm of the corresponding reform indexes at the beginning of each period, as published in Morley S. et al: Indexes of structural reform in Latin America, ECLAC January 1999.

All coefficients have the expected sign and are highly significant. Overall explanatory power of this simple model is very good, as shown by the R-squared, albeit further econometric testing is limited by the reduced number (3) of observations for each country.

Trade reforms, which usually include a reduction in average tariff on imported goods and services and an elimination of taxes on exports, reduce the government revenue per unit of traded goods and services. As mentioned earlier, this effect can be partially offset (or even totally, as it occurred in some countries) by the impact on the volume of trade, especially the increased demand for imported goods. Fiscal reforms, once the specific impact of trade reforms and other economic variables are discounted, tend to increase the trade tax revenues (e.g., by reducing evasion). For a given external tariff, better overall fiscal administration and procedures tend to increase trade tax revenues for given levels of trade and tariff.

It is also of interest to note that countries in the sample tended to rely more on trade taxes when the global fiscal situation in previous periods was negative. This tendency has been observed in several instances, when trade taxes were raised in order to compensate for negative fiscal results, reverting –at least temporarily– the previous advance in trade liberalisation (Chile, Bolivia).

#### **b. Average tariff and total trade revenues**

In this line of thought, other empirical studies suggest that there is a tariff rate that maximises trade tax revenues: above this ceiling, revenues are lost because of evasion and low demand for imports, below this level, revenues are lost because of the low tariff. A recent IMF study, conducted world-wide on a large set of developing countries, set this optimum at 20% (Ebrill 1999).

This 20% optimal rate found at international level is also above the present regional average, which means that further reduction could have in theory a negative impact on tax revenues in Latin

Table 1 Total Tax Revenues (as a percentage of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>South America and Mexico</b>										
<b>Average</b>	9.9	10.6	11.3	11.8	12.3	12.2	12.0	13.0	13.4	13.4
Argentina	12.4	14.2	16.5	17.9	17.7	17.3	16.0	17.3	17.6	17.6
Bolivia	8.2	8.7	10.7	11.4	12.4	12.4	12.3	14.5	16.3	18.1
Brazil	10.2	10.0	9.4	10.6	13.2	12.6	11.8	12.6	14.5	15.0
Chile	14.5	16.7	17.3	18.0	17.5	17.0	18.2	17.6	17.8	16.9
Colombia	9.3	10.7	11.2	11.6	11.8	11.4	11.5	12.2	10.5	10.8
Ecuador	7.6	7.6	7.2	7.4	7.7	8.0	7.2	9.3	9.9	9.8
Mexico	11.5	12.0	12.4	11.4	11.3	9.2	9.0	9.8	10.5	11.2
Paraguay	9.5	9.4	9.3	9.4	10.7	12.2	11.5	11.8	11.6	10.8
Peru	7.7	8.9	10.0	10.1	11.2	11.6	12.1	12.1	12.1	11.4
Uruguay	14.4	14.3	14.9	14.7	13.1	14.6	14.9	15.8	16.1	15.4
Venezuela	3.7	4.4	5.5	7.2	8.7	8.2	7.9	9.8	10.3	10.3
<b>Central America and Latin Caribbean (Dominican Republic and Haiti)</b>										
<b>Average</b>	11.1	11.8	12.1	12.0	11.4	12.7	12.6	13.3	13.7	13.7
Costa Rica	14.0	11.4	12.0	12.1	11.7	12.5	12.7	12.6	12.8	12.5
Dominican Republic	10.5	11.8	13.8	14.8	14.0	13.8	13.1	14.7	15.0	14.4
El Salvador	9.1	9.5	9.6	10.3	10.9	12.0	11.3	11.1	10.3	10.5
Guatemala	6.8	7.3	8.2	7.8	6.7	8.0	8.8	9.4	9.6	10.0
Haiti	8.7	9.5	6.1	5.5	2.6	6.4	7.5	9.2	8.9	9.1
Honduras	14.1	14.5	15.4	14.8	14.3	15.7	14.4	14.1	17.0	17.7
Nicaragua	13.5	17.7	19.2	18.7	19.3	20.6	20.7	23.0	24.1	23.0
Panama	11.7	12.5	12.5	12.1	11.8	12.5	12.1	12.5	12.1	12.6
<b>Non-Latin Caribbean</b>										
<b>Average</b>	20.9	20.9	21.4	21.9	20.8	21.1	21.2	21.3	21.6	...
Antigua & Barbuda	17.3	17.0	17.1	17.1	17.5	17.8	18.5	17.9	17.5	...
Aruba	16.6	18.2	18.5	19.4	18.5	18.2	17.9	16.9	17.4	...
Bahamas	14.2	14.3	15.3	14.7	16.5	16.7	16.5	16.7	16.5	...
Barbados	25.3	26.9	26.0	27.9	27.0	27.8	27.7	30.7	30.0	...
Belize	21.5	21.8	20.8	20.9	20.6	20.6	19.4	19.8	19.3	...
Dominica	24.7	24.3	24.5	23.2	22.0	23.3	23.5	23.4	23.8	...
Grenada	21.9	21.5	21.9	23.1	21.8	22.6	22.7	21.9	22.2	...
Guyana	28.8	25.7	35.9	35.7	29.8	31.4	32.3	29.6	28.6	...
Jamaica	23.8	22.9	22.7	25.4	24.9	26.1	24.8	24.5	26.3	...
Netherlands Antilles	6.5	6.8	7.0	7.6	7.8	7.6	8.6	10.1	10.3	...
St. Kitts & Nevis	19.9	19.3	19.5	21.2	21.1	21.3	21.5	22.2	22.7	...
St. Lucia	22.3	23.0	23.3	23.0	22.2	21.8	21.4	21.6	22.0	...
St. Vincent & the Grenadines	25.3	24.1	22.5	22.8	23.9	23.2	24.3	24.3	24.6	...
Trinidad & Tobago	24.6	27.5	24.6	25.7	17.6	17.5	17.7	18.4	21.2	...

Source: ECLAC based on official national data.

Note: Tax revenues vary among the countries but they generally include taxes on income and profits, taxes on property, taxes on domestic goods and services and taxes on international trade



**Table 3 Trade Tax Revenues (as a percentage of total tax revenues)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>South America and Mexico</b>										
<b>Average</b>	<b>19.8</b>	<b>16.9</b>	<b>15.4</b>	<b>14.3</b>	<b>13.6</b>	<b>13.9</b>	<b>12.5</b>	<b>12.7</b>	<b>13.6</b>	<b>11.6</b>
Argentina	12.1	5.9	5.9	6.2	6.3	4.6	4.9	5.7	5.1	4.5
Bolivia	16.6	13.0	12.1	11.5	11.5	11.5	10.6	9.7	9.4	8.3
Brazil	...	0.0	5.0	4.2	3.9	6.0	4.6	4.7	5.0	5.2
Chile	16.6	13.8	12.7	12.2	11.4	12.4	12.1	10.8	10.1	9.5
Colombia	26.0	26.0	21.3	26.1	26.8	27.5	24.5	24.7	26.7	20.4
Ecuador	31.6	28.2	24.0	22.9	23.8	23.0	19.3	24.5	31.6	25.6
Mexico	8.4	10.1	10.6	9.3	8.2	6.7	6.6	5.8	5.3	5.3
Paraguay	25.4	22.9	18.3	18.4	18.2	22.9	19.4	19.6	19.3	14.9
Peru	10.4	10.0	10.6	12.4	12.4	13.2	12.2	10.9	11.1	10.9
Uruguay	15.3	13.4	11.2	8.0	8.2	6.8	6.4	6.7	6.8	6.1
Venezuela	35.6	42.2	37.2	25.9	18.9	18.2	17.1	16.5	19.2	16.8
<b>Central America and Latin Caribbean (Dominican Republic and Haiti)</b>										
<b>Average</b>	<b>26.4</b>	<b>25.2</b>	<b>24.7</b>	<b>24.7</b>	<b>23.7</b>	<b>26.1</b>	<b>24.0</b>	<b>24.1</b>	<b>24.0</b>	<b>23.3</b>
Costa Rica	28.2	30.2	25.1	23.3	22.4	51.8	46.5	46.0	47.6	43.2
Dominican Republic	38.7	34.0	41.0	37.1	31.5	29.1	28.9	28.6	28.6	31.3
El Salvador	21.6	21.3	18.2	19.3	19.4	17.4	14.0	11.8	11.9	11.4
Guatemala	22.5	19.2	25.4	22.7	23.6	23.6	17.5	15.0	14.5	13.6
Haiti	18.9	21.0	16.1	16.4	13.1	19.0	15.6	21.8	21.0	21.5
Honduras	38.0	36.8	31.8	29.5	29.7	25.9	26.5	24.9	17.7	14.7
Nicaragua	21.5	20.3	20.3	21.5	21.7	23.2	22.6	24.1	28.0	31.2
Panama	22.0	19.1	19.7	28.1	28.5	19.1	20.3	20.2	22.8	19.8
<b>Non- Latin Caribbean Countries</b>										
<b>Average</b>	<b>42.4</b>	<b>40.5</b>	<b>39.6</b>	<b>40.6</b>	<b>41.1</b>	<b>40.8</b>	<b>39.5</b>	<b>36.6</b>	<b>36.5</b>	<b>...</b>
Antigua & Barbuda	30.8	29.6	28.9	28.2	29.6	29.9	31.1	31.0	30.7	...
Bahamas	62.0	66.4	66.0	64.6	67.9	67.1	65.5	66.5	66.1	...
Barbados	13.0	9.3	8.1	7.9	17.9	17.0	14.2	10.2	10.4	...
Belize	62.3	61.5	61.1	56.9	56.3	56.3	58.8	33.8	36.8	...
Dominica	57.9	54.7	55.1	55.6	56.4	54.1	53.2	54.3	53.8	...
Grenada	75.8	62.8	58.9	57.1	56.4	53.5	60.4	63.9	64.4	...
Guyana	16.3	16.3	12.5	16.0	15.4	15.0	14.6	13.9	14.3	...
Jamaica	21.0	23.1	24.7	28.3	26.1	30.7	29.0	29.8	30.0	...
Netherlands Antilles	49.7	47.9	46.7	56.7	55.0	56.8	43.5	27.6	28.9	...
St. Kitts & Nevis	64.8	62.7	62.1	64.2	61.6	59.2	54.4	53.9	49.7	...
St. Lucia	62.8	56.1	50.2	51.7	53.1	55.0	54.2	56.0	53.6	...
St. Vincent & the Grenadines	25.6	27.4	30.7	30.3	26.8	27.1	26.3	25.9	25.6	...
Trinidad & Tobago	8.9	9.1	10.2	10.9	11.9	9.1	8.5	9.2	9.9	...

Source: ECLAC, based on official national data.

the smaller economies of the region which are either islands (the Caribbean) or land-locked (Bolivia, Paraguay). The higher "unit" cost of public goods or the sub-optimal level of infrastructure found in small economies because the non-divisibility of most public infrastructure can also be classified under this item.<sup>12</sup>

Economies of scale explain most of the stylised facts of the new developments of trade among developed countries (intra-firm trade) but also among Latin American countries. As stated by Devlin and French Davis (1999), regional integration builds on strategic considerations arising from imperfect and incomplete markets. For many non-traditional Latin American products, the access to markets is more limited and unstable, making economies of scale, the emergence of externalities of location and agglomeration and specialisation more difficult to achieve.

Empirical evidences at international level world tend to confirm that smaller developing countries have an initial disadvantage. Cross-country regressions using world-wide data show that large developing countries do have a much higher per capita income than small developing ones (if one exclude very small countries from the later group). The same patterns may be found when analysing growth rates, indicating that being a small developing country (albeit not a very small one) involves probably some disadvantage. This handicap is conditional to development level, and no such difference exists among the three groups of large, small and very small countries when running cross-country regression for developed economies (Salvatore 1997).

Correcting initial market imperfections in smaller developing economies call usually for public interventions. There is indeed a long tradition of trade subsidies in the LAC region to protect infant industries. While the cause for import-substitution related subsidies has not survived the criticism of economists on the basis of welfare enhancement, efficiency and sustainable growth, there is still a strong demand for actively promoting export interests. It should be noted that in the Hemisphere, this trend is not only present in the small developing economies but may be found in the large semi-industrialised Latin American countries and in the industrialised part of North America.<sup>13</sup>

## ***2. Trends in export diversification policies***

Although policies aiming a promoting new exports need not be restricted to public sector, the small size of the private firms in small economies means that most of them are undertaken with the participation of the state. In consequence, they usually do represent a cost to the public budget, either direct through an increase in current or capital expenses, or indirect (in the form of lost actual or future income, or increased liabilities).

### **a. Upgrading the productivity of domestic firms**

Albeit the case of subsidies for export promotion is stronger than that for import substitution, academic economists are usually critical of export subsidies on the basis of welfare maximisation

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<sup>12</sup> See for a review of these specific costs and vulnerabilities, the chapter 11 of ECLAC (2000), and Escaith and Pérez (1999)

<sup>13</sup> In the USA, the income tax benefits provided to exporters is equivalent to 1% ad valorem subsidy of total export, according to Desai and Hines (2000). This 1% subsidy represents a much higher share of the profits made on exports, and proved particularly important to promote export activities among small firms.

Unfortunately, the state of the public finance of most small developing countries in the region and the urgency of other expenses did not allow for a comprehensive balanced strategy. A way of focusing the limited financial resources of the public sector was to concentrate the funds on specific investments, most directly linked with export activities: ports, export processing zones (EPZ) or the development of clusters.

#### **b. Neutralising the existing anti-export bias and levelling the playing field**

This objective is among the first one presented to defend and justify export promotion policies. The anti-export bias is still present in many LAC countries, especially in the smaller ones where tariffs are on average higher and more dispersed. Some correcting measures, such as streamlining formalities, reforming custom administration and reducing red tape, do not entail a financial cost for the state. In large semi-industrialised LAC countries, removing these obstacles and correcting the macroeconomic prices (especially the real exchange rate) were very effective in promoting non-traditional exports.<sup>15</sup>

Nevertheless, we saw that in the specific context of small economies, the anti-export bias argument should include also the specific costs facing domestic firms producing tradable goods and services, most of them associated with the existence of externalities and economies of scale. Providing (pioneer) companies in small economies with public assistance that enables them to start their operations allow them to reach production levels compatible with economies of scale. As recognised by Tanzi and Zee (2000), "a conceptually legitimate purpose for granting tax incentives is to rectify some forms of market failure, most notably those involving externalities" (p. 25).

Most subsidies in LAC small economies take the form of tax holidays, not only exempting capital and intermediate goods used to produce exports from tariffs but also extending profits from direct taxation. Typically, these privileges are granted only to firms operating in certain areas (export processing zones) where it is easier to control that the exempted purchases are not diverted to the domestic market. But there are numerous exceptions to this rule, and firms may benefit from the "maquiladora" regime without being physically located in the processing zones (El Salvador). In-bound firms are also exempted from direct taxes, and this subsidy is also extended to other type of export diversification, in particular to encourage investment in international hotels in Central America and the Caribbean.

A special case is the promotion of the export of services through off-shore financial services. As other EPZ, their operations are exempt of taxes.<sup>16</sup> In many small countries –principally Caribbean– they benefit also from "stream-lined" legal and prudential supervision. This activity is now under severe vigilance from OECD countries, for reason of tax evasion and money laundering.

### **3. Selected country experiences**

The smaller economies' experience in increasing their level of export and developing a more diversified export base has been quite diverse (see table 7). The existence of preferential access to a large country's domestic market (on the basis of close geographical proximity and/or special treatment) is one of the factor that may explain the differences. Domestic policies, and in particular export promotion, are another explicatory factor.

<sup>15</sup> According to Nogues (1989) in the 1980s Mexico diversified more effectively its exports by simply removing the bias against exports, without subsidising them, than did Brazil in the 1970s, relying on subsidies.

