

Distr.
RESTRICTED

LC/R.968
January 30, 1991

ORIGINAL: ENGLISH

E C L A C

Economic Commission for Latin America and the Caribbean.

SEMINARS ON SAVINGS AND FINANCIAL SYSTEMS:

EXPERIENCES IN LATIN AMERICA*/

(Summary and Conclusions)

*/ Document not subjected to editorial revision.

91-1-81

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SUMMARY AND CONCLUSIONS

The first seminar, which dealt with the subject of "Savings and efficiency in the allocation of financial resources: Experiences in Latin America", was held at ECLAC headquarters from 25 to 27 January 1989. The participants in this seminar analyzed five studies on savings and five studies on financial resources allocation. The second seminar, on "Saving and financing", was held at ECLAC headquarters from 29 November to 1 December 1989. At this second seminar, four studies on saving and three on the financial resources allocation were examined. All the studies were prepared by experts from the corresponding countries and were coordinated by Module II, "Development Financing", of the Joint UNDP/ECLAC Project for the Identification of Policy Options for the Economic Recovery and Development of Latin America and the Caribbean.

I. STUDIES ON SAVING

The studies on saving focused on the cases of Argentina, Brazil, Chile, Colombia, Ecuador, El Salvador, Mexico, Peru and Venezuela. These studies set forth the following points of view and preliminary conclusions:

1. Two hypotheses were presented concerning the generation of savings in the countries of the region. According to the first hypothesis, which is based on Keynesian tenets, savings are generated by investment; the second holds that saving is simply a consequence of differences between relatively constant consumption plans and fluctuating incomes, and is based on analytical constructs of a more neo-classical nature. Rather than making any attempt to choose between these two positions, consideration was given to the possibility that each might be valid under different circumstances. The general feeling was that corporate saving appears to be determined by their own investment opportunities, whereas household saving seems to be more closely linked to fluctuations in household incomes. The participants agreed that each hypothesis should be examined separately in order to analyze the possible substitutability of corporate and household saving and to identify the policies affecting them.

2. Pinpointing the determinants of domestic saving is particularly difficult owing to the quality of statistical data used to measure this variable. An economy's aggregate domestic savings is calculated as the difference between capital formation and external saving or the deficit on current account. Various problems of measurement are associated with the use of this method, including the poor quality of statistics on investment and the different units of measurement used for domestic saving (the local currency) and external saving (a foreign currency).

When domestic saving is to be broken down by agent (government, businesses and households), a different methodology should be used to prepare the statistics than that used for national accounts. Moreover, insufficient information is available on the depreciation of public assets, which biases the measurement of private saving.

All the above problems greatly limit the validity of conclusions drawn from the application of econometric methods to aggregate statistics. Analyses of the determinants of saving are more reliable when they are based on direct information on saving by the various agents (governments, businesses and households) in horizontal or transversal series.

Finally, aggregate saving series raise problems of identification in terms of econometric analysis. This is because saving and investment are equal by definition (in the aggregate), and it is therefore difficult to ascertain whether the results describe the behavior of saving or of investment.

3. The two most cogent conclusions reached with respect to determinants of saving are as follows: the first is the corroboration of the permanent income hypotheses according to which saving accommodates transitory variations in income from its trend level. Broadly speaking, this means that the saving coefficient drops during the downward phase of the economic cycle and vice versa. The second conclusion is that the real interest rate has virtually no influence on real savings; this rate does affect the stock of time deposits and other financial instruments holdings, but it has no influence upon the annual flow of real savings.

4. The participants underscored the influence of external factors on the volume and utilization of savings, noting that outward resource transfers associated with the external debt absorb a large proportion of domestic savings and push investment below the levels needed for growth. These effects become even more acute when the terms of trade worsen. The fact was emphasized that saving efforts may prove useless when external conditions constitute a major constraint on growth, and this type of situation was described as being one of "futile austerity".

5. The participants concluded that the way in which domestic and external saving are calculated should be modified so as to reflect implicit resource transfers more accurately. These calculations should be based on the amount of interest effectively paid, rather than on the total amount of interest due to creditors, since a portion of the latter is in some cases not paid at the time it becomes due. The experts also pointed out that nominal interest rates include a component which represents expected inflation; since inflation lowers the real value of the debt, this component of the interest rate is really an advanced amortization payment. Correcting this factor would reduce the effective level of interest

expenditure, thereby increasing public saving but reducing private saving.