<sup>16</sup> Even a country like Chile had eventually to use tax subsidies to promote this type of operations, extending in 2000 tax exemptions on capital gains to non-residents.

competing on lower salaries and more generous subsidies.<sup>18</sup> Maquiladoras represent now 25% of formal industrial employment in Central America. Costa Rica was nonetheless able to maintain its advantage when it up-graded into high value added maquiladora with Intel investing 500 million dollars to develop high technology activities in EPZ. The exports from EPZ jumped from 891 millions dollars in 1997 to 3 567 millions in 1999, contributing 54% of the total exports of goods.

Haiti was in fact the pioneer in basing its industrial strategy on export processing zone, and created in 1971 a quite successful EPZ for assembly plants. Nevertheless, the adverse political situation that has affected this country led to the gradual disappearance of these industries. It is now the neighbouring Dominican Republic that represent in the Caribbean context the most successful example of adaptive transition into the international economy through export diversification. Exports from the EPZ grow at a yearly average of 38% between 1986 and 1989, 35% between 1990 and 1994, only to slow down at a healthy 10% between 1995 and 1999 (CEPAL, 2000). 200 000 people worked in the free zones in 1999, and the national value added to these exports (salaries, services and other inputs) represent 20% of the total.

Other success story of this Caribbean country is the development of its tourism industry, which in 1999 generated income for more than 2.5 billions of US dollars, against 820 millions in 1990 and 450 in 1985. This was made possible by huge investments in tourism infrastructure. Hotel capacity increased by 120% in the second half of the 1980s, between 1986 and 1990, and registered an healthy 160% growth during the 1990s.

The diversification into new export activities was helped by generous fiscal incentives, tax holidays (10-year holiday for the payment of corporate income tax, exemption of duties, tax credit for 15% of non-traditional exports), and financial subsidies to build the necessary infrastructure (hotels in particular, but also roads and others). Two of these funds (FIDE and INFATUR) represented a value of 1.1% of GDP in 1986. Thanks to the existence of multiple exchange rate, export activities in the Dominican Republic benefited also from a quasi fiscal subsidy, buying inputs at the official exchange rate but selling the proceedings at the extra-official one.

The export promotion programmes implemented in Central America and the Caribbean during the last two decades were closely related to the preferential treatment these countries received in the US sponsored CBI.<sup>19</sup> This preferential access (which amounted to an export subsidy, but financed by the importing country<sup>20</sup>) was instrumental in promoting export diversification in those countries that were able to seize the opportunities. As illustrated by the table 8, market shares gained with this preferential treatment have been eroded by the signature in 1993 of the NAFTA. According to the organisation representing EPZ in the Dominican Republic, it represented a 14% loss in potential exports for the year 2000 (CEPAL, 2000). The preference was partially up-graded in October 2000, reducing –with some restrictions– the gap between the preferential treatment offered on the US market for CBI and NAFTA imports. Nevertheless, the extension of the tariff exemption has a time limit, up to September 2008 or the signature of the Free Trade Agreement for the Americas (FTAA), scheduled for 2005.

<sup>18</sup> CEPAL (1999) signals that, as in the 1970s, Central American countries are once again immersed into an inefficient competition to attract foreign investment, where the generosity of the tax subsidies contrast with the precarious situation of the public finances.

<sup>19</sup> Caribbean countries received also preferential "ACP" treatment from the European community, under the successive Lomé agreements. Nevertheless, these mainly benefited their traditional (especially banana, but also sugar and rum) exports under the special protocols. These agreements have been recently renegotiated to follow the guidelines of the WTO, but the banana regime remains an object of conflict with the USA.

<sup>20</sup> Albeit the programme allowed the US textile industry to find a market for their products which were previously displaced by imports of Asian garments made of non-US inputs. See Gereffi (2000).

### ***BOX 2 The special case of subsidising agriculture***

With a few exceptions, most economic reforms in the agricultural sector were implemented during the second half of the 1980s or later, coincidental with (albeit without obvious causal relationship, because the trend occurred in an unfavourable national and international environment) a contraction in agricultural GDP and rapid recovery of agricultural exports.

The opening of the national markets linked to the structural reform process or the signature of regional trade agreements shackled the domestic price structure and put some domestic producers in difficulties (maize in Mexico vs. US production, soy in Colombia vs. the Bolivian production). Caribbean countries present a specific case where one of the consequences of the Uruguay Round Agreements is the reduction and dismantlement of the preferential access to the European market their traditional banana producers were granted under the Lomé agreements.

Adjusting production to the new market signals is always a challenge for private industrial enterprises, but it is even more difficult in agriculture, due to the heterogeneity of the sector. Traditional farmers in particular face serious challenges when trying to diversify into non traditional products due to the lack of capitalisation, the unavailability of funds, inadequacy of production technologies or weaknesses in the processing, transport and marketing services. An additional argument for protecting domestic agriculture is that agricultural exports are heavily subsidised by the more developed trading partners, thus domestic producers cannot compete at the artificially low international price. However, Panagariya (2000) maintains that in this case, subsidising exports to neutralise the effect of this subsidy would be a loser strategy for the smaller country.

Agriculture is a sector where state initiative definitely crowds-in private investment. The sectoral data review in Spoor (2000) suggest that there were several instances in which public intervention in "market led" reforms have paid off. In the region, Chile is the archetype of successful diversification of agricultural exports, including forestry and fisheries. In this country, state initiatives were fundamental to assist in the deployment of private initiatives in fruit and tomatoes production, salmons and forestry, all directed towards the export market (CEPAL, 1997). Same thing occurred in Colombia for cotton, palm, sugar and coffee, the extension of the production frontier in Brazil or the development of non traditional agricultural exports in Costa Rica. What is more, there are indications from the above mentioned sectoral review that the early optimism regarding small farmers and peasants options for modernising through market-led spontaneous commercial contracts with agribusiness seems to be largely unfounded. After two decades of adjustment, the wave of second generation of reforms is likely to place a renewed emphasis on the role of public intervention in agricultural development.

## **III. Conclusions**

This section presents the conclusions on the future of the smaller LAC countries' trade tax and export diversification policies in the perspective of increasing trade liberalisation.

### **1 Trade taxes**

The smaller economies in the region with a high level of dependency on trade revenues and a fragile fiscal situation are most vulnerable to the possible negative effects of eminent tariff reforms. From a macroeconomic point of view, the best alternative is to reform the tax system, to increase domestic taxes even when the trade tax revenues are not expected, at least in the short run, to be negatively affected by trade liberalisation. Moreover, a sounder fiscal base would improve long term growth prospects, while

easier and more common in the medium term with an increasing number of labourers eventually moving to lower tax countries.

Furthermore, regional pressure to work towards balanced budgets from both external (international financial institutions, macroeconomic convergence or eligibility criteria) and domestic sources (fiscal discipline laws) make it imperative and urgent that governments have more robust revenues since expenditure needs are also on the rise (social and infrastructure needs).

## 2 Export promotion

Like the other LAC countries, most of the smaller economies in the region went through a series of structural reforms from a phase of import substitution to market oriented economy. Yet, stylised facts from the successful stories of export diversification during the last two decades point to the active role of government export promotion programmes and fiscal subsidies in setting the necessary conditions for a dynamic and diversified export-led economy.

The shortcomings of a pure market (*laissez-faire*) approach to guaranty their successful reinsertion into the global economy may be linked to the incomplete market structure of these small economies, the small size of the domestic industrial base in these countries and the higher marginal production cost inherent to the low scale of production. They made it almost mandatory to use active export promotion programmes, including fiscal subsidies, to diversify the export base.

First best export promotion public sector policies are believed to be of the horizontal type, from providing an adequate level of infrastructure, reducing bureaucratic red-tape, co-operating in research and development programmes or giving assistance for gathering information on market opportunities. Financial types of export "subsidies"<sup>23</sup> seem also to be gaining acceptance in recent years, in particular export-credit financing and insurance at international market rate.

Nevertheless, these unfocused horizontal policies may represent an important cost for the public finance of many small LAC countries while benefits are diffuse and uncertain. For much of the same reason that unit production costs are higher in small firms than in larger ones, the expenses for providing public goods such as infrastructure, consular services, trade negotiation expertise, are comparatively higher than in larger countries. Peres and Stumpo (2000), reviewing the behaviour of small and medium sized companies in the region, recognise that (even in large countries), public policies based on new efficient instruments had little impact on this segment of firms because lack of financial and human resources for implementation. Horizontal type of public programmes are also believed to be effective only in the longer run, while economic and political considerations in these small economies, heavily dependent on their foreign sector, call for faster responses.

The financial capacity of the public sector to undertake new programmes in small economies is also limited by their weaker financial situation. Non-discriminating approaches (e.g., through large scale investment in human and physical capital) have a cost that many public budget cannot afford. In contrast to large developing economies, shallow domestic financial markets and the small size of the private sector restrict the possibility of transferring part of the cost to the private sector through privatisation or concessions.

In this framework of liquidity restrictions, tax holidays and investment subsidies warranted to a specific group of exporters, despite all the risks in terms of rent seeking and time consistency, remains the best feasible option: direct costs in public infrastructure are focused and limited to certain areas (ports,

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<sup>23</sup> At rates that are competitive internationally, but not further subsidised in order to remain compatible with WTO rules.

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**SESION 5**

**E-GOBIERNO Y GOBERNABILIDAD:  
PERSPECTIVAS Y EXPERIENCIAS NACIONALES  
EN OPERACIONES DE TIPO G2G, G2P Y G2C  
(CON ENFASIS EN CONTEXTOS DE GOBIERNOS FEDERALES)**



**DIGITAL GOVERNMENT AND E-GOVERNANCE:  
PARTNERSHIPS, PEOPLE AND PROSPECTS**

By  
**Jeffrey Roy**

### Abstract

*The objective of this discussion paper is to examine the capacity of government to effectively harness information technology (IT) as an enabling force in order to meet the new challenges of a digital age. Yet, there is a considerable risk that effective adaptation and change may be blocked by an administrative culture ill suited for the new world of e-governance. In terms of how state organizations and democratic institutions respond, two sets of explanatory factors will be determinant. First, partnerships, and the emergence of new collaborative dialogues within government, between governments, and across sectors (such as industry and community) are a critical dimension. The second, and quite related variable lies in the necessary leadership of people: new skill sets, and new leaders will be required to both empower knowledge workers and defend experimental action. At the same time, it is not only the skills composition of workers altering in a digital era, but rather the broader transformations of both everyday and organizational life that. In this sense, digital government must reposition itself to become an engaged and constructive partner in shaping the new governance patterns emerging today. Government must produce a new "culture" in order to harness the enormous potential of being digital: technology alone is insufficient. The paper concludes with some preliminary propositions as to how governments might address these important challenges.*

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availability of a new digital infrastructure and the Internet's impacts on a changing set of public expectations are overtaking fiscal pressures as the primary impetus for public sector managerial reform.

Nonetheless, the deployment of IT both in and across public sector organizations is driven by a variety of factors, and it may face resistance. The main danger is that the necessary transformation in public sector governance and accountability is likely to be blocked by an administrative culture that may be ill suited for a digital world. Whereas nearly everything about the connected (or digital) state requires horizontal governance, government has relied upon a vertical architecture of power and decision-making.

While this quandary is recognized to some degree, the central task facing both policy-makers and political leaders, at least those interested in leading the transition to the digital age, lies in orchestrating effective responses.

## 2) Partnerships

The new digital architecture driving e-governance creates both pressures and opportunities for new partnerships - internally and externally. Within government, IT fosters new horizontal opportunities by shifting away from traditional bureaucratic structures toward alternative delivery arrangements. The growing possibilities for consultations with both stakeholders and the citizenry are also expanded with new technologies. Moreover, on-line delivery implies integrative channels within government, linking external users to a variety of sources and systems internally.

Organizationally, these trends mean IT forces are both dispersing and centralizing – fostering a need for integrative action. Put another way, these forces create tensions between vertical governance of traditional government and the horizontal governance implied by digital government. The emergence of digital government will therefore require actions and strategies at the level of individual departments and agencies: but such efforts must be orchestrated within the parameters of government-wide leadership and coordination.

Accountability is a key element of such a balance. The manner by which accountability is perceived and exercised by government leaders will determine the degree to which it embraces more collaborative models of governance. Traditionalists invoke the underlying principle of Ministerial Accountability based on a clear and rigid view of vertical control and risk-minimization in order to serve and protect the interests of the publicly accountable political leader.

The rise of e-governance, with its pressures for a variety of initiatives introducing alternative models of decision-making and service delivery, implies a sharing of accountability. The need for collaboration, partnerships and joint ventures grows -both within government, and often between private and public organizations.

There are also important debates around the issue of whether accountability is at risk when external partners become involved in the governing and shared delivery of government programs and services. According to some, new governance arrangements threaten to undermine key institutions and practices of democratic accountability [Globerman and Vining 1996]. This camp believes that any change to the existing system of ministerial accountability will damage the integrity of the system. There is some question as to whether the *ad hoc* nature of the ever-increasing number of partnership arrangements between sectors challenges accountability mechanisms or can be absorbed in traditional models of decision making with adaptations to risk mitigating strategies.

the San Diego County government is now six months into the largest municipal outsourcing experience. While these experiences are unique in scope, they present elements common to all governments, at all levels, as IT becomes a strategic imperative for effective governance. Such tensions have led to growing calls for partnerships in place of contracts. The differences may be subtle in terms of words, but the consequences of this contrast are far reaching. Poupart and Austin compare two modes of relationships:

*Partners respond to a need in a changing world by sharing control in the context of an assertive relationship to offer a future that facilitates innovation in a world of possibilities. Contractors respond to a request in a procurement world by giving up control in the context of a collaborative relationship to provide help, assistance, pairs of hands that facilitate project management in a world of deliverables [Jelich & al. 2000, p.52].*

Our claim is that the realization of digital government remains at odds with a traditional public sector apparatus firmly rooted in hierarchical traditions. The resulting challenge of shifting from incremental procurement reform to genuine collaboration lies in the need to rebalance purchasing safeguards with partnering opportunities. Equally important are the new skill sets of public managers and leadership requirements that result.

### 3) People

The digital era rises hand in hand with the knowledge workforce. Conceptually, Rifkin envisions growing ranks of knowledge workers who will forge new communities of interest - only some of which are likely to resemble traditional employee - employer relationships of the past. He argues that "people of the twenty-first century are as likely to perceive themselves as nodes embedded in networks of shared interests as they are to perceive themselves as autonomous agents in a Darwinian world of competitive survival" [Rifkin 2000, p.12].

How will public sector organizations deal with what Rifkin sees as a new human archetype where people are more autonomous, better educated, more mobile, and less rooted by traditions of place (either geographically or organizationally). These conceptual issues intimately link the workforce challenges of digital government with those of cultural reform (in an organizational sense). Whereas Westminster systems continue to emphasize vertical accountability, government on-line is (correctly) being pursued in a horizontal fashion.

An international study by Essex and Kusy [1999] underlines the views of executives from both government and industry, for whom an increasing reliance on the external workforce is a significant trend. They report that from 1997-2002, leaders are expecting an increase from 10 per cent to 25 per cent in non-core (meaning non-traditional full-time, or external) workers. This crescendo of the external workforce may well accelerate with the technology-induced pressures for organizational innovation and flexibility. The result is a complex mix of agendas and incentives that explains the growing emphasis on interpersonal skills such as negotiation, facilitation, and consultation.

These skills are forming the basis of "new public servant" - one who is much more collaborative and comfortable with technology, and the consequences of these shifts for human resource in management in government will be profound [Moritz and Roy 2000]. Thus, government is becoming both more fluid internally and more networked externally, as distributed governance models drive the move toward a flexible and modular workforce.

This form of control can be pursued either at the operational level of government, by managers over subordinates, or politically by leaders who, by reflex, look to IT to centralize and control both power and information. Such attempts, of course, will prove increasingly futile, and they can only weaken the public sector as its credibility and performance steadily erode.

In the second scenario, some change is accepted but incremental strategies are formulated to achieve it. The potential for this scenario lies with traditionalists, whose cautionary claims may be partially legitimized by making a case that government is not private enterprise; as such, e-governance, and promises of Internet speed may not be fully appropriate for serving the public interest.

The resulting caution in IT planning and an emphasis on contracting over partnerships in outsourcing arrangements are likely to limit government's capacity, with arguments for the preservation of clear public accountability used to justify inaction. The media may also contribute to the traditionalist's cause, as the British government discovered recently when it was (somewhat unfairly) profiled in CIO Magazine (cio.com) for alleged failures in its IT initiatives. An important lesson of the digital age is the interdependence of these first two scenarios: the more defensive, cautionary or manipulative a government appears, the more hostile the media reaction is likely to be, creating a vicious circle of paranoia and defensiveness.

The third scenario is perhaps uncomfortable given it carries risks. Yet, those public managers and political leaders who have it right are those who claim that the risk of inaction is greater than moving forward boldly. The key to this scenario is a fundamental renewal of administrative culture in order to better learn how to share accountability, to better coordinate activities in more flexible and more effective way, and to better empower public servants and their partners, allowing new solutions for come forward in a dispersed and open matter.

This latter point may well be the secret to the digital transformation – that is to say, nobody can claim to have a clear road map of public sector renewal in this scenario. Acceptance of this point, publicly as well as privately, will mark members of those espousing such change.

In terms of how governments respond, our two sets of explanatory factors will be determinant. First, partnerships, and the emergence of new collaborative dialogues within government, between governments, and across sectors are a critical dimension. The second, and quite related variable lies in the necessary leadership of people – new skill sets, and new leaders will be required to both empower knowledge workers and defend experimental action. This new leadership must also be political in order to engage the public in this new journey, challenging them to be constructive and raising the collective intelligence of all stakeholders, including the citizenry.

Which scenario will define our governments in the world of e-governance? The evidence presented here would place many governments in North America (i.e. federal and provincial/state) somewhere between the first and second scenario, with some important challenges requiring further action if the third path is to emerge. The current blockages surrounding IT procurement reform are indicative of an administrative culture blocking the acceptance of a new governance regime that would find a place for partners as well as contractors.

Similarly, after years of downsizing and adjustment, the process of public service renewal, and its necessary emphasis on more collaborative and digitized skill sets remains at an early stage. Filling the void that will be created by demographics is only one half of the task; the other, more complicated task is to retool existing public servants and effectively empower them to work in a more complex, fluid and virtual environment underpinned by IT and driven by information.

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**EL GOBIERNO EN LA ERA DIGITAL  
AVANCES EN EL CASO DE ARGENTINA**

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## I. Introducción

Las TIC, y más específicamente Internet, están provocando profundos cambios en la sociedad, y el Sector Público no ha quedado al margen de dicho impacto, siendo uno de los principales el surgimiento y adopción del *e-government*. Este nuevo escenario plantea la necesidad de una redefinición del rol del Estado en la sociedad de la información y el cuestionamiento de qué actividades debe encarar el sector público y cuáles no.

La adopción de las TIC para la prestación de servicios promete la posibilidad de obtener importantes beneficios potenciales en términos de eficiencia, mejora en la calidad de los servicios prestados e incrementos en la transparencia de la gestión pública. Sin embargo, el desarrollo exitoso del *e-government* y la materialización de los cuantiosos beneficios esperados, plantea la necesidad de sortear importantes barreras que podrían limitar su avance y adopción generalizada.

En el ámbito internacional se observan importantes avances en la utilización de Internet por parte de los gobiernos y los proyectos encarados muestran diferentes grados de desarrollo. El presente trabajo analiza la situación actual y las perspectivas del gobierno electrónico en Argentina a través de: i) una revisión de los principales proyectos relacionados, ii) un relevamiento del estado actual del portal principal de acceso del gobierno nacional y iii) del análisis de los principales determinantes de su desarrollo, estado actual de los mismos y su comparación con los observados para Brasil y Chile.

El presente trabajo se estructura en seis capítulos. El Capítulo II realiza una revisión teórica del impacto de las TIC en el Sector Público y del rol del gobierno en la nueva era digital. El Capítulo III analiza el surgimiento del *e-government*, sus principales beneficios y costos esperados y las barreras más importantes a su desarrollo. El Capítulo IV presenta el nivel de desarrollo actual del gobierno electrónico a través de un repaso de los avances realizados a nivel internacional (Sección A) y en el caso de Argentina (Sección B). El Capítulo V repasa los principales determinantes del desarrollo del *e-government* y la situación actual de los mismos en la Argentina -comparándolos con los de Brasil y Chile (Sección A)-, para luego describir las perspectivas de evolución (Sección B). Por último, se presentan las conclusiones en el Capítulo VI.

El gran dinamismo del tema tratado y el hecho que la mayoría de los proyectos están en su etapa de desarrollo ha dificultado evaluar objetivamente la situación actual y el grado de avances alcanzado, por lo que las consideraciones contenidas en el presente trabajo se refieren a un momento determinado del tiempo (Diciembre de 2000) y están sujetas a constantes y profundos cambios.

## II. El Gobierno y la revolución de las TIC.

El vertiginoso crecimiento de las TIC (Tecnologías de la Información y Comunicación) en el mundo está provocando profundos cambios en el sistema económico internacional, conduciendo al desarrollo de lo que ha dado en llamarse la *sociedad de la información, sociedad digital o sociedad del conocimiento*. En el campo de la economía, sus efectos se mencionan con el nombre genérico de *economía digital*.

El avance de las nuevas tecnologías genera cambios con impactos comparables al de las grandes innovaciones tecnológicas de la historia (The Economist, 2000 [b]).

El sector gobierno no se encuentra al margen y experimenta alteraciones en su funcionamiento, tanto en la forma en que presta sus servicios, cuanto a un replanteo de su rol tradicional en la sociedad. En versión vanguardista hay quien sostiene que "La Internet cambiará la naturaleza del gobierno y la estructura del estado" (Fountaine, 2000).

La actuación asignada al gobierno en la economía ha evolucionado a través del tiempo y el presente escenario que incorpora a las TIC le plantea nuevos desafíos e interrogantes, inexistentes hasta el presente.

- *government to government* (G2G), se refiere a la interacción entre los diferentes niveles y entre los diferentes organismos del gobierno.

El G2C propone cambios que en términos de expectativas pueden calificarse como radicales en la forma tradicional de relación entre el gobierno y los ciudadanos.

En este nivel del *e-government* son *objetivos centrales* lograr: i) una mejora en la calidad de los servicios prestados, ii) aumentos en la eficacia y eficiencia de la gestión gubernamental, y iii) un aumento de la participación ciudadana en el funcionamiento del sistema democrático.

Una derivación importante de la utilización de las TIC en la interacción del gobierno con los ciudadanos es el surgimiento de la llamada Democracia Electrónica (*e-democracy*). Este concepto se refiere a teorías que consideran a las computadoras y a las redes informáticas como una herramienta fundamental en el funcionamiento del sistema democrático y en la mayoría de las funciones del mismo, a saber: provisión de información, comunicación entre los distintos actores, proceso de toma de decisiones (deliberación y voto), entre otros.

Los objetivos fundamentales de la Democracia Electrónica son la *reducción del costo y el aumento del beneficio de participación de los ciudadanos en el proceso democrático*, y por esta vía un incremento de dicha participación.

Como principal campo de acción para los desarrollos de G2B se revela el proceso de compras y contrataciones del estado. Son diversas las ventajas que puede obtener el gobierno al realizar sus compras a través de Internet, dentro de las cuales se destacan dos principales:

- Logra aumentos de eficiencia mediante la concentración de las compras de las diferentes agencias en un solo sitio, reduciendo los tiempos y costos de transacción, disminuyendo los inventarios (orientación just-in-time) y aumentando el poder de negociación de los organismos - reduciendo los precios pagados-.

Esta forma de contratación aumenta la competencia entre los proveedores e incrementa la eficiencia con que opera el mercado, al disponerse de mayor información, más oportuna y de mejor calidad.

- Permite incrementar la transparencia del sistema de compras y contrataciones a través del flujo de información actualizado y detallado de cada una de las etapas de este proceso. Este escenario reduce la posibilidad de malas prácticas e incentiva la accountability (responsabilidad del agente público de rendir cuentas de su accionar).

El G2G posibilita la conformación de un aspecto básico que es el disparador de, quizás, formidables beneficios potenciales, cual es la centralización y unificación de la información en bases de datos comunes de acceso conjunto que eviten duplicaciones y que aumenten la eficiencia en el uso de dicha información. Desde el punto de vista del federalismo fiscal, estos sistemas de información podrían ayudar a mejorar la capacidad teórica de recaudación de las jurisdicciones menos favorecidas y a reducir los niveles de evasión y elusión fiscal a través de convenios interjurisdiccionales.

Por otro lado, la adopción del G2G dependerá fuertemente del éxito del G2C, ya que, según el nivel de demanda de los ciudadanos, los portales deberán ser más funcionales y consiguientemente requerirán una mayor integración y cooperación entre los organismos.

Actualmente, a nivel federal en los Estados Unidos, el 74,6% de los servicios prestados a través de Internet se orientan a los ciudadanos (G2C), el 19,2% a compras gubernamentales (G2B) y el 6,2% a operaciones intergubernamentales (G2G).

## C. Los beneficios y costos esperados

### 1. Los beneficios

El surgimiento e implementación del *e-government* son recientes y aún se encuentran en sus primeras etapas de desarrollo en la mayoría de los países del mundo, aún en los más desarrollados, circunstancia que explica la escasa elaboración de análisis cuantitativos del tipo costo/beneficio.

#### 1.1. Experiencias relevantes

La observación internacional muestra numerosas experiencias aisladas acerca de los ahorros en ciertos servicios específicos derivados de su implementación on-line, las cuales, aunque parciales e incompletas, sirven como indicadores de los beneficios potenciales.

- El Gobierno de Chile a partir de Octubre de 1999 puso en funcionamiento el Sistema Electrónico de Compras y Contrataciones del sector público<sup>4</sup>. *Los beneficios derivados del sistema se estiman en aproximadamente US\$ 200 millones anuales*, provenientes principalmente de la disminución de precios y del uso de la tarjeta de compras para la transferencia electrónica de fondos (Comisión Presidencial de Nuevas Tecnologías de Información y Comunicación, 1999).
- De acuerdo a estimaciones en base a información proporcionada por la Secretaría de Comercio Electrónico de EE.UU., *el pago de facturas on-line es entre un 67,2% y un 95,6% más eficiente que el método tradicional* (impreso), ya que permite importantes ahorros en el costo de procesamiento. El Cuadro N° 1 presenta los costos de procesamiento de facturas por ambos métodos.

Cuadro N° 1  
COSTO DE PROCESAMIENTO DE UNA FACTURA EN EE.UU.  
MÉTODO TRADICIONAL VS MÉTODO ON-LINE - EN US\$

Costo	En u\$s				Variación % Promedios
	Tradicional		On-line		
	Valores Extremos	Promedio	Valores Extremos	Promedio	
Costo del emisor	1,65 - 2,70	2,18	0,60 - 1,00	0,80	-63,3%
Costo del cliente	0,42	0,42	0	0	-100,00%
Costo del banco	0,15 - 0,20	0,175	0,05 - 0,10	0,075	-55,56%

Fuente: Elaboración propia en base a Fountain, 2000.

#### 1.2. Un análisis cuantitativo global

Una estimación del ahorro de costos resultante de la implementación del *e-government* en los niveles de gobierno federal, estatal y local en EE.UU. (Fountain, 2000<sup>5</sup>), muestra los cuantiosos beneficios que se espera de la utilización de esta herramienta.

A partir de una proyección de la penetración del gobierno electrónico en los distintos organismos, se estimaron los ahorros que traería la adopción del G2B y del G2C en el período 1998-2024. Utilizando una tasa de descuento del 5% para el cálculo del Valor Presente y del Valor Anualizado Equivalente de dichos ahorros, se obtuvieron los resultados que se presentan en el siguiente cuadro:

<sup>4</sup> <http://www.compraschile.cl>

<sup>5</sup> Para un análisis detallado de la metodología empleada y su enfoque matemático, véase Appendix I y Appendix II de J. Fountain (2000).

gobierno electrónico alrededor del mundo. La integración horizontal (entre las distintas reparticiones de un mismo nivel de gobierno) y vertical (entre los distintos niveles de gobierno) facilita el acceso y simplifica sustancialmente la realización de trámites, reduciendo los tiempos/costos, tanto desde el punto de vista del organismo gubernamental involucrado, cuanto del ciudadano.

- ii. *Mayor eficacia y eficiencia en la gestión pública.* Un incentivo importante que alienta la adopción del *e-government* es la posibilidad de reducir costos. Dichos ahorros pueden materializarse a través de procesos más eficientes -tanto en el ámbito de G2C, G2B y G2G- y consecuentemente lograr incrementos en la productividad.

Esta nueva forma de interacción entre los ciudadanos y sus gobernantes le brinda mayor dinamismo al proceso de participación ciudadana, reduciendo el costo tanto a) del ejercicio de la ciudadanía<sup>6</sup>, cuanto b) del cumplimiento de las obligaciones con el Estado.

- iii. *Transparencia Fiscal.* La adopción del *e-government* brindará una mayor transparencia a la gestión pública, permitiendo el ejercicio adecuado de la accountability. La divulgación de la información vía Internet facilita la participación de los ciudadanos en el control de la función pública y en cierta forma a colaborar con los órganos encargados de dicha función. Esta aplicación está en línea con las recomendaciones que en los 90' han desarrollado los organismos internacionales<sup>7</sup>.

## 2. Costos de implementación.

Los costos asociados a la implementación del *e-government* varían sustancialmente de acuerdo a las dimensiones y complejidad de los proyectos encarados, destacándose la inversión necesaria para generar e implementar una infraestructura con estándares tecnológicos adecuados. Un paso previo importante es la adecuación de los sistemas de información y comunicación de la Administración Pública, a través de la implementación de redes internas.

En el período de transición, hasta la consolidación de las nuevas prácticas, puede que se observen aumentos de costos de funcionamiento en el corto plazo, por la coexistencia de nuevos y viejos métodos, y su falta de coordinación y aprovechamiento integral, hasta que se obtengan los aumentos en la eficiencia, los cuáles se materializan con cierto retardo. Entre los aumentos de costos en el corto plazo puede mencionarse el mantenimiento de infraestructura y personal para la prestación de servicios por ambos métodos, y la posibilidad de un aumento de las preguntas y pedidos a los empleados, tanto en las oficinas públicas como por vía telefónica.

En muchos casos los gobiernos utilizan un modelo de "*riesgo compartido*" con las empresas de alta tecnología, las cuales se encargan tanto de construir como de mantener los sitios gubernamentales. Este modelo se aplica con particular eficacia en transacciones con volúmenes elevados de operaciones entre ciudadanos y el gobierno (G2C), o en transacciones entre el gobierno y proveedores (G2B). Las compañías desarrollan los portales con costos muy bajos o nulos para los gobiernos, ya que en la mayoría de los casos el pago a la empresa proviene de porcentajes por transacción y/o reducciones logradas en los costos.

La falta de una estrategia para un desarrollo sistemático y organizado del gobierno electrónico puede conducir a resultados indeseables desde el punto de vista social, con importantes aumentos de costos (debido a la duplicación y superposición de información), bajo nivel de participación ciudadana y deficiencias en la calidad y posibilidad de acceso a la información.

<sup>6</sup> Se entiende como ejercicio de la ciudadanía al tiempo insumido en actividades de adquisición de información sobre acciones de naturaleza pública, en la adopción de una posición crítica en relación con las mismas y en la actitud activa de participación a través de la cual se puede interferir en el resultado final de la acción pública (Ferreira y Araujo, 2000)

<sup>7</sup> A manera de ejemplo, véase FMI. Manual de Transparencia Fiscal y Código de Buenas Prácticas para la Transparencia Fiscal.