6. The studies did not find evidence to support the hypothesis of a highly substitutive relationship between public and private savings, despite the fact that this theory has gained some currency in more developed countries. This suggests that increases in public saving do not necessarily lead to decreases in private saving and, therefore, that such increases do help to raise national saving as a whole. All the experts were in agreement as to the need to increase public saving rather than resorting to inflationary means of financing fiscal deficits. They added a note of caution, however, as regards any reduction in current public spending on health and education, which they see as playing a very important role in the formation of human capital. They also called attention to the need to closely monitor the productivity of investments and warned that a reduction of public saving could have an adverse impact on private saving and investment.

7. All the studies indicated that the servicing of the public domestic and external debts has been an important factor in the drop in public saving and investment. Hence, in view of the severe fiscal and balance-of-payment constraints engendered by the public debt, a restoration of the flow of external financing would greatly complement the domestic saving effort.

However, past experience has shown that domestic saving has diminished when there is an inflow of external savings; in other words, the two forms of saving have been substitutive. This phenomenon was explained in terms of the political economy of the public and private sectors, which tend to relax their policy on current expenditure when external financing becomes available.

8. In view of the enormous external debt burden and the importance placed by Latin America on the need to reduce its outward transfer of resources -- particularly that being made by the public sector -- it is essential that fiscal policy be altered so as to make use of any external source of debt relief to raise public-sector saving and investment. Such a policy could greatly complement private investment efforts either by providing for public investments which contribute to private investment or by channeling such funds to private investment projects.

9. Idle capacity exists in many countries of the region and in Latin America as a whole. If fiscal equilibria were restored and the balance-of-payments situation improved (through the solution of the external debt problem and the implementation of realistic exchange policies), output could be brought back up to its former levels. If the increase in consumption is brought under control (wage policy being the key factor in this respect), then a significant increase in saving can be achieved (as has been demonstrated in the case of Chile).

10. Institutions must be set up to attract savings from the labor force. This would mitigate the potential conflict between growth and distribution, given the empirical evidence of lower saving rates in low-income sectors.

11. The studies concluded that devaluations have an ambiguous effect on public saving, as their impact in this regard depend on whether the government has direct access to the benefits of a devaluation (as in the cases of Chile and Venezuela) or has to adopt special tax measures in order to do so (as in the cases of Argentina and Brazil). A devaluation may improve the balance-of-payments situation but add to the fiscal deficit, thereby speeding up inflation despite an improvement in the external sector.

12. Evidence was presented indicating that tax increases have a negative effect on saving by businesses. Their impact on total saving is unclear, however, due to the considerable inertia of fiscal expenditure, which leads to analogous variations in taxation and public saving. Hence, an increase in taxation can be expected to lower private saving and raise public saving, and thus basically involves a transfer of savings rather than a change in their level.

In any case, it was acknowledged that more research needs to be done on the impact of tax measures on the private sector. As a working hypothesis, it was postulated that in terms of the generation of savings, tax incentives aimed at encouraging businesses to save (reinvest their profits) would be more efficient than incentives for household saving.

13. Another highly important issue is that of maintaining residents' savings within the country, i.e., forestalling capital flight. In order for this to be done, domestic interest rates must offset the risk of devaluation, and a country's exchange, monetary and fiscal policies must be such as to uphold the credibility of the macroeconomic structure. The discussion brought out the fact that the macroeconomic framework is of fundamental importance both for the generation of saving and for its more efficient use. Macroeconomic disequilibria engender uncertainty on the part of economic agents and send contradictory signals that discourage saving, promote speculation and encourage capital flight even when the financial institutions which channel savings are functioning efficiently.

The financing of fiscal deficits is another key element. Financial repression, the saturation of capital markets with public debt and rampant inflation have caused public and private demand for investment to drop and have hindered saving.

II. STUDIES ON BANKING AND THE ALLOCATION OF FINANCIAL RESOURCES

The studies on banking and the allocation of financial resources covered the cases of Bolivia, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Uruguay and Venezuela. The main conclusions drawn from these studies are summarized below.