Cabe destacar que la mayoría de los avances tecnológicos relacionados con la seguridad de la información -como protocolos de seguridad, infraestructura de firma digital, entre otros- ya están disponibles en el sector privado y necesitan pocas adaptaciones para su uso por parte del sector público.

### 3. Marco legal y regulatorio.

El marco legal y regulatorio puede constituirse en una importante barrera al avance del gobierno electrónico, especialmente en las etapas de mayor complejidad.

Es indispensable la aprobación y promulgación de las leyes necesarias que brinden un marco de legalidad a las actividades y procedimientos realizadas on-line, otorgándole el mismo carácter que las realizadas a través de los métodos tradicionales. Entre las principales adecuaciones necesarias se destacan la infraestructura de firma digital<sup>10</sup>, la legalización de los documentos electrónicos y la posibilidad de realizar licitaciones a través de Internet, entre otros.

De cualquier manera, la utilidad esperada del sistema es tan elevada que presenta un ambiente propicio para observar casos en que “la necesidad (utilidad) se anticipa a la ley”.

### 4. Infraestructura de comunicaciones.

La existencia de una infraestructura de comunicaciones con estándares tecnológicos adecuados es un requisito indispensable para el éxito de los proyectos de gobierno electrónico.

Dicha infraestructura hace referencia tanto al ámbito nacional -amplias redes de telecomunicaciones accesibles a la mayor parte de la población- cuanto al nivel gobierno -ya que la existencia de redes gubernamentales internas que funcionen eficientemente en la transmisión de información es otro factor fundamental para permitir su desarrollo-.

El avance tecnológico no es una barrera importante para el desarrollo del *e-government* actualmente, ya que la mayoría de las innovaciones necesarias para su implementación ya están siendo utilizadas exitosamente en el *e-commerce*.

### 5. Incentivos de los agentes.

La implementación del *e-government* requiere de un cambio de cultura en los agentes públicos en cuanto a la forma de realizar sus actividades y en las capacidades necesarias para ocupar los cargos. Las reestructuraciones necesarias en la burocracia gubernamental requiere de un alto grado de predisposición y un gran poder de adaptación por parte de los agentes públicos, que generalmente está ausente en la mayoría de ellos.

El proceso de cambio puede implicar no sólo cambios en la forma de realizar las tareas, sino que además puede conducir a reubicaciones de personal entre las distintas áreas y hasta pérdida de puestos de trabajo, con la consiguiente oposición por parte de los grupos involucrados.

El gran desafío que deben resolver los gobiernos es cómo estimular a los agentes a adoptar los cambios radicales que implica el *e-government* ante la ausencia de incentivos y presiones de mercado. En este sentido, la solución al rechazo a las nuevas prácticas debe provenir de la *generación de los incentivos* adecuados para estimular a los agentes.

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<sup>9</sup> i) La integridad hace referencia a la necesidad de garantizar que la información es recibida como fue enviada, sin duplicaciones, agregados, modificaciones, reordenamientos ni repeticiones. ii) La confidencialidad se refiere a la protección de informaciones contra ataques y análisis de mensajes cuando se encuentran en tránsito en las redes o contra su divulgación indebida cuando se encuentra almacenada. iii) El principio de disponibilidad se refiere a los mecanismos necesarios para prevenir la pérdida o reducción de la disponibilidad a la información. iv) La función de la autenticación consiste en garantizar al receptor que la información es realmente originaria de la fuente informada.

<sup>10</sup> Firma Digital es el mecanismo de identificación de un usuario de un Sistema Informático. La sofisticación para la identificación y la seguridad de una firma digital, dependerá de la sensibilidad y confidencialidad de la información manejada por el Sistema. (Crespo, Bernard y Bertona; 1999)

La estrategia predominante en los sitios gubernamentales prestadores de servicios on-line en los países desarrollados, muestra que los gobiernos poseen un *único portal de acceso a todos sus servicios e informaciones*.

En cuanto a la estructura interna de los portales gubernamentales, existen dos formas básicas de ordenar la información y los servicios prestados: i) portales de estructura horizontal y ii) portales de estructura vertical.

Los sitios de tipo horizontal clasifican todos los servicios e informaciones del gobierno de acuerdo a su tipo o tema relacionado, facilitando la búsqueda y acceso a los clientes-ciudadanos. Los portales de tipo vertical presentan los servicios y la información ordenada de acuerdo al organismo que los provee, es decir que no se accede directamente a ellos, sino a través de la página correspondiente al organismo pertinente. El primer tipo de estructura tiene la ventaja de que los usuarios no deben conocer previamente el organismo que presta el servicio en el que están interesados.

Un estudio reciente de la Brown University (Septiembre de 2000) analiza la situación y condiciones actuales del *e-government* en Estados Unidos a través de una investigación en los gobiernos estatales y en el federal. Los hallazgos más sobresalientes de esta investigación se resumen en los siguientes puntos<sup>12</sup>:

- 22% de los sitios ofrece por lo menos un servicio on-line<sup>13</sup>.
- Solamente 5% de los sitios gubernamentales contenían algún tipo de política de seguridad y 7% políticas de privacidad de la información.
- El 91% de los sitios respondió a un pedido de información realizado, de los cuales el 75% lo hizo en menos de un día y sólo el 1% demoró más de seis días en responder.
- 15% de los sitios ofrece algún mecanismo de acceso para discapacitados.
- 4% de los sitios ofrece traducción a un idioma extranjero.
- En general los sitios del Gobierno Federal tuvieron un mejor desempeño que los pertenecientes a los Estados. Lo mismo ocurre entre los sitios de los poderes Ejecutivo y Legislativo con respecto al Poder Judicial.
- La variable explicativa más relevante de la posición ocupada en el ranking es el tamaño de la población. Los estados más pequeños en términos poblacionales *disponen de menores recursos y no tienen acceso a las economías de escala que gozan los estados grandes en las iniciativas tecnológicas*.

En términos generales, el estudio concluye que los gobiernos en Estados Unidos -tanto Federal como Estaduales- i) no han aprovechado aún todo el potencial de desarrollo del *e-government*, ii) no utilizan plenamente las tecnologías disponibles y iii) persisten problemas en términos de acceso y alcance democrático<sup>14</sup>.

## B. El caso argentino

El gobierno electrónico en Argentina se encuentra en las primeras etapas de desarrollo, y por lo tanto están surgiendo las primeras iniciativas relacionadas al tema. A continuación se realiza un análisis del estado actual del *e-government* en la Argentina para los diferentes niveles de gobierno (nacional, provincial y municipal). Para el estudio se tomó como base las experiencias del Gobierno Nacional y de la

<sup>12</sup> La investigación se basó en el estudio de 1.813 sitios gubernamentales en Internet (1.716 de gobiernos estatales, 36 de los poderes Ejecutivo y Legislativo del nivel Federal y 61 del Poder Judicial Federal).

<sup>13</sup> A los fines de la investigación se considera servicio on-line a aquellos que son concretados íntegramente vía Internet.

<sup>14</sup> Ya que ciertas minorías gozan de muy bajas -o nulas- posibilidades de acceso debido a discapacidades u otros factores como el idioma.

## Ventajas y desventajas del portal argentino.

## ARGENTINA

Ventajas	Desventajas
<ul style="list-style-type: none"> <li>▪ Posibilidad de acceso a todas las páginas de los diferentes niveles de gobierno (nacional, provincial y municipal) y a los diferentes poderes (ejecutivo, legislativo y judicial).</li> <li>▪ Contiene un solo sitio en donde realizar todas las quejas para cualquier organismo o dependencia.</li> <li>▪ Ofrece la posibilidad de inscripción para recibir información periódica vía e-mail.</li> <li>▪ Se pueden bajar formularios y programas con distintas utilidades.</li> <li>▪ Posee información interactiva<sup>15</sup>.</li> <li>▪ Posee mail para efectuar comentarios.</li> <li>▪ Tiene links externos, mapa del sitio, buscador, acceso a otros sitios de interés del gobierno y servicio de noticias.</li> <li>▪ Tiene publicaciones y proyectos referidos a <i>e-government</i>.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Portal de tipo Vertical.</li> <li>▪ No contiene la política de privacidad y seguridad del sitio.</li> <li>▪ El portal no presenta todos los servicios disponibles en los diferentes sitios del gobierno y los mismos están clasificados por agencias prestadoras y no por tipo de servicio.</li> <li>▪ No tiene lista con las preguntas más frecuentemente realizadas (FAQ) por los visitantes ni guía de ayuda.</li> </ul>

El sitio principal se complementa con portales específicos referidos a diferentes temas de particular interés entre los que se destacan<sup>16</sup>:

*Transparencia Fiscal: www.cristal.gov.ar*

El portal Cristal es un sitio de presentación de información gubernamental y tiene como principal objetivo aumentar la transparencia de la gestión pública y estimular la accountability de los funcionarios. Este sitio pretende ser el principal medio de difusión de la gestión del Estado Nacional Argentino y apunta a acercar al ciudadano información del sector público.

El "Compromiso Federal por el Crecimiento y la Disciplina Fiscal" firmado entre los Gobiernos Provinciales y el Gobierno Federal en Noviembre de 2000 establece que: "*Los gobiernos de la Nación, de las provincias y de la Ciudad Autónoma de Buenos Aires acuerdan establecer procedimientos para posibilitar una amplia difusión de sus cuentas fiscales, incluyendo presupuesto corriente, su ejecución, deuda y la proyección de sus servicios mediante sistemas informáticos*". Dicho compromiso detalla cierta información que tendrá carácter público y será de libre acceso para cualquier institución o persona interesada en conocerla. El sitio Cristal se presenta como un instrumento importante para el cumplimiento de dicha obligación.

Los contenidos del sitio se estructuran alrededor de tres ejes temáticos principales: i) cuentas públicas, ii) gestión pública y iii) control de los representantes, de manera de poder cumplir con el

<sup>15</sup> Se considera interactiva a aquella información que para ser visualizada requiere del llenado de ciertos datos por parte del usuario.

<sup>16</sup> La lista de sitios presentada dista mucho de ser exhaustiva, y sólo incluye a aquellos considerados de mayor interés para el presente trabajo.



jurisdicciones. En este sentido, se prevé la transferencia e implementación del Sistema OSIRIS<sup>19</sup> a las diferentes Direcciones de Renta provinciales.

*Administración Nacional de Seguridad Social: [www.anses.gov.ar](http://www.anses.gov.ar)*

El sitio Ansesnet es un portal de información y servicios de la Administración Nacional de la Seguridad Social, que brinda información y asesoramiento sobre los trámites que se llevan a cabo en este organismo. El portal brinda ciertos servicios *on-line*, los cuales se dividen según sus prestatarios en: i) Servicios para Personas: Constancia del CUIL (Código Único de Identificación Laboral), Registro único de Beneficiarios, Calendarios de Pagos, Formularios y ii) Servicios para Empresas: Posibilidad de consultar las bases de datos del ANSES y un servicio de Conexión Directa, que permiten la transferencia de archivos entre las PC de los usuarios y los computadores centrales de ANSES.

### 1.3. Poder Legislativo.

Las importantes oportunidades que presenta el *e-government* para mejorar la relación entre los ciudadanos y sus legisladores no han sido explotadas aún por el Poder Legislativo nacional.

El Congreso de la Nación ha comenzado a prestar ciertos servicios básicos a través de sus páginas web<sup>20</sup>, pero las mismas son en su mayor parte de presentación institucional.

La página del Senado muestra un mayor grado de desarrollo que su par de Diputados. En ella se puede acceder a información acerca de la composición de la Cámara y actividad de los legisladores, y entre los servicios que presta puede mencionarse la búsqueda de proyectos de Ley y la posibilidad de acceder a las versiones taquigráficas completas de las sesiones<sup>21</sup>. Además, la página cuenta con una función general de búsqueda, links con otros organismos públicos y con páginas externas, el listado de direcciones de correo electrónico de los senadores y una sección donde se publican las licitaciones para contratos de provisión de bienes y servicios a la Cámara.

En cuanto a la página de Diputados, esta presenta información de la Cámara y su composición, brinda acceso a las versiones taquigráficas, posee el listado de los diputados y su correo electrónico, links con sitios de interés y un servicio de intranet para uso exclusivo de sus miembros.

Si bien ambas Cámaras poseen el listado de los legisladores con su dirección de correo electrónico - lo cuál representa un avance-, se debe lograr que esta herramienta sea utilizada como un instrumento para mejorar la comunicación con los ciudadanos, lo cuál no ocurre en la actualidad.

En cuanto a la legislación relacionada a la adopción y difusión de las nuevas tecnologías, se pueden citar: i) la Ley de Habeas Data y ii) los proyectos de Ley de Firma Digital.

- i. En octubre de 2000 se aprobó la ley que reglamenta la recopilación y comercialización de los datos personales por empresas privadas, organismos públicos y particulares. Ésta es la herramienta legal para que la gente pueda controlar quiénes tienen sus datos personales y para qué los usan. La reglamentación del *Habeas Data* establece un fuerte control estatal sobre empresas y organismos públicos, para evitar que se almacene información confidencial de personas sin que éstas se enteren y den su consentimiento.
- ii. Actualmente existen varios proyectos de Ley y un proyecto de modificación del Código Civil con el objetivo de *ampliar la admisión de la firma* en los casos que intervienen medios electrónicos como instrumento, siempre y cuando se utilice un método para identificarla y ese método asegure razonablemente la autoría e inalterabilidad del instrumento. Estos proyectos se basaron en los antecedentes de la Ley de UTAH (EE.UU.), la Ley alemana de Firma Digital y las recomendaciones de la Comunidad Europea al respecto (Velázquez, 2000).

<sup>19</sup> El OSIRIS es un sistema informático para la presentación de declaraciones juradas y pagos, impositivos y previsionales, actualmente en uso por la AFIP/DGI.

<sup>20</sup> (<http://www.senado.gov.ar> y <http://www.hcdn.gov.ar>)

<sup>21</sup> Se puede acceder a las versiones taquigráficas posteriores a Febrero de 1998.

Uno de los ejes principales del proyecto es la implementación del *Sistema Único de Atención al Ciudadano* (SUAC), el cual empleará al teléfono y a Internet, como los principales medios para la interacción entre el gobierno y los ciudadanos. La utilización de los Centros de Atención Telefónica -Call Centers- se plantea como la alternativa de uso masivo, debido a la baja penetración de Internet que se observa en la Provincia de Córdoba<sup>25</sup>. Uno de los requisitos previos a la implementación de las reformas previstas es la creación de una base de datos única para todos los sistemas.

Dentro de los avances realizados referidos a *e-government* cabe destacar:

- La generalización del uso del correo electrónico para la comunicación interna entre los agentes.
- La creación de una Red Provincial de Búsqueda de Empleo (*Córdoba Empleo*), en la página del Gobierno Provincial<sup>26</sup> que brinda diversos servicios tanto a trabajadores cuanto a empresas interesadas en contratar personal, tales como búsquedas personalizadas, agenda de cursos de capacitación, entre otros.
- La implementación del Seguimiento Electrónico de expedientes.

El Gobierno provincial está por implementar un sistema de gestión de compras a través de Internet que consta de cuatro ejes fundamentales, a saber: i) *Catálogo*, que comprende la calificación y clasificación cualitativa de los productos; ii) *Proveedores*, que contempla la calificación de los proveedores en términos de calidad de cumplimiento de las condiciones pactadas; iii) *Cotización*, se refiere a la compulsa de precios entre los distintos proveedores y iv) *Founding*, que hace referencia a la posibilidad de disponer de los fondos de financiamiento necesarios.

Un punto considerado importante en la relación entre el Gobierno Provincial y los municipios es la firma de convenios para la unificación de criterios y para la transferencia de tecnología, de modo de impulsar el proceso de informatización y modernización en los diferentes niveles de gobierno.

## 2.2. Poder Legislativo.

La Legislatura Provincial se encuentra actualmente en la etapa de adecuación de su estructura informática, habiendo desarrollado un nuevo sistema informático<sup>27</sup>, el cual se encuentra en las etapas previas a la implementación y permitirá el acceso a una completa base de datos que posibilitará conocer en tiempo real las características y situación de cada uno de los proyectos presentados.

En cuanto a los sitios de ambas cámaras<sup>28</sup>, estos se centran en brindar información de tipo institucional, presentando la lista legisladores que las componen con información personal de los mismos y sus direcciones de correo electrónico.

En términos generales el Poder Legislativo provincial muestra un escaso grado de desarrollo en la utilización de las herramientas del *e-government* para mejorar la interacción de los legisladores con los ciudadanos.

## 2.3. Poder Judicial.

El Superior Tribunal de Justicia de la Provincia de Córdoba está llevando adelante el proyecto de *Optimización de la Gestión Administrativa y Jurisdiccional del Poder Judicial de la Provincia de Córdoba*<sup>29</sup>, el cuál tiene como objetivo la incorporación de tecnología que permita dotar de mayor eficiencia a la gestión judicial. Dicho proyecto contempla la utilización de diversas herramientas, entre ellas Internet, para la prestación de servicios y agilización de los procedimientos.

<sup>25</sup> De acuerdo a datos proporcionados por la Subsecretaría de la Función Pública la penetración de Internet es del 4% de la población para el Gran Córdoba y de sólo 0,8% para el interior provincial.

<sup>26</sup> <http://www.cba.gov.ar>

<sup>27</sup> El nuevo sistema fue desarrollado con financiamiento del Banco Mundial.

<sup>28</sup> <http://senadorescba.gov.ar> y <http://www.diputadoscba.gov.ar>

<sup>29</sup> El proyecto comenzó a implementarse en 1997 y es financiado por el Banco Mundial.

Dentro de los principales objetivos del Municipio Digital se encuentra la implementación de una "Tarjeta Digital" para la identificación operativa del ciudadano y la realización de todo tipo de trámites administrativos.

## V. Desarrollo potencial y perspectivas.

### A. Principales determinantes de su desarrollo.

Son numerosos los factores que influyen directamente en las posibilidades de desarrollo y éxito de las políticas tendientes a difundir el uso de Internet como herramienta para la prestación de servicios y diseminación de información por parte del sector público. Muchos de estos determinantes son similares a los que influyen en la adopción de computadoras y de Internet. La materialización de los cuantiosos beneficios potenciales que promete el gobierno electrónico depende del impacto conjunto de los mismos.

Los principales determinantes del grado de generalización y éxito de estas políticas son: i) costo de acceso a Internet, ii) Infraestructura de comunicaciones del país, iii) Grado de penetración de Internet y de las TIC y iv) Las características sociodemográficas de la población.

A continuación se presenta un análisis detallado de cada uno de estos factores, de manera de conocer la situación actual y extraer conclusiones acerca de la importancia de los mismos y las posibilidades de desarrollo potencial del gobierno electrónico en Argentina. En la mayoría de los puntos, para formar una visión adecuada de la situación actual en el caso de Argentina, se realizan comparaciones con otros países latinoamericanos, específicamente Brasil y Chile.

#### 1. Costo de acceso.

El costo de acceso a Internet es un factor de gran importancia en lo que se refiere a la posibilidad de conectarse a la red, y por consiguiente de acceder a los beneficios del *e-government*. Este costo de acceso incluye no sólo el cargo pagado por el usuario al proveedor de Internet por la conexión, sino además todo el equipamiento necesario para acceder a la misma.

El *Costo Total* de acceso puede descomponerse en tres elementos principales:

- *Costo Telefónico*: representa el costo de mantener una línea telefónica y el valor de los minutos de llamada.
- *Costo de acceso*: representa el cargo por los servicios de conexión del Proveedor de Servicios de Internet (ISP).
- *Costo de hardware y software*: representa la amortización del hardware (PC, modem, etc.) y del software necesarios para conectarse.

A pesar de la reducción de las tarifas telefónicas evidenciadas en la mayoría de los países de América Latina como consecuencia de las privatizaciones, desregulaciones y crecimiento del sector de las telecomunicaciones, el *costo telefónico* continúa siendo una barrera importante al acceso a Internet en la mayoría de ellos.

La generalización de las líneas de acceso exclusivo a Internet (líneas 0610 para el caso de Argentina) produjo una caída sustancial de los costos y es uno de los factores que impulsó un incremento en la cantidad de usuarios.

El *costo de acceso* también ha evidenciado un rápido descenso en los últimos años, debido a la mayor competencia entre proveedores; y han surgido firmas que ofrecen el acceso gratuito. Sin embargo, aún existen ciertos diferenciales de costos entre los proveedores de Internet latinoamericanos y los de los países desarrollados, los cuáles no harían posible, en el corto plazo, una convergencia de los precios de acceso. Esto determina que el acceso a Internet en países latinoamericanos continuaría siendo relativamente oneroso en comparación con los países desarrollados.

Cuadro N° 6

Cantidad de líneas telefónicas y teléfonos celulares cada 100 habitantes.  
1999 y proyecciones 2003.

País	1999		2003		Tasa de variación (1999-2003) -%-	
	Teléfonos Fijos	Teléfonos Celulares	Teléfonos Fijos	Teléfonos Celulares	Teléfonos Fijos	Teléfonos Celulares
Argentina	20	7.0	23.2	8.9	16	27
Brasil	14.3	4.6	23	8.7	61	89
Chile	20.4	8.9	26.1	19.1	28	114
Promedio América Latina	12	S/d	17	S/d	42	S/d

Fuente: Elaboración propia en base a Morgan Stanley Dean Witter (1999) y CEPAL (1999).

Actualmente Argentina y Chile muestran niveles similares de teledensidad (aproximadamente veinte líneas telefónicas cada cien habitantes), mientras que Brasil muestra un nivel considerablemente menor, lo cual lo posicionaría en una situación de desventaja relativa. De todos modos, las diferencias observadas en la actualidad tenderían a desaparecer en poco tiempo. De acuerdo a las proyecciones de la Consultora Morgan Stanley Dean Witter, Brasil muestra una tasa de crecimiento esperada de la teledensidad entre 1999 y 2003 (61%) muy superior a las correspondientes a Argentina y Chile (16% y 28% respectivamente). Estos tres países se encuentran por encima de la media latinoamericana de teledensidad, tanto en la actualidad como en las proyecciones, aunque esta brecha tiende a atenuarse.

Si bien los elevados costos de acceso a la tecnología actual no permiten un uso masivo de Internet a través de teléfonos celulares, es de esperar que esta modalidad se generalice en los próximos años. El elevado crecimiento esperado en la cantidad de teléfonos móviles (Véase Cuadro N° 6) puede ayudar a incrementar la penetración de Internet en América Latina, aún cuando su uso se limite sólo a algunas aplicaciones (uso de e-mail, lectura de información, entre otros)

Cabe destacar que no sólo es importante el nivel de teledensidad del país, sino además la distribución regional de las líneas telefónicas. En el caso de Argentina, si bien muestra un nivel relativamente alto de teledensidad para América Latina, presenta una distribución regional muy dispar, concentrándose las líneas telefónicas en aquellas regiones de mayor desarrollo relativo.

El Gráfico N° 1 presenta la teledensidad por regiones<sup>36</sup> para la República Argentina, el cual muestra una considerable disparidad entre las mismas –la cantidad de líneas telefónicas cada 100 habitantes en Buenos Aires y la Capital Federal (26,5) es más de tres veces superior a la correspondiente a la Región Norte (8,2).

<sup>36</sup> Las regiones argentinas se componen de la siguiente manera: *Región Centro* –Córdoba, Entre Ríos y Santa Fe-, *Región Cuyo* –Mendoza, San Juan y San Luis-, *Región Norte* –Catamarca, Corrientes, Chaco, Formosa, Jujuy, La Rioja, Misiones, Salta, Santiago del Estero y Tucumán- y *Región Sur* –Chubut, La Pampa, Neuquén, Río Negro, Santa Cruz y Tierra del Fuego e Islas del Atlántico Sur-.

Existe una gran disparidad entre la cantidad de PC en uso en Argentina, y en general en todos los países latinoamericanos, con respecto a los avanzados, lo cuál da una idea de las diferencias en el grado de penetración del uso de computadoras. *La cantidad de PC por habitante en Argentina es aproximadamente 11 veces menor que en Estados Unidos o Singapur.*

Los niveles de penetración de PC tanto para Argentina como para Chile son similares (4,15 y 4,82 PC cada 100 habitantes respectivamente), siendo sensiblemente menor para el caso brasilero (3,01 PC cada 100 habitantes).

El grado de *penetración de Internet* puede medirse a través de la cantidad de usuarios de Internet y de la proporción que estos representan dentro de la población total. Los estudios realizados difieren sustancialmente en la estimación, no sólo por lo dinámico que es este mercado, sino además por la metodología empleada para estimarlos.

Las estimaciones moderadas de la cantidad de usuarios arrojan los valores mostrados en el Cuadro N° 12. Cabe destacar que más relevante que el número absoluto de usuarios, lo es el porcentaje que estos representan dentro de la población total.

Cuadro N° 8  
Usuarios de Internet como porcentaje de la Población (1999).

País	Usuarios	% de la Población
Argentina	900.000	2.5
Brasil	4.000.000	2.4
Chile	625.000	4.2
EEUU	110.000.000	40.7

Fuente: UIT (Unión Internacional de Telecomunicaciones)  
Indicadores de Telecomunicaciones De las Américas2000.

El grado de penetración de Internet de Argentina y Brasil es de aproximadamente 2,5% de la población, mientras que Chile presenta un porcentaje sensiblemente mayor (4,2%), lo cuál le brindaría un mayor potencial de desarrollo del *e-government*.

Las proyecciones para América Latina en el período 1999-2003 muestran un sostenido crecimiento del número de usuarios adultos activos, pasando de 4,1 millones en 1999 a 19,28 millones en el año 2003, lo cuál representa una tasa variación de 370% en dicho período. Argentina es el país -de los tres presentados- con mayor tasa de crecimiento esperada (743%), seguida de Brasil (365%) y Chile (100%).

Al analizar el nivel de generalización del uso de Internet en la sociedad, además de los factores antes mencionados, debe destacarse el efecto que provocan las *externalidades de red* sobre el grado de penetración de Internet. La probabilidad de adopción de computadoras tiene una relación directa con el nivel de conectividad (porcentaje de la población que ya la adoptó): mientras mayor el nivel de conectividad (*ceteris paribus*), mayor es la probabilidad de adoptar las computadoras. Sin embargo, a pesar de la importancia empírica del efecto de las externalidades de red, estas no justifican por sí solas la intervención del estado (IERAL, 2000).

#### 4. Características sociodemográficas.

Las características sociodemográficas de la población son un determinante importante de las posibilidades de adopción masiva de las nuevas tecnologías. Las principales características de los usuarios de Internet en América Latina pueden resumirse en las siguientes: i) están concentrados en la población joven, ii) pertenecen a los segmentos de mayor poder adquisitivo, iii) gozan de un nivel educativo avanzado (educación secundaria o universitaria), iv) están representados por una proporción levemente superior de hombres (60% de hombres y 40% de mujeres aproximadamente) y v) son en su mayoría residentes urbanos.

Si bien el nivel económico es una barrera importante a la adopción masiva, puede resolverse en el corto plazo a través de políticas tendientes a asegurar el acceso universal en forma gratuita, por ejemplo a través de la instalación de puestos públicos de Internet.

El nivel educativo de la población es considerado la variable más importante que puede limitar la difusión de las nuevas tecnologías, ya que puede corregirse solamente en el largo plazo. El manejo de las herramientas necesarias para el uso de las nuevas tecnologías requiere de un grado de calificación mínimo. Por lo tanto, un mejor nivel educativo de la población facilita la asimilación de las prácticas necesarias para la interacción entre los ciudadanos y el gobierno a través de Internet.

Además de los condicionantes antes mencionados, existe cierta proporción de la población -que varía de acuerdo a los países- que nunca adoptará las nuevas tecnologías ya sea por razones culturales, de costumbre, etc. Una de las variables principales que explica el rechazo a la utilización de las nuevas tecnologías es la edad. Los usuarios de Internet se concentran en la población joven y la proporción de usuarios se reduce considerablemente en los grupos de mayor edad.

Argentina, Brasil y Chile -y en general toda América Latina- poseen la particularidad de que su población es mayoritariamente joven. Los habitantes menores a treinta años en Argentina representan el 53,3% de la población total, en Brasil el 62,8% y en Chile el 53,7% (e-marketer, 2000). De lo anterior pueden deducirse dos cuestiones: i) la explicación de porqué el usuario medio en América Latina tiene entre 24 y 27 años, y ii) las buenas expectativas de crecimiento de Internet -y por consiguiente del *e-government*- en la región.

#### B. Perspectivas futuras: Estrategias para un desarrollo exitoso y prescripciones de política pública.

El potencial de desarrollo del *e-government* es enorme, pero su éxito dependerá crucialmente de la capacidad de adaptación de los gobiernos y de su habilidad para adoptar una estrategia que le permita sortear las principales barreras a su desarrollo. Dicha estrategia debe contemplar un proyecto de mediano/largo plazo que establezca los lineamientos fundamentales para todas las iniciativas relacionadas al gobierno electrónico y que contemple el establecimiento de un órgano director y coordinador.

La implementación de proyectos TIC a gran escala plantea grandes riesgos para los gobiernos<sup>37</sup>, y la incapacidad de éstos de manejarlos adecuadamente se plantea como una amenaza al desarrollo del *e-*

<sup>37</sup> Generalmente se considera que el riesgo de fallar es prácticamente directamente proporcional al tamaño del proyecto encarado (OCDE, 2000).

existencia de un sistema de información contable integral y adecuado, que refleje todas las transacciones gubernamentales, es una condición necesaria para el desarrollo de las etapas más avanzadas.

- Estimular la transición de los sitios institucionales (de presentación de información) a sitios prestadores de servicios.
- Orientar las políticas hacia el logro del acceso universal a las TIC a través, por ejemplo, de puestos públicos de acceso.

## VI. Conclusiones.

Argentina, y en general los países Latinoamericanos, muestran diferentes grados de avance en la utilización de las TIC por parte del sector público. A través del presente trabajo se pretendió brindar una visión global del *e-government* y sus avances en Argentina.

El gran dinamismo del tema, la existencia de ciertos retardos de implementación y el hecho que la mayoría de los proyectos se encuentran en su etapa de desarrollo no permiten llegar a apreciaciones concluyentes acerca de los avances alcanzados.

El análisis aislado de la situación actual del portal principal de acceso del gobierno nacional, no es un indicador adecuado del grado de desarrollo del *e-government*, pero sirve para visualizar a grandes rasgos la visión y la forma de estructurar las iniciativas de prestación de servicios.

Por otro lado, el estudio de los proyectos de *e-government* plantea la dificultad de diferenciar cuáles son puramente expresiones de deseo y cuáles son planes con una visión clara del gobierno electrónico y sus ventajas.

El análisis de los principales determinantes del desarrollo, sugiere que Argentina posee ciertas ventajas relativas en cuanto a infraestructura y al nivel socioeconómico de su población. Sin embargo deberá apuntar a políticas que conduzcan a una reducción de los costos de acceso a Internet y a aumentar la competencia en el mercado de las telecomunicaciones, para incentivar un aumento en la penetración de las TIC y de Internet. Esto permitiría una disminución del impacto de la brecha digital y así ayudar al cumplimiento del principio social de brindar y mejorar la calidad de sus servicios a los ciudadanos.

En cuanto al desarrollo e implementación de iniciativas, se observa que si bien la mayoría de los organismos han introducido nuevas tecnologías de gestión, el alcance de las mismas no fue generalizado ni regulado de forma tal de aprovechar integralmente sus ventajas. En general, la implementación de las nuevas tecnologías, estuvo asociada a la mayor o menor disponibilidad de recursos financieros de los organismos y no a un plan estratégico tendiente a aumentos en la eficiencia y transparencia de la gestión pública y a un mejoramiento de la calidad de los servicios prestados. De esta manera no se aprovecharon, diseminaron ni compartieron las experiencias entre los organismos en los diferentes poderes y niveles de gobierno.