1. The participants considered the ways in which the deregulation of the banking system in the region is being carried out and concluded that it should continue to be a gradual process and that steps need to be taken to ensure the existence of appropriate prudential supervisory mechanisms capable of evaluating financial institutions' portfolio risks, including credit concentration. Problems in respect of related credits have arisen in various countries and have exacerbated the difficulties faced during times of crisis. Special emphasis was placed on the fact that an improvement in the financial system's competitiveness should not be achieved at the expense of its stability because, if this is sacrificed, the ensuing crisis might then destroy the system.

Two major areas were identified in which the region's financial systems need to be improved: appropriate regulatory mechanisms, and systems for the technical evaluation of projects that generate a demand for credit.

The key element in regulatory and supervisory systems is the quality rather than the quantity of controls. An excess of controls leads to financial repression, the parallel development of informal systems in which high-risk operations become concentrated, an over-segmentation of the credit market and capital flight. If, on the other hand, appropriate regulations governing exposure and contingency reserve and capital requirements are lacking, financial institutions may tend to become unstable.

2. Financial liberalization, when not accompanied by an adjustment of the regulatory and supervisory measures for safeguarding the solvency of the banking system, has led to a remarkable deterioration in the quality of bank portfolios. Effective regulation and supervision are essential when the State guarantees deposits, but even when this is not the case, preventive controls are still necessary since the State becomes involved when financial crises threaten the stability of the financial system.

3. The transparency of financial institutions' equity positions is an essential component of an effective system for regulating and supervising their solvency. Such transparency enables depositors to take financial institutions' exposure into account when deciding where to place their savings and encourages the managers of these

institutions to take appropriate steps to safeguard their financial standing. For the above reasons, providing the public with information on the actual financial status of these institutions constitutes a partial substitute for controls administered by a supervisory authority.

4. Financial crises entail equity losses which pose some very difficult economic policy choices. Financial institutions try to make up these losses by widening their interest rate spreads and, hence, raising their rates on loans. This practice makes loans less affordable for borrowers and encourages the relocation of credit operations abroad. At the same time, since such losses tend to increase over time, it is better if they are acknowledged early on. However, because the prices of assets are usually depressed during financial crises, attempts to absorb losses by quickly selling off assets may add to the losses to be covered by the State and exacerbate the redistributive effects of the steps taken to restore financial stability.

5. The management and behavior of interest rates during a process of financial liberalization raise a number of issues.

Firstly, it is important to ascertain what elements influence or determine interest rates, in which types of situations rates on loans or rates on deposits will be the dominant factor, and under what conditions these rates will be determined simultaneously.

Secondly, it has been observed that in a number of cases financial liberalization has led to high real interest rates despite significant adjustments in macroeconomic variables and in relative prices as well as progress in bringing inflation under control, although it is not clear which factors have kept interest rates at those levels. In this connection, attention was drawn to the importance of systematically monitoring interest rates on deposits, since the maintenance of positive, yet moderate, interest rates is regarded as an important sign that the financial system is functioning properly. Within this context, the procedure used to deregulate interest rates becomes an important element in avoiding excessive rises in these rates. Consideration should be given to whether it is better to begin by establishing an interest-rate band or by setting the rates at levels recommended by the authorities.

Lastly, questions were also raised concerning the maintenance of a system of nominal annual interest rates in countries subject to inflationary pressures and to a substantial reduction of the term of financial operations. In some countries, the inflexibility of nominal annual interest rates has led to highly negative real rates when inflation rises and to highly positive ones when inflation is brought down.

6. Inflation causes the performance of the financial system to deteriorate by shortening the terms of intermediary operations,

eroding the yield of financial instruments denominated in the local currency (unless steps are taken to offset its effects), by creating a need to include a risk premium in nominal interest rates due to uncertainty as to the future level of inflation, and in other ways. When inflation is very high, the financial system tends to withdraw from its proper role as a financial intermediary. If the regulations in effect so permit, the financial system tends to shift its focus away from the task of channeling funds to production sectors and towards that of offering protection against inflation.

It was observed that the region's financial systems do not appear to be conducive to longer-term forms of financing and that instruments with floating interest rates are needed to facilitate term structure arbitrage of interest rates. Floating rates do not resolve the problem of liquidity risk, however, and secondary markets and other second-tier sources of financing therefore need to be developed.

7. Experiments with selective credits indicate that such credits do not seem to affect investment decisions unless the implicit subsidies are very large. Be that as it may, the differences which may exist in some cases between the social and private rates of return would justify the existence of appropriate subsidization mechanisms.

8. With respect to the organization and efficiency of financial institutions, it was noted that some countries have opted for a specialized banking system whereas others, especially in the last few years, have chosen a multibanking scheme. In a number of cases specialized banking systems have been found to engender an overly fragmented institutional structure which does not promote efficiency.

STUDY SUMMARIES

I. SAVING

A. "AJUSTE MACROECONOMICO, DEUDA EXTERNA Y AHORRO EN LA ARGENTINA" (MACROECONOMIC ADJUSTMENT, EXTERNAL DEBT AND SAVING IN ARGENTINA), BY GUILLERMO JOSE ESCUDE AND SIMON GUERBEROFF

The study is divided into seven sections. Section one provides a general overview of the critical situation existing in the Argentine economy, particularly with respect to the stagnation of the GDP, which has shrunk in absolute terms during the decade, and the debt burden, which continues to grow despite the enormous trade surpluses achieved by the country.

Section two analyses national saving and external saving trends. National saving fell from an average of over 20 percentage points of GDP in the 1970s to just 5% of GDP in the 1986-1987 biennium, whereas external saving --i.e., the current account deficits-- rose from one percentage point in the 1970s to nearly 8% in 1987, with total investment declining by almost 10 percentage points of GDP. Section three presents a breakdown of domestic saving into its public and private components. Public-sector saving, which --although it fluctuated a great deal-- had averaged 2.5% in the 1970s, dropped to nearly 6% in 1981-1984 before it moved back up to a rate of 0% in 1985-1987.

Section four traces the historical and analytical links between Argentina's external borrowing and its financial liberalization programme, as well as discussing the socialization of the private external debt. In section five, a formal model is used to analyze the viability of the adjustment and the payability of the external debt.

Section six re-examines the concept of external saving. The authors argue that the interest actually accrued on the debt corresponds to the interest actually paid. According to this hypothesis, since the interest payments actually made are equivalent to the surplus on the trade balance, external saving is nil. They then recalculate national saving, which --since external saving is equal to zero-- is equal to investment; national saving is then broken down into the GDP minus consumption and the trade surplus. An assessment is made of the impact on saving of changes in the terms of trade and in the real exchange rate, which, together with the change in the demand for investment, are identified as being the factors responsible for the drop in saving.

In section seven this revised concept of external saving is used as a basis for breaking down national saving into the savings generated by the government and those attributable to the private sector. The authors note that following a five-year period of negative public-sector saving (1981-1985), this variable rose to more than three percentage points of GDP in 1986-1987. The latter period is characterized as being a period of orderly adjustment while the former is described as a period of chaotic adjustment.

B. "LA TASA DE AHORRO NACIONAL DE BRASIL EN LA DECADA DEL OCHENTA" (THE RATE OF NATIONAL SAVING IN BRAZIL IN THE 1980S), BY PEDRO BODIN DE MORAES

This study describes the recent trend of the saving coefficient in Brazil and discusses the sharp drop which occurred in this coefficient with the advent of the crisis, when the saving rate fell to 11.4% (in 1983) after having stood at over 19% during the 1970s. The saving rate then began to recover, regaining the level of 19% in 1987.

The author goes on to address the question of public-sector saving. He begins by describing the changes that have occurred in tax receipts; as a percentage of GDP, tax revenues, which had averaged slightly more than 26% in the 1970s, fell by more than three percentage points during the period 1983-1986. The factors cited in order to account for this decrease are the increase in inflation and the rise in the coefficient of export items which enjoy tax benefits. The government's net income has also been affected by the larger transfers made to the state governments and the private sector and by its increased external transfers. In addition, inflation has hurt public finances by eroding social security receipts and raising the cost of credit subsidies. The change in the fiscal situation has mostly, however, been a consequence of the increase in the service on the government's domestic debt, which climbed from 1.9% of GDP in 1980 to almost 11% in 1985. The author challenges the idea that the nominal service on the public debt should be registered as a transfer to the private sector, contending that it would be more accurately defined as debt amortization. He goes on to note that between 1982 and 1984 current government expenditure was reduced by two points of GDP in an attempt to cut the deficit, but that it reverted to the level of the 1970s in 1985-1986.