La inexistencia de una política de armonización y regulación en la incorporación tecnológica, derivó en el agravamiento de diversas deficiencias: la ausencia de estándares tecnológicos básicos, la duplicación de tareas, la falta de seguridad de las redes y la incompatibilidad de las mismas. Sin embargo, actualmente se observan importantes esfuerzos tendientes a unificar programas, compatibilizar sistemas y a armonizar la información disponible, lo cual contribuiría, al menos en parte, a resolver los problemas observados.

En la mayoría de los países del mundo -incluso en los más desarrollados- el *e-government* se encuentra en las primeras etapas de desarrollo, propone un elevado potencial de crecimiento y promete el logro de cuantiosos beneficios esperados. Sin embargo, si bien la sociedad del conocimiento tiene la potencialidad de generalizar el bienestar, puede derivar en el agravamiento de la desigualdad y

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**E-GOVERNO NO BRASIL**

**Estudo da Secretaria para Assuntos Fiscais do Banco Nacional de Desenvolvimento  
Econômico e Social (SF/BNDES), elaborado por Andréa Gomes Fernandes  
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### Abstract

This paper describes the situation of *e-government* in Brazil. The first section brings some theoretical considerations on functions and typical stages of development of *e-government*. In the second section, the main national programs and guidelines on the subject are described. Finally, the paper provides a summary of best practices of *e-government* at the federal and at the subnational levels.

### Resumo

O trabalho procura descrever o estágio atual do *e-governo* no Brasil. A primeira parte traz algumas considerações sobre as funções do governo eletrônico e os estágios típicos de desenvolvimento de portais governamentais. Na segunda parte, são descritos os principais programas nacionais que devem orientar as próximas ações voltadas para a consolidação do *e-governo* no país. A terceira parte apresenta uma descrição sintética de experiências bem-sucedidas de *e-governo* tanto no nível federal quanto no âmbito dos governos subnacionais. O artigo discute ainda as implicações da implantação do governo eletrônico no que concerne à inclusão e ao federalismo.

### Introdução

O uso, pelos governos, das novas tecnologias da informação na prestação de serviços e informações para cidadãos, fornecedores e servidores constitui o que se convencionou chamar de *e-governo*. No Brasil, a melhor estratégia para a disseminação do uso da Internet na função pública e a definição de qual é o papel do Estado neste campo vêm sendo objeto de crescente interesse e debate.

Vários estudos<sup>1</sup> indicam que tanto o governo federal quanto os governos subnacionais já estão consideravelmente envolvidos com a aplicação das novas tecnologias da informação na administração pública. Grandes dificuldades, porém, persistem. De um lado, está o desafio da ampliação do acesso à Internet no país. De outro lado, a interoperabilidade<sup>2</sup> entre os diversos órgãos da administração pública - sem a qual não é possível atingir estágios mais avançados de *e-governo* - depende de investimentos consideráveis na modernização administrativa da União, estados e municípios.

Com relação ao primeiro problema, o Programa *Sociedade da Informação no Brasil* (<http://www.socinfo.org.br/>), cujo *Livro Verde* foi lançado recentemente pelo Ministério da Ciência e Tecnologia, tem como objetivo principal articular e coordenar o desenvolvimento e a utilização de produtos e serviços avançados de computação, comunicação e conteúdos, visando à universalização do acesso e à inclusão de todos os brasileiros na Sociedade da Informação.

O aumento da interoperabilidade, por sua vez, vem sendo perseguido de diversas maneiras. Linhas de financiamento foram criadas<sup>3</sup> para fomentar a modernização administrativa de estados e municípios. No nível federal, foi lançado recentemente o programa piloto *Rede Br@sil.gov* (<http://www.governoeletronico.gov.br/>).

<sup>1</sup> Farto material pode ser encontrado na página sobre Governos on-line do site Banco Federativo (<http://federativo.bndes.gov.br/>). Ver apresentação *Governo Eletrônico no Brasil*, do chefe da Casa Civil, Ministro Pedro Parente, mostrando a posição oficial do Governo Brasileiro sobre o tema.

<sup>2</sup> Sobre o conceito de interoperabilidade e para uma comparação interessante sobre estratégias governamentais nesse campo, ver documento oficial do Governo do Reino Unido *E-government Interoperability Framework* (Central IT Unit- Cabinet Office, 2001).

<sup>3</sup> Como os programas PMAT do BNDES e PNAFE e PNAFM, do Ministério da Fazenda.

g) estímulo aos *e-negócios*, através da criação de ambientes de transações seguras, especialmente para pequenas e médias empresas.

O desenvolvimento do *e-governo* passa, geralmente, por quatro estágios.<sup>5</sup> O primeiro consiste na criação de *sites* para a difusão de informações sobre os mais diversos órgãos e departamentos dos diversos níveis de governo. Eventualmente, esses *sites* são reunidos em um portal que, neste estágio, consiste apenas em uma espécie de catálogo de endereços dos vários órgãos do governo.

No segundo estágio, estes *sites* passam também a receber informações e dados por parte dos cidadãos, empresas ou outros órgãos. A comunicação neste caso torna-se uma via de mão dupla. O contribuinte pode enviar sua declaração de imposto de renda ou informar uma mudança de endereço; são criados endereços eletrônicos para receber reclamações ou sugestões nas diversas repartições; firmas se cadastram eletronicamente para o fornecimento de certos serviços; dados são transferidos, usando a Internet, de um departamento ou de uma prefeitura ou de uma unidade hospitalar, por exemplo, para um órgão central, e assim por diante.

Na terceira etapa de implantação do *e-governo*, as transações se tornam ainda mais complexas. Neste estágio, são possíveis trocas de valores que podem ser quantificáveis. São realizadas operações como pagamentos de contas e impostos, educação à distância, matrículas na rede pública, marcação de consultas médicas, compras de materiais, etc. Em outras palavras, além de informações, valores são trocados e serviços anteriormente prestados por um conjunto de funcionários atrás do balcão são agora realizados usando uma plataforma de rede e uma interface direta e imediata com o cidadão ou empresa. Isto implica adaptações nos processos de trabalho.

Estas modificações tornam-se ainda mais complexas e radicais no quarto estágio de implantação do *e-governo*. Nele, é desenvolvido um tipo de portal que não é mais um simples índice de *sites* do governo com centenas de endereços, mas um lugar de convergência de todos os serviços prestados pelo governo. Neste estágio, o serviço é disponibilizado por funções ou temas, e não segundo a divisão real do governo em ministérios, departamentos, etc.<sup>6</sup>

Assim, ao lidar com o governo, cidadãos ou empresas não precisam mais dirigir-se a inúmeros órgãos diferentes para procedimentos como mudar de estado civil, requerer seguro-desemprego, abrir uma firma ou obter uma determinada licença. É possível resolver tudo em um único lugar, com uma única senha. O usuário não tem de saber quais órgãos ou departamentos, de quais níveis de governo e em que seqüência são mobilizados para a realização de um determinado serviço ou a prestação de uma informação. O que acontece por detrás da interface eletrônica (*off-line*) não interessa a ele.

Para que isso seja possível, contudo, é necessária uma mudança radical nos bastidores, pois muitos dos serviços a serem realizados exigirão uma intensa colaboração entre os diversos órgãos e repartições, por meio de uma Intranet governamental segura, que integre todos eles. Em outras palavras, num estágio avançado do *e-governo*, automação de atividades e racionalização dos procedimentos implicam transformações radicais dos processos de trabalho, e não apenas agilização destes processos. O desenvolvimento da interoperabilidade entre os vários órgãos da administração pública, enfim, torna premente uma verdadeira reforma administrativa do Estado. E não é possível levar esta tarefa a cabo sem um intenso programa de treinamento e reciclagem de todos os funcionários públicos.

De forma geral, pode-se dizer que, na maioria dos países, os princípios gerais que orientam o *e-governo*, qualquer que seja o seu estágio, são a democratização do acesso à informação, a universalização na prestação dos serviços públicos, a proteção da privacidade individual e a redução das desigualdades sociais e regionais.

<sup>5</sup> Para uma visão geral destes estágios em diversos países, ver *The Next Revolution: a Survey of Government and the Internet*, em *The Economist*, 24/06/2000.

<sup>6</sup> Ver exemplo do eficiente portal de serviços do governo de Singapura (<http://www.ecitizen.gov.sg/>); ver ainda o portal institucional do governo deste país (<http://www.gov.sg/>).

(devendo-se considerar, por seu turno, as disparidades regionais e de renda) e deve ser irrestrito (igualdade de oportunidade).

Assim, o acesso universal<sup>10</sup> exige tanto a superação das dificuldades infra-estruturais relativas ao desenvolvimento de redes de telecomunicação e ao acesso democrático a elas; quanto, principalmente, a educação digital da população, isto é, a sua capacitação para usar e manejar os novos meios de comunicação. Na verdade, pode-se dizer que o horizonte das políticas federais voltadas para o governo eletrônico é a infoinclusão.

Considerando, porém, os graves problemas de desigualdade na distribuição da renda, as dimensões continentais do país, o tamanho da população e a grande autonomia financeira, política e administrativa dos governos subnacionais, o governo federal optou por estabelecer diretrizes nacionais, ao invés de impor políticas centralizadoras na matéria, de mais a mais completamente incompatíveis com o espírito da Internet.

Esta é a orientação para os três programas citados acima, que descreveremos a seguir.

#### **A. Sociedade da Informação** (<http://www.socinfo.org.br/>)

Com a abertura da Internet à operação comercial, a partir de meados de 1995, o governo brasileiro cumpriu o primeiro ciclo de desenvolvimento das redes nacionais. O programa *Sociedade da Informação no Brasil* (<http://www.socinfo.org.br/>) visa a propor alternativas para a próxima fase da Internet no país.

Ele é fruto dos esforços do Conselho Nacional de Ciência e Tecnologia (CTT). O programa, que é coordenado pelo Ministério da Ciência e Tecnologia, foi instituído por um decreto-lei em dezembro de 1999 e faz parte do conjunto de projetos que compõem o Plano Plurianual 2000-2003 (PPA), tendo um aporte de recursos previsto da ordem de R\$ 3,4 bilhões. Seu detalhamento foi confiado a um grupo de implantação, composto por representantes do governo, setor privado, comunidade acadêmica e terceiro setor.

O programa *Sociedade da Informação* está estruturado em sete grandes linhas de ação:

- a) mercado, trabalho e oportunidades;
- b) universalização dos serviços e formação para a cidadania;
- c) educação na sociedade da informação;
- d) conteúdos e identidade cultural;
- e) governo ao alcance de todos;
- f) P&D, tecnologias-chave e aplicações;
- g) infra-estrutura avançada e novos serviços.

Cada linha de ação tem seus próprios mecanismos de execução que incluem parcerias com o setor privado e cooperação internacional, em combinações apropriadas à natureza de cada atividade. A fase de implantação, que se iniciou em 2000 e continua neste ano, compreende três momentos: a elaboração de uma primeira proposta detalhada do programa, o chamado *Livro Verde*; amplo processo de consulta à sociedade e consolidação, em um *Livro Branco*, de um plano definitivo de atividades para o programa, gerado a partir da incorporação ao *Livro Verde* das idéias e opiniões colhidas na consulta pública.

<sup>10</sup> "A Lei Geral de Telecomunicações (LGT), de 16/07/1997, considera serviço público- para o qual se exige universalização- apenas o serviço telefônico fixo comutado. A lei não abrange a telefonia móvel celular, nem a comunicação de dados, nem a Internet. A inclusão formal e concreta do acesso à Internet no conceito de universalização ainda é um enorme desafio para a sociedade brasileira". *Sociedade da Informação no Brasil- Livro Verde* (2000: 36).

A primeira dessas medidas foi a aprovação do Código de Conduta da Alta Administração Federal<sup>13</sup>, que tem como principais objetivos:

- a) tornar claras as regras éticas de conduta da Alta Administração Pública Federal, para que a sociedade possa aferir a integridade e lisura do processo decisório governamental;
- b) contribuir para o aperfeiçoamento dos padrões éticos da Administração Pública Federal;
- c) preservar a imagem e a reputação do administrador público;
- d) estabelecer regras básicas sobre conflitos de interesses públicos e privados e limitações às atividades profissionais posteriores ao exercício do cargo público;
- e) minimizar a possibilidade de conflito entre o interesse privado e o dever funcional das autoridades públicas;
- f) criar mecanismo de consulta destinado a possibilitar o prévio e pronto esclarecimento de dúvidas quanto à conduta ética do administrador.

Este último ponto remete diretamente a uma das principais funções de *e-governo* mencionada acima, que é a de promover maior *accountability* na gestão pública. Este também é o objetivo das demais medidas do *Brasil Transparente*, que consistem em duas propostas de mudanças legais- uma emenda constitucional e uma lei complementar- destinadas a reforçar os mecanismos de responsabilização, de controle interno e externo sobre a gestão dos recursos públicos e de controle social.

A responsabilização só pode ser atingida, com efeito, por meio de normas legais mais claras e precisas sobre a aprovação de despesas no orçamento e sobre a prestação de contas ao final de cada exercício financeiro. Como os três poderes- executivo, legislativo e judiciário- possuem autonomia administrativa na gestão dos seus recursos assegurada pela Constituição, é fundamental aperfeiçoar ainda mais os mecanismos e as instâncias de aprovação e acompanhamento das despesas.

De igual modo, deverão ser fortalecidos tanto o controle interno, no âmbito de cada poder, quanto o controle externo, realizado pelos Tribunais de Contas, que com estas medidas terão condições de agir com muito mais eficácia no combate às irregularidades.

Deste modo, o Anteprojeto de Emenda à Constituição propõe regras para a prestação de contas, a atuação integrada entre os órgãos de controle, o fortalecimento técnico e institucional dos Tribunais de Contas e a responsabilização solidária dos dirigentes dos Tribunais em relação ao processo orçamentário, no âmbito do poder judiciário. Os pontos mais relevantes do anteprojeto, no que concerne ao tema do governo eletrônico, são:

- integração entre os órgãos de controle: determina a articulação entre os órgãos de controle interno dos três Poderes. Eles terão prazo de 30 dias para dar ciência ao Tribunal de Contas da União e ao Ministério Público das irregularidades na gestão dos recursos públicos de que tomarem conhecimento. Essas regras são extensivas aos estados, municípios e Distrito Federal;
- controle social: prevê o controle social das contas públicas, permitindo o acesso da sociedade às contas por meio da Internet, sendo que este canal poderá ser usado para recebimento de denúncias de irregularidades. Fixa prazos de apuração e divulgação das conclusões sobre as denúncias.

Como se observa facilmente no Anteprojeto de Emenda à Constituição, os princípios de transparência fiscal e controle social direto, facilitados pela expansão do governo eletrônico, são alçados a nível constitucional. Mais detalhes aparecem no Anteprojeto de Lei Complementar, que trata dos princípios e mecanismos de controle dos orçamentos e da prestação de contas anual, aplicando-se à União, estados, municípios e Distrito Federal.

<sup>13</sup> As normas deste código se aplicam às seguintes autoridades públicas: Ministros e Secretários de Estado; titulares de cargos de natureza especial e secretários-executivos; presidentes e diretores de agências nacionais, autarquias, fundações mantidas pelo Poder Público, empresas públicas e sociedades de economia mista.

*Obrasnet* reunirá informações sobre todas as etapas da obra- projeto inicial, indicadores de custos, pareceres técnicos do controle interno e externo. O sistema disporá ainda de um banco de dados com informações sobre preços de mercado, que servirá de parâmetro para a correta avaliação e definição de custos de obras públicas.

Finalmente, o *Brasil Transparente* também se insere no esforço nacional de ampliar o acesso à Internet, trazendo menção explícita a dois aspectos fundamentais da questão, qual sejam a redução de custos da Internet (estão previstos vários estudos) e o aumento dos pontos públicos de acesso.