As a result of the above, public saving --excluding that of public enterprises-- dropped from an average of over 4% in the 1970s to around -7% in 1985-1986. These figures change, however, if the effect of interest payments is not included: public saving would then amount to 7% in the 1970s and to about 1% in 1985-1986. Public investment, however, which averaged nearly 4% of GDP in the 1970s, has been around 2% since the crisis. In summary, the decrease in public saving is attributed to the increase in inflation and the rise of real interest rates. Whereas in the 1970s public saving financed one-third of investment, in the 1980s its level was barely above zero.

As regards private saving, the author analyses its decline following the onset of the crisis in terms of the permanent income hypothesis. He concludes that the initial drop in private saving was due to the fact that the crisis was thought to be a transitory

phenomenon. When it became apparent that this was not the case, the permanent income figure was revised and the private saving coefficient rose.

C. "DETERMINANTES DEL AHORRO EN COLOMBIA, 1970-1987"
 (DETERMINANTS OF SAVING IN COLOMBIA, 1970-1987), BY
 JOSE ANTONIO OCAMPO, STEFANO FARNE AND CATALINA CRANE

The study begins with a brief review of the theoretical literature on determinants of saving, with special emphasis on the permanent income hypothesis, the Ricardian equivalence theory, the impact of interest rates, external saving and income distribution. It then goes on to summarize the main findings presented in the literature on saving in Colombia. These findings all indicate that there is an inverse relationship between (better) income distribution and saving, a high propensity to save supplementary income in the public sector, and no significant relationship between saving and interest rates. With respect to the permanent income hypothesis, the evidence as to the behavior of the private sector is not conclusive, although the behavior of the public sector would seem to provide some support for this postulate. The evidence concerning the relationship between external and domestic saving is not conclusive either, since the two variables were found to be complementary during some periods and substitutive during others.

The study also supplies information on saving by the various types of agents, i.e., households, businesses, financial institutions, the government service and public enterprises. Such a detailed breakdown is very rarely found in studies of this sort due to the statistical problems customarily posed by the information obtained on the countries. The study goes on to present new estimates of saving by the different agents, thereby furnishing further evidence to supplement that given in the first section.

The main conclusions set forth in this study are as follows:
 1) Confirmation of the influence exerted by income distribution on private saving, and hence of the importance of creating institutional mechanisms to attract savings, especially from the labor force. 2) The study finds evidence in both the private and public sectors which supports the permanent income hypothesis. 3) Taxation has a negative impact on private saving and a positive one on public saving. Private saving does not, however, appear to react to changes in the public-sector deficit. 4) The interest rate does not influence saving, but does influence the demand for assets that affect financial intermediation. 5) External saving tends to act as a substitute for domestic saving, particularly at the level of public enterprises.

Finally, the study presents an analysis of resource flows between the surplus and deficit sectors of the Colombian economy, and finds that households have ceased to transfer their surpluses directly to business enterprises through the purchase of ownership

rights, a situation which presents a new challenge to the financial system in terms of its capacity to mobilize saving.

D. "AHORRO E INVERSION BAJO RESTRICCIÓN EXTERNA Y FISCAL.
 EL CASO DE CHILE 1982-1987" (SAVING AND INVESTMENT IN
 THE PRESENCE OF EXTERNAL AND FISCAL CONSTRAINTS:
 THE CASE OF CHILE, 1982-1987), BY NICOLAS EYZAGUIRRE

In an effort to permit the identification of policies that will promote domestic saving and raise the level of investment --given the unlikelihood of any change in the situation with respect to external financing in the near future-- this study examines the reasons for the unresponsiveness of saving behavior in the region and for the favorable trend in saving observed in the case of Chile. To this end, the author constructs a model which traces the interactions among the external debt, the fiscal budget, the balance of payments, the demand for investment and the formation of savings; the model is a Keynesian one in that it assumes that saving behavior is passive and simply follows the lead of investment. Thus, the author looks to the impact of the external crisis on the determinants of investment for the causes of the region's low saving rates. He concludes that the external debt burden alters the usual macroeconomic interrelationships by modifying the determination of public investment and of effective demand and goes on to argue that, by the same token, the types of policies needed in order to promote saving have changed as well. Particular emphasis is placed on the promotion of public saving rather than the use of exchange policy --whose effect is ambiguous-- or of policies on interest rates.

The study then applies this model to the case of Chile in the 1980s, where, in sharp contrast to the rest of the region, domestic saving has risen steadily since 1984. This increase in domestic saving has permitted the country to cope with its outward-directed resource transfers and to regain lost ground in terms of its rate of investment, which by 1987-1988 was nearing the levels attained before the crisis of 1982. The author postulates that the increase in public saving, the nature of the country's exchange policy -- which promotes public saving by means of devaluations, inasmuch as the public sector has a foreign exchange surplus-- and the improvement in the terms of trade (which has been particularly beneficial for the public sector) are the main factors that account for the increase in saving and the recovery of investment.

E. "DETERMINANTES DEL AHORRO EN ECUADOR" (DETERMINANTS OF SAVING IN ECUADOR), BY LUIS IGNACIO JACOME AND ALFREDO ARIZAGA

The study starts out with a brief discussion of the scope of the analysis, which is characterized as being based on a macro- rather than a micro-economic perspective, together with an examination of the statistical problems involved in the aggregate quantification of saving.

It then goes on to describe recent economic trends in Ecuador and to discuss how the economy has been affected by erratic oil prices and natural disasters.

The third section analyses the relationship between domestic and external saving with a view to determining whether this relationship is substitutive or complementary in nature. The fourth section focuses on the links between public-sector and private-sector saving in an effort to test the Ricardian theory of equivalence.

In the fifth section of the study the authors explore the question of how the interest rate influences saving in Ecuador and discuss the statistical problems that hinder the compilation of more conclusive evidence in this connection.

In the final part of the study, the foregoing considerations are summarized and multiple regression analyses are used to test the various hypotheses discussed. The main conclusions drawn from this examination are as follows: 1) The economy's total savings can be increased by raising the rate of public-sector saving. 2) Given the present state of the art, it is not possible to formulate policy recommendations for promoting private saving with any degree of certainty as to their validity, and it therefore may be better to opt for policies that will stimulate private investment. 3) It is essential that macroeconomic balances be restored because of the adverse effect of inflation on saving and investment. 4) Sociopolitical and economic policies need to be adopted that will help create a favorable environment for investment.

F. "ESTUDIO SOBRE EL AHORRO NACIONAL PARA EL CASO DE EL SALVADOR" (STUDY ON NATIONAL SAVING IN EL SALVADOR),
BY OSCAR MENJIVAR

The study provides a brief historical overview in which two sharply contrasting periods can be distinguished. The first, from 1958 to 1978, was a highly stable period during which the economy grew fairly steadily at an annual rate of 5%, inflation was moderate, public finances were balanced, the exchange rate was stable, and the external debt did not expand, while the rate of saving averaged 14% of GDP. The second period, from 1978 to 1985, was marked by both political and economic instability.

The capital market was very poorly developed during both of these periods. There was no stock market, and the only financial savings instruments were time deposits, mortgage bonds and capitalization certificates, none of which were indexed. The interest rate was fixed in nominal terms, while the real interest rate was negative throughout most of the period of stability. In discussing the possible alternatives to financial savings, the author notes that foreign exchange was apparently not widely used as a substitute. It was not until 1978 that the errors and omissions entry on the balance of payments became significant.

As regards the determinants of real saving, income has had a positive effect, although a decline in the saving rate has been observed since 1978. Exports, and especially agricultural exports, have also had a positive effect. The tax burden appears to have a positive effect on saving as well, although the reasons for this are unclear. The interest rate has not been shown to be significant. The author concludes the study with a number of policy suggestions, which include recommendations concerning the achievement of sociopolitical stability, but he also sounds a note of warning as to the likelihood of a high level of military spending in the future. If this should prove to be the case, the resulting fiscal deficit and low rate of public saving would make it necessary to use external savings to finance investment.