Vale aqui lembrar que para que a Internet possa cumprir o papel de auxiliar na construção de uma gestão pública participativa e transparente, é fundamental a existência de um sistema de contabilidade pública bem organizado, que registre todas as transações fiscais e parafiscais de modo apropriado. Sem este pré-requisito, a prestação de contas será deficiente, quer por mecanismos tradicionais de comunicação, quer via Internet.

De fato, esta tem sido uma preocupação de vários países, que para isso contam, por exemplo, com iniciativas como o *Manual de Transparência Fiscal* e o *Código de Boas Práticas para a Transparência Fiscal* do Fundo Monetário Internacional.

O manual não apresenta instruções específicas sobre como implementar as boas práticas, mas fornece numerosas referências e endereços na Internet que podem ser úteis na implementação prática do Código. Segundo o manual, "A informática também pode desempenhar uma função importante na eliminação de oportunidades para a tomada de medidas discricionárias, bem como para permitir o monitoramento eficaz de atrasos, isenções, recursos e pagamentos. (...) Os sistemas computadorizados também devem permitir a troca instantânea de informações entre as administrações fiscais, respeitadas as disposições de confidencialidade e as restrições jurídicas de cada país". (p. 25) Nenhum dos dois documentos, porém, faz menção explícita ao papel do *e-governo*.

Nesta matéria, pode-se, portanto, concluir que o Brasil está em posição de relativo avanço, o que é confirmado pela aprovação no ano passado da Lei de Responsabilidade Fiscal. Trata-se, como se sabe, de um código de conduta para administradores públicos de todo o país, que vale para os três poderes (executivo, legislativo e judiciário), nas três esferas de governo (federal, estadual e municipal). A Lei fixa limites para despesas com pessoal, para dívida pública e ainda determina que sejam criadas metas para controlar receitas e despesas. Além disso, segundo a Lei, nenhum governante pode criar uma nova despesa continuada (por mais de dois anos), sem indicar sua fonte de receita ou sem reduzir outras despesas já existentes. Pela LRF ainda, são definidos mecanismos adicionais de controle das finanças públicas em anos de eleição.

Uma das grandes inovações da Lei é a participação dos cidadãos no controle das ações dos governantes. Com efeito, o próprio processo de elaboração da Lei envolveu uma consulta pública, realizada através da Internet, onde foram registrados mais de 5000 acessos.

A Lei determina que o acesso público às contas deve ser amplo, inclusive por meio eletrônico, via Internet. Mais precisamente, de acordo com a Lei de Responsabilidade Fiscal, cada governante terá de publicar a cada quatro meses o *Relatório de Gestão Fiscal*, que vai informar, em linguagem simples e objetiva as contas da União, estados, municípios e Distrito Federal, do Ministério Público e dos Poderes legislativo, executivo e judiciário de todas as esferas de governo.

A Lei de Responsabilidade Fiscal não apenas representa um enorme avanço na forma de administrar os recursos que os contribuintes põem à disposição dos administradores públicos, mas também instaura uma nova cultura fiscal no país. E isto passa, evidentemente, pelo desenvolvimento e consolidação do *e-governo* nos três níveis da Federação.

e iniciativas das mais relevantes tenham surgido ligando vários ministérios e departamentos, só agora, com o *Br@sil.gov*, a interoperabilidade aparece como uma política de governo prioritária.

O governo federal diagnosticou que, atualmente, existe um enorme descompasso entre os órgãos no ritmo de implantação de soluções de integração. Por outro lado, as redes são isoladas, não podendo muitas vezes comunicar-se entre si, dada a falta de padronização e a falta de regulamentação da autenticação de documentos eletrônicos. Na prática, isto significa que para atingir o estágio 4 acima descrito (convergência para um portal de informações e serviços únicos), um grande esforço de integração destas redes terá de ser feito, além, é claro, do desenvolvimento e aprovação do quadro jurídico-institucional adequado.

No que diz respeito precisamente aos aspectos legais da questão, pode-se dizer que o Brasil tem avançado significativamente nos últimos anos. Além do Decreto de criação do Comitê Executivo do Governo Eletrônico, vários outros decretos e leis foram aprovados recentemente visando a montar o arcabouço legal do *e-governo* no país. Entre eles, a Lei 9.983, que define os crimes eletrônicos contra a administração pública; o Decreto 3.505, que estabelece a política de gestão da informação; o Decreto 3.585, que regula a tramitação de documentos por meio eletrônico, e o Decreto 3.587, que cria a infraestrutura de chaves públicas.

Os próximos passos, no que concerne às medidas legais, são, de um lado, a viabilização da certificação e da assinatura eletrônicas e, de outro, a elaboração de um projeto de lei que assegure a validação dos documentos eletrônicos.

Com estes fundamentos jurídicos bem consolidados será possível atingir as metas estabelecidas para os próximos dois anos. O Plano de Metas – 2000-2002 para o Governo Eletrônico no Brasil compreende dois conjuntos de metas: a) metas voltadas para o cidadão/cliente e empresas e b) metas para a gestão interna do governo.

Metas para o cidadão/cliente e empresas:

- popularização do acesso à Internet;
- aperfeiçoamento das políticas de divulgação de informações e de prestação de serviços via Internet;
- consolidação da Rede Nacional de Informações em Saúde;
- unificação dos diversos cartões (previdência, saúde, etc) no Cartão do Cidadão;
- criação do Catálogo de Informações;
- instalação de PEP's<sup>15</sup> nas representações do governo federal;
- PEP's instalados em todas as localidades com mais de 600 habitantes;
- Programa de Informatização das Ações Educacionais;
- criação do Portal de Apoio à Procura de Emprego.

Por sua vez, são metas para a gestão interna do governo:

- efetivação do Comitê Executivo do Governo Eletrônico;
- orientação e padronização para o desenvolvimento de *sites*;
- criação da Infra-estrutura de Chaves Pública;
- inventário dos recursos disponíveis atualmente de tecnologias de informação e comunicação (TCI);
- individualização no orçamento dos recursos de TCI;
- consolidação do sistema de pregão eletrônico e dos outros sistemas de compras governamentais;
- desenvolvimento do Sistema de Informações Estratégicas;
- divulgação de Modelos de Referência para a Contratação de Redes;

<sup>15</sup> Ponto Eletrônico de Presença – PEP- é o local onde redes inteiras ou máquinas individuais conectam-se a uma rede maior ou *backbone*.

Seria impossível descrever nos estreitos limites desse trabalho tudo o que já existe a nível federal em termos de *e-governo*; ainda mais considerando a enorme diversidade dos órgãos, fundações, universidades públicas, autarquias, empresas publicas e outras unidades da administração pública direta e indireta federal. Vale a pena, entretanto, mencionar algumas experiências importantes pelo seu caráter inovador e pelo seu êxito indiscutível.

*Rede Governo* (<http://www.redegoverno.gov.br/>)

O *Rede Governo* é o portal de entrada para todas as páginas do governo federal na Internet<sup>16</sup>. A sua implantação teve início em 1995, quando a prestação de serviços governamentais pela Internet era ainda não mais que uma promessa. O portal ([www.redegoverno.gov.br](http://www.redegoverno.gov.br/)), oferece conexões diretas com 641 páginas de serviços e 3.683 *sites* de informações, distribuídos em 31 grandes grupos temáticos. Dispõe ainda de ferramentas de pesquisa em assuntos variados da administração pública.

Atualmente, os órgãos que disponibilizam mais informações e serviços são, em ordem decrescente, aqueles ligados à educação, à fazenda, ao poder judiciário, à previdência social, às comunicações, à justiça, à minas e energia, ao planejamento e ao trabalho. Infelizmente, os serviços, que muitas das vezes ainda não são efetivamente realizados em tempo real, estão muito concentrados nestas poucas áreas.

Além de procurar resolver essas dificuldades, o governo federal vai fortalecer e ampliar o seu portal de serviços, tornando-o mais conhecido e incentivando a sua utilização pela população, através de grandes campanhas publicitárias e instalações de Pontos de Presença e infoquiosques nas repartições públicas federais.. O *Rede Governo* será, então, efetivamente, o grande canal de acesso a todos os serviços, assegurando padrões de funcionalidade e confiabilidade da informação, com funcionamento durante as 24 horas do dia, nos sete dias da semana e além disso, protegido contra invasões ilegais e outros crimes eletrônicos. Legislação sobre a privacidade das informações fornecidas pelos usuários já está sendo preparada nesse sentido.

É importante destacar que muitos serviços estarão sendo ampliados e aperfeiçoados. São serviços tais como a consulta à situação do contribuinte perante a Receita Federal, a solicitação de passaportes, o acesso aos saldos das contas do Fundo de Garantia por Tempo de Serviço (FGTS), o conhecimento dos avisos de licitações governamentais, o cálculo do tempo para aposentadoria, o acesso à lista de medicamentos genéricos, informações sobre as condições das estradas do país, a divulgação de concursos públicos e de oportunidades de trabalho no setor privado, consultas processuais, bibliotecas virtuais, diários oficiais, etc.

Além da oferta de serviços, a Internet também deverá, como vimos, ser o canal privilegiado para o exercício do controle social pelo cidadão. Os sistemas de gestão e de controle da administração federal, em áreas como orçamento, finanças e compras e contratações, já dispõem de *sites* na Internet, acessíveis pelo portal *Rede Governo*. O governo está atualmente implantando serviços de acesso direto às informações sobre a gestão dos recursos públicos e de recepção de denúncias e de solicitações de informação. Dessa forma, o portal *Rede Governo* deverá se consolidar como o principal canal para a interação entre o cidadão e o governo.

*Imposto de Renda* (<http://www.receita.fazenda.gov.br/>)

A informatização do imposto de renda no Brasil iniciou-se em 1964 e praticamente coincide com o início das atividades do Serviço Federal de Processamento de Dados (SERPRO). No princípio, a

<sup>16</sup> Para uma comparação com outros portais governamentais de prestação de informações e serviços, além do já citado portal de Singapura (<http://www.ecitizen.gov.sg/>), ver também, entre outros, os portais do Reino Unido (<http://www.open.gov.uk/>) e dos Estados Unidos (<http://www.firstgov.gov/>).



Por fim, será adotado, em breve, o *cartão de crédito do governo*. Ele será usado, como já acontece em outros países, para compras de passagens aéreas em condições mais vantajosas para a administração federal, porque dispensa o tradicional sistema de faturamento. Além disso, o cartão será empregado para a realização de despesas com suprimento de fundos, substituindo o cheque. O suprimento de fundos é uma modalidade de compras de pequeno valor, realizadas pelos "ordenadores de despesa"<sup>17</sup>, quando a implementação de algum projeto ou atividade da administração pública requer a pronta aquisição do bem ou serviço. Nestas situações, a utilização do cartão permite ainda um controle mais ágil e detalhado da despesa.

Vale ressaltar, que o *Comprasnet* e as outras iniciativas de compras governamentais só puderam ser implantadas, porque vários sistemas estruturadores haviam sido antes desenvolvidos no âmbito do governo federal. Em primeiro lugar, o SIASG (Sistema Integrado de Administração de Serviços Gerais).

O SIASG foi instituído por um decreto de 23/04/1994 e foi definido como uma ferramenta informatizada para operacionalizar o funcionamento sistêmico das atividades de gestão de materiais, serviços, edificações públicas, veículos oficiais, comunicações administrativas, licitações e contratações, atribuídas e concentradas em um outro grande sistema do governo federal, o SISG (Sistema de Serviços Gerais).

O SIASG, atualmente, é formado por vários módulos que foram sendo construídos e aperfeiçoados ao longo do tempo:

- em 1991, quando o sistema ainda não havia sido formalmente constituído, foi criado um Sistema de Catalogação de Material e Serviço com o objetivo de definir padrões de qualidade para os materiais e serviços adquiridos pelo governo;
- entre 1994 e 1995, foram desenvolvidos e implantados em escala nacional o COMUNICA e o SICAF. O COMUNICA propicia e agiliza a troca de informações entre as unidades integrantes do SIASG. O SICAF é um sistema operado *on-line* que cadastra e habilita as pessoas físicas e jurídicas interessadas em participar das licitações promovidas pelos órgãos e entidades integrantes do SISG;
- entre 1997 e 1999, foram desenvolvidos o SIDEC, SIREP e o SICON. O SIDEC oferece rotinas automatizadas para a publicação dos avisos de licitações na Imprensa Oficial. O SIREP atende às consultas dos gestores públicos sobre preços praticados nas licitações realizadas no âmbito do SISG. O SICON registra e acompanha os contratos firmados pela administração federal;
- em 2000, foi concluída a implantação do módulo EMPENHO que possibilita a geração automática de minutas de empenho de forma interligada com o SIAFI.

Por sua vez, o SIAFI- Sistema Integrado de Administração Financeira do Governo Federal- foi desenvolvido em 1986 e implantado em janeiro de 1987, visando a suprir o governo federal de um instrumento moderno e eficaz no controle e acompanhamento dos gastos públicos.

Depois de ter sido aperfeiçoado ao longo de mais de uma década de existência, atualmente, o SIAFI é um sistema *on-line* que se constitui no principal instrumento de administração orçamentária e financeira da União, provendo os órgãos centrais, setoriais e executores da gestão pública de mecanismos adequados à realização, ao acompanhamento e ao controle da execução orçamentária e financeira, tornando a contabilidade fonte segura de informações gerenciais.

Sem o desenvolvimento prévio e o aperfeiçoamento de todos esses sistemas, o governo federal não poderia levar hoje adiante os diversos projetos pioneiros no campo das compras governamentais, ou *e-procurement* governamental.

<sup>17</sup> *Ordenadores de Despesa* são servidores encarregados da realização dos gastos e prestação de contas.

já é considerável, tendo, muitas vezes, até mesmo atingido estágios relativamente avançados de *e-governo*.<sup>21</sup>

## 1. Municípios

No que diz respeito ao nível municipal, em uma pesquisa recente, realizada a partir de uma amostra de 83 municípios dos estados de São Paulo, Minas Gerais e Santa Catarina, estimou-se que 72% das prefeituras com mais de 200 mil habitantes já devem estar utilizando a rede para serviços e informações à população.<sup>22</sup> A complexidade e a qualidade das informações prestadas aos usuários variam muito entre os *sites* e relativamente poucas prefeituras prestam serviços efetivamente em tempo real.

Contudo, muitos municípios, especialmente capitais e os de regiões metropolitanas, já estão preparados para receber dados dos usuários, atingindo os estágios dois e três descritos acima. É o caso, por exemplo, do *site* da Prefeitura de Manaus (<http://www.pmm.am.gov.br/>). Lá existe o SACnet, onde o contribuinte, através, de uma senha, consulta, tira dúvidas, atualiza dados cadastrais e acompanha processos junto à prefeitura. Serviço semelhante é oferecido por outras prefeituras, como a do Rio de Janeiro (<http://www.rio.rj.gov.br/>) e de Porto Alegre (<http://www.portoalegre.rs.gov.br/>). Neste último *site*, entre outras coisas, é possível ainda realizar boa parte dos procedimentos para a obtenção de alvará, notificar um óbito e acionar um serviço funerário, acompanhar o tráfego da cidade, avisar sobre uma fuga de água, calcular o IPTU e obter a guia eletrônica para recolhimento do ICMS (que, contudo não pode ainda ser entregue via Internet).

No *site* da Prefeitura do Rio, é possível pedir certidões via *e-mail* ou ainda solicitar, via Internet, o serviço de um eletricista, bombeiro hidráulico, pintor, técnico de geladeira, etc, do *Programa de Apoio do Trabalhador Autônomo*.

Em Vitória (<http://www.vitoria.es.gov.br/>) é possível solicitar eletronicamente serviços, tais como, poda de árvores, desobstrução de bueiros, cálculo de tributos devidos e parcelamento da dívida, envio de livros editados pelas secretarias da cultura e do esporte, etc. Solicitação de audiências com o prefeito também podem ser feitas pela Internet, bem como vários tipos de denúncias. O *site* de Vitória mantém um serviço de ouvidoria da prefeitura e traz ainda uma página com informações sobre as compras municipais e licitações.

A Prefeitura de Betim (<http://www.betim.mg.gov.br/>) está instalando um portal em que o usuário procura os serviços por tema, recebe um passo a passo para obter o que deseja, com indicações de quais etapas pode realizar imediatamente, *on-line*. Uma vez efetivamente implantado este portal terá atingido, na prática, a fase 3 descrita acima.

Estes são apenas alguns exemplos de *sites* e portais municipais. Na verdade, o grande problema, a nível municipal, são as pequenas localidades. Uma boa parte dos 5507 municípios brasileiros ainda não dispõem sequer de sistemas administrativos informatizados, apesar do grande esforço do governo federal e de outras instituições para acelerar a modernização da gestão municipal.<sup>23</sup> Esta questão é crucial, considerando a importância do nível local na alfabetização digital dos cidadãos. Sem o desenvolvimento de uma cultura local favorável à absorção das novas tecnologias da informação e sem a criação de postos locais de acesso à rede, muitos habitantes de pequenos municípios estarão simplesmente alijados da chamada Nova Economia, sem falar no considerável prejuízo ao exercício pleno da cidadania.

<sup>21</sup> Para uma comparação com a situação norte-americana, ver *Assessing E-government: the Internet, Democracy, and Service Delivery by State and the Federal Governments*, West (2000).

<sup>22</sup> Ver «E-Gov: a Nova Fronteira da Internet», em *O Prefeito*, 17 de julho de 2000.

<sup>23</sup> Esta tem sido também uma preocupação do BNDES, que desde de 1997 dispõe de uma linha de crédito (PMAT- Programa de Modernização da Administração Tributária e da Gestão dos Setores Sociais Básicos) voltada para a modernização da administração tributária e dos setores sociais básicos dos municípios. (<http://www.bndes.gov.br/atuar/municip.htm>)

Pernambuco (<http://www.pernambuco.gov.br/>), além de informações para investidores potenciais e notícias sobre o governador, oferece alguns serviços da Secretaria de Fazenda, como a emissão de DAE (documentação de arrecadação estadual) virtual. Outros estados como Mato Grosso (<http://www.mt.gov.br/>) e Sergipe (<http://www.se.gov.br/>) têm portais relativamente simples, mas oferecem serviços *on-line* em áreas de alguma forma coordenadas pelo nível federal. No primeiro caso, além do pacote típico (notícias, agenda do governador, dados sócio-econômicos, estrutura de governo, etc), o *site* do Mato Grosso permite a consulta ao cadastro do Detran<sup>25</sup> para multas e infrações, licenciamento e outros serviços. Em Sergipe, por sua vez, além dos serviços ligados ao Detran, é possível acessar vários serviços fazendários através do Sintegra.<sup>26</sup>

Um estado merece aqui destaque, já que, além de serviços *on-line* fazendários permitidos pelo Sintegra ou relativos ao Detran, usa a Internet para desempenhar outra função de *e-governo* da máxima importância: a prestação de contas públicas. Trata-se do *site* do governo do Rio Grande do Norte (<http://www.rn.gov.br/>), que já apresenta os relatórios resumidos da execução orçamentária, conforme determina a Lei de Responsabilidade Fiscal.

Por fim, pode-se incluir também neste segundo nível de *e-governo* estadual, Rondônia e Amapá. Rondônia (<http://www.rondonia.ro.gov.br/>), embora tenha um *site* ainda muito simples, consistindo basicamente num grande banco de endereços eletrônicos, tem uma página especial denominada *Contas Públicas- Transparência*, onde as contas do estado são apresentadas à população. Além disso, um avanço que pode ser considerado ainda mais significativo, existe uma página especial sobre Lei de Responsabilidade Fiscal, que é usada pelo estado como meio para prestar assistência técnica aos municípios nesta matéria, com manuais e dicas de implantação da lei.

Finalmente, no grupo intermediário de *e-governo* estadual, pode ainda ser citado o caso do Amapá (<http://www.amapa.gov.br/>). Embora este estado também tenha um *site* relativamente simples (é inclusive um *site* que se apresenta não como um portal do governo, mas como o *site* da companhia de dados do estado) e trazer apenas serviços relacionados ao Sintegra, tem duas iniciativas que sinalizam já algum desenvolvimento na direção de uma atuação mais elaborada de *e-governo*.

Primeiro, para maior transparência, o governo estadual tem uma página chamada *Gestão do Dinheiro Público*, com demonstrativos sobre receitas, despesas e endividamento. Segundo, o Amapá desenvolve ainda uma iniciativa local muito criativa no que concerne à universalização do acesso à Internet: o *Projeto Navegar* (<http://www.amapa.gov.br/pnavegar-geral.htm>) Trata-se de uma embarcação regional, adaptada com equipamentos e acessórios de informática, conectados à Internet, via satélite, que procura integrar as comunidades da região ribeirinha do Arquipélago do Bailique, localizado a cerca de 150 km de Macapá nas proximidades da Foz do Rio Amazonas (aproximadamente 12 horas de transporte hidroviário bastante precário por causa das condições de navegabilidade). O objetivo principal da iniciativa é garantir o acesso às informações necessárias para o pleno desenvolvimento sustentável da região. Trata-se de um bom exemplo de como o governo pode, usando as novas tecnologias, integrar populações localizadas em regiões de difícil acesso.

<sup>25</sup> Na maior parte dos estados, o Detran já conta com serviços efetivamente *on-line*, que vão desde a consulta de multas até o agendamento eletrônico de vistoria.

<sup>26</sup> O Sintegra (<http://www.sintegra.gov.br/>), Sistema Integrado de Informações sobre Operações Interestaduais com Mercadorias e Serviços, consiste num conjunto de procedimentos administrativos e de sistemas computacionais compartilhados pelas administrações tributárias de vários estados. O sistema visa a simplificar e homogeneizar as obrigações relativas a compras, vendas e prestação de serviços interestaduais. Mais detalhes podem ser encontrados em *Governo Eletrônico e as Administrações Tributárias Estaduais Brasileiras: Evolução e Benchmark*, (UCP/PNAFE, 2000).

O *Rede Cidadão* paranaense tem também um balcão de empregos eletrônico e um serviço de consulta às bibliotecas do estado. Este último, chamado *Libr@rium*, também disponibiliza *softwares* grátis para a automação de bibliotecas.

Algumas iniciativas interessantes foram desenvolvidas na área de saúde. Entre julho de 1995 e fevereiro de 1996, a secretaria de saúde do estado implantou 11 centrais informatizadas de marcação de consultas especializadas e 13 para leitos e internações, com o objetivo de organizar a oferta e a utilização desses serviços pela clientela do Sistema Único de Saúde (SUS). Estas centrais funcionam com 13 centrais telefônicas, com aproximadamente 120 linhas telefônicas, 13 redes de processamento (servidores, micros e impressoras), operadas por cerca de 250 servidores. As centrais atendem também solicitações de consultas e internamentos das secretarias ou departamentos municipais de saúde, bem como de hospitais cadastrados na sua área de abrangência.

No Paraná, existe, ainda, uma rede de controle homoterápico, que conecta todas as 568 unidades homoterápicas, públicas e privadas, do estado e pode ser acessada pelo portal estadual. Na página do *Sangue no Paraná*, cada unidade pode solicitar ao órgão central responsável a impressão das etiquetas para as bolsas de sangue. Por meio da referência básica- o número da Etiqueta-bolsa, que é controlada pela Vigilância Sanitária- o sistema coleta as informações que contribuirão, posteriormente, entre outras coisas, para a rastreabilidade do sangue, investigação epidemiológica, análises estatísticas e controle e avaliação do pagamento de procedimentos homoterápicos.

Existe ainda um sistema de ouvidoria e informação, o *Telecidadão*, que funciona por meio de ligação telefônica gratuita e é estruturado a partir de central telefônica informatizada.

A experiência acumulada nesses anos de formação desta rede e, sobretudo, da de marcação centralizada de consultas e internações deverá servir de base para a disponibilização futura desses e outros serviços via Internet. De qualquer modo, pode-se dizer que, no caso da saúde, o conceito de *e-governo* já está bastante desenvolvido no Paraná, tendo-se alcançado provavelmente o limiar do estágio 4. Vários serviços, departamentos e unidades, de vários pontos do estado, foram informatizados e conectados em redes. Os processos de trabalho foram profundamente alterados *off-line* e o atendimento ao cidadão tornou-se mais rápido e eficiente.

*Bahia* (<http://www.bahia.ba.gov.br/>)

Na área de saúde, a Bahia também desenvolveu experiência interessante em atendimento centralizado informatizado. Trata-se do serviço *Disque Maternidade*, que visa a melhorar o atendimento nas principais maternidades da rede pública estadual de Salvador e região metropolitana e consiste em um sistema informatizado que liga os 10 principais hospitais da rede a uma única central telefônica. Quando a gestante começa a sentir as dores do parto, ela liga para a central e é encaminhada para a maternidade mais próxima. Em seguida, após o parto, um oficial de registro civil fornece a certidão de nascimento ao recém-nascido na própria unidade de saúde. Em outras palavras, a informatização do serviço, a interligação das unidades e o atendimento via telefone permitem não apenas que seja resolvido um problema que tem se mostrado difícil em outros estados- a busca de leitos em obstetrícia- mas possibilita também que o recém-nascido tenha seus direitos de cidadão assegurados desde as primeiras horas de vida.

Nesta iniciativa bem-sucedida de *e-governo*, tal como no caso paranaense do *Telecidadão* e do sistema de solicitação de consultas e internações descritos acima, o acesso ainda é por telefone, via uma unidade de *call center*. Mas a base está dada para uma migração futura para acesso direto via portal estadual.

De fato, na Bahia, existe um grande esforço para unificar o atendimento aos cidadãos em um único ponto. O SAC- Serviço de Atendimento ao Cidadão- é um sistema integrado de serviços públicos, funcionando no estado desde 1995. Os postos SAC reúnem em um mesmo espaço físico vários órgãos e entidades das esferas federal, estadual e municipal. Além disso, existem áreas apropriadas para a espera e serviços de apoio: fotocópia, posto bancário, foto, etc.

Por meio do SIAFÍSICO, a Coordenadoria Estadual de Controle Interno pode checar os distintos preços praticados na aquisição de um mesmo item e, com isso, averiguar os casos onde há uma discrepância muito grande. Para que isso fosse possível, porém, foi necessário criar um cadastro de materiais e serviços (que uniformiza os itens de compra) e um cadastro de fornecedores (que dá maior transparência ao processo de compra e evita o favorecimento de um fornecedor).

A adesão de praticamente todos os órgãos da administração pública ao SIAFÍSICO permite que o monitoramento dos preços praticados no setor seja bastante amplo. Cada órgão público possui uma dotação orçamentária e as compras são feitas de forma descentralizada. Um regime de conta única, porém, obriga que todos eles registrem todas as transações em um mesmo sistema.

Mais recentemente, São Paulo inaugurou a Bolsa Eletrônica de Compras, um sistema para compras limitadas até R\$ 8.000, que estão dispensadas de licitação. No momento estão inscritos 28 mil fornecedores para disputar 88 mil itens.

Somadas às compras por cartão eletrônico, o montante negociado pelo estado pode chegar a R\$ 1 bilhão.<sup>27</sup> De fato, um dos principais objetivos de todos estes esforços (além, é óbvio, de aumentar a transparência e a lisura das transações) é tirar proveito deste enorme poder de compra do governo para reduzir custos.

Todas estas iniciativas em São Paulo só foram possíveis porque desde meados da década de 90, o estado vem passando por um processo de intensa modernização administrativa. A modernização da Secretaria de Fazenda do Estado permitiu que, em 1996, fosse iniciada a digitalização do relacionamento entre contribuinte e Estado.

São Paulo também é modelo em termos de portal governamental. Recentemente inaugurado, o novo portal do estado (<http://www.saopaulo.sp.gov.br/>) traz informações e serviços em tempo real, organizados por temas. Destacam-se as páginas relativas à prestação de contas (todos os relatórios da execução orçamentária já conforme a Lei de Responsabilidade Fiscal) e as páginas voltadas para as crianças e jovens, que propõem serviços variados, que vão desde a educação sexual até a inserção profissional de jovens no mercado de trabalho. O sistema *Jovem Cidadão- o Primeiro Emprego* oferece vagas para jovens, conectando, via Internet, empresas, escolas e o governo. O portal de São Paulo é, sem dúvida, modelo de excelência e em muitos aspectos (como por exemplo interface gráfica simplificada e amigável, velocidade e facilidade de acesso à informação desejada) está até à frente do portal do governo federal.

*Santa Catarina* (<http://www.sc.gov.br/>)

Embora o portal de Santa Catarina seja um pouco mais simples que os dos estados mais desenvolvidos em *e-governo*, ele merece estar incluído neste grupo pela experiência pioneira na área de educação. Neste domínio, onde os esforços de adaptar as novas tecnologias às práticas governamentais têm recebido ainda pouca atenção, Santa Catarina tem um exemplo interessante na criação e desenvolvimento da *Net Escola*.

A *Net Escola* é o resultado de um conjunto de inovações tecnológicas que tem como objetivo democratizar as informações educacionais da rede estadual de ensino. As informações, disponíveis pela Internet para a consulta de todos os cidadãos, referem-se a :

- i) dados cadastrais e escolares dos alunos,
- ii) dados cadastrais das escolas e coordenadorias regionais de educação,
- iii) estatísticas escolares.

<sup>27</sup> Este valor foi fornecido recentemente pelo Secretário de Fazenda do estado de São Paulo. Ver *Governos economizam com leilões on-line*, *Gazeta Mercantil*, 2/10/2000.

estágio 4 possa ser alcançado. Em outras palavras, todo cidadão deve ter acesso na Internet a um serviço de qualidade, sem se preocupar com que órgão e que nível de poder resolverá o seu problema.

Isto só será possível se for realizada com êxito a modernização da administração pública, especialmente de estados e municípios. Programas como o PMAT do BNDES são, com efeito, pedra angular desse processo, e deverão ser reforçados. Como para os outros aspectos da questão, cabe ao governo federal, também no que concerne ao financiamento, estabelecer uma política ordenada, mas sem implantação centralizada, respeitando o ritmo e as prioridades locais.

Além disso, do outro lado da linha, está a alfabetização digital da população, sem a qual a infoexclusão virá somente reforçar as demais graves desigualdades da sociedade brasileira. De fato, fomentar a universalização de serviços públicos eletrônicos “significa conceber soluções e promover ações que envolvam desde a ampliação e melhoria da infra-estrutura de acesso até a formação do cidadão, para que, informado e consciente, possa utilizar os serviços disponíveis na rede”. (*Livro Verde*: 31)

Em outras palavras, de um lado será necessário aumentar os Pontos de Presença (PEP's) e criar soluções de telecentros e infoquiosques. De outro, contudo, não se pode negligenciar o enorme esforço que será necessário para educar a população para a utilização consciente e responsável das novas tecnologias de informação e comunicação.

Concluindo, pode-se dizer, como no *Livro Verde*, que “o governo, nos níveis federal, estadual e municipal, tem o papel de assegurar o acesso universal às tecnologias de informação e comunicação e a seus benefícios, independentemente da localização geográfica e da situação social do cidadão, garantindo níveis básicos de serviços, estimulando a interoperabilidade de tecnologias e redes. Além disso, cabe ao governo estimular e viabilizar a participação de minorias sociais e outros segmentos marginalizados, os pequenos negócios, bem como as organizações sem fins lucrativos, de modo a que esses segmentos possam ter acesso aos benefícios que a sociedade da informação possa proporcionar. Cabe ainda estabelecer condições equânimes de competição entre os diferentes agentes econômicos, sem inibir as iniciativas de investimento e de novos negócios e implementar não só políticas públicas, mas também um aparato regulador e legal, harmônico e flexível, que proteja os interesses dos cidadãos e estimule o desenvolvimento do setor privado”. (*Livro Verde*: 11)