The author advocates the creation of a stock market to which social insurance agencies would also have access and, finally, recommends that the tax burden be increased.

G. "LOS DETERMINANTES DEL AHORRO EN MEXICO"
(DETERMINANTS OF SAVING IN MEXICO), BY ARIEL BUIRA

The study begins with an analysis of the relationship among saving, income and interest rates. It is noted that increases in the interest rate have an ambiguous impact on saving due to the fact that the income effect and the substitution effect work in opposite directions. A saving function is estimated for the period 1965-1986 on the basis of these underlying variables, and the results yield a marginal propensity to save of around 0.25 and a positive interest-rate elasticity of saving of 0.18.

The study then turns to an examination of the role played by external saving in the Mexican economy's total saving. The traditional hypothesis that external saving complements domestic saving is tested empirically, and the study finds that in Mexico the degree of substitution between domestic and external saving has varied as economic conditions in the country have changed.

Public saving behavior from 1966 to 1986 is also analyzed. The results indicate that a complementary relationship exists between public and private saving, in contradiction of the famous Ricardian theory of equivalence, which posits that the two types of saving are perfect substitutes.

The author then examines the effect of income distribution on saving and attempts to determine whether a relationship exists between saving and the proportion of national income represented by factor payments. The results do not disprove this hypothesis, inasmuch as the propensity to save of workers (0.128) is estimated as being substantially lower than that of rentiers (0.385).

In the final portion of the study the determinants of financial saving in Mexico are evaluated. Emphasis is placed on the importance of not only the level of saving but also its composition for the process of economic development. Mexico's experience shows that during times of exchange and price stability, the role of the Mexican financial system has expanded rapidly, whereas during periods of financial repression, saving in domestic financial instruments has fallen off sharply and savings have been shifted into assets with a more certain expected rate of return, such as jewellery, foreign holdings and real estate. The study concludes that the existence of a positive real rate of return within the financial system is a necessary condition in order for saving to be channeled to its most productive uses.

H. "AHORRO, DESEQUILIBRIOS FISCALES Y EL ENDEUDAMIENTO EXTERNO: PERU 1968-1988" (SAVING, FISCAL DISEQUILIBRIA AND THE EXTERNAL DEBT: PERU, 1968-1988), BY HECTOR NEYRA, RENZO ROSSINI AND OSCAR HENDRICK

The study begins with a brief description of recent trends in the Peruvian economy and then goes on to introduce a simple accounting model of the three main sources of investment financing: private saving, public-sector saving and external saving. Empirical evidence is provided concerning the trends in these variables over the past two decades. The study also includes a methodological discussion of the way in which arrears in interest payments on the external debt and the costs of the unpaid service on that debt should be computed.

The authors then turn to an analysis of the determinants of private saving in terms of the economic cycle, the age structure of the population and the public-sector deficit. The public-sector deficit is then examined in terms of its influence on total saving. The study closes with an analysis of external saving and of borrowing in the Peruvian economy.

The study draws three main conclusions. The first is that external saving has played a highly substitutive role vis-a-vis public-sector saving, and that, furthermore, this substitutive relationship also seems to have applied in the case of private-sector saving. The second refers to the effect of the fiscal deficit on private saving; however, rather than bearing out the Ricardian equivalence hypothesis, the study's findings indicate that the public debt's effect on saving is not a neutral one. Finally, the analysis of the uses made of the external funds borrowed by the public sector shows that these resources have primarily been utilized to finance current and consumption expenditure, thereby making it more difficult to generate the foreign exchange required to pay the debt incurred for those purposes.

I. "EL AHORRO EN VENEZUELA (1970-1988)"
(SAVING IN VENEZUELA, 1970-1988), BY CRISTINA RODRIGUEZ

The study starts out by describing recent developments in the Venezuelan economy, with emphasis on the dynamics which has been set in motion as a result of the sweeping changes occasioned by the extreme variability of oil prices during the period in question. Some of the hallmarks of this situation have been the slow growth of GDP, a high rate of investment and a saving rate that, while also high, has been markedly unstable as well. The author also discusses the problem of capital flight, i.e., the inability to keep the domestic saving generated by the country within its borders, which is a characteristic trait of this economy.

The author then attempts to identify the determinants of saving in Venezuela during the period concerned. Econometric methods are applied to the analysis of income, interest rates, the link between private and public saving, and the influence of external saving on domestic saving. The results are still of a preliminary nature, however, and thus do not provide a basis from which to draw definite conclusions.

II. THE BANKING SYSTEM AND RESOURCE ALLOCATION

A. "DESINTERMEDIACION Y LIBERALIZACION FINANCIERA EN BOLIVIA" (DISINTERMEDIATION AND FINANCIAL LIBERALIZATION IN BOLIVIA), BY GONZALO AFCHA DE LA PARRA

The de-dollarization of 1982 and the hyperinflation of 1984-1985 substantially reduced the size of the Bolivian financial system. Nonetheless, large financial spreads and the effects of inflation motivated the banking system to expand its network of offices and to invest in fixed assets. The resulting burden of administrative expenses and unprofitable assets has occasioned serious adjustment problems for the banking system in recent years.

Beginning in August 1985, interest rates were deregulated and reserve requirements were lowered, but these changes were not coupled with any modification of the system for regulating and supervising the country's financial institutions. Deregulation resulted in high real interest rates which have caused the quality of portfolios to deteriorate. The lowering of reserve requirements facilitated the remonetization of the economy, but it has nonetheless remained below the levels recorded in the early 1980s. The fact that a large proportion of transactions are made in dollars has limited the demand for funds denominated in the local currency.

The emergence of problems of insolvency in a number of banks in 1987 led to reforms in the system for regulating and supervising banking institutions. These reforms restored the Superintendency of Bank's regulatory powers, set stricter standards on delinquent portfolios and outstanding interest payments, modified reserve and minimum capital requirements and proposed that limits be placed on the concentration of portfolio exposure and that information on the equity position of financial institutions be made available to the public.

B. "ESTRUCTURA DEL CREDITO PARA PROYECTOS DE INVERSION EN COLOMBIA" (THE CREDIT STRUCTURE FOR INVESTMENT PROJECTS IN COLOMBIA), BY LUIS ALBERTO ZULETA

In Colombia subsidized interest rates have not proved to be an important factor in investment decisions unless the size of the subsidy is very substantial. The geographic and sectoral priorities established by the Banco de la Republica's investment funds have also had little effect on the way in which financial institutions allocate credit.

The insolvency crisis in which a number of financial institutions were involved in 1982 was primarily a consequence of the concentration of loans in related companies. The amendments made in the country's financial laws in 1982 prohibited this practice, and the crisis itself prompted a change of attitude within the banking system whereby greater emphasis was placed on the need for a thorough evaluation of credit exposure.

The shortage of medium and long-term financing for investment projects has been coped with by resorting to the use of variable nominal interest rates for longer-term loans. This permits financial institutions to use short-term deposits to finance long-term projects, although at the cost of assuming a liquidity risk. A proposal has been made for the reinforcement of this mechanism through the creation of securities having variable interest rates and terms of over three years, with provision being made for the possibility of secondary negotiation.

C. "INTERMEDIACION FINANCIERA Y ASIGNACION DE RECURSOS EN COSTA RICA" (FINANCIAL INTERMEDIATION AND RESOURCE ALLOCATION IN COSTA RICA), BY FRANCISCO DE PAULA GUTIERREZ

The past decade saw the unregulated, unsupervised expansion of a large number of private financial associations. The high level of risk associated with their lending activity and the inconsistency between the terms of deposits and of their loans led to a chain reaction of bankruptcies during the liquidity crisis which hit the economy in the second half of 1987.

In the 1980s the country embarked upon a process of financial deregulation and financial-system reform. The credit policy became less dirigiste and more comprehensive, broadening the spectrum of financial intermediaries' portfolio decisions. The deregulation of interest rates allowed these rates to be freely determined, with the Central Bank even abandoning the practice of setting a basic rate for deposits. This policy resulted in positive real interest rates and helped to integrate the financial system by putting a stop to the fragmentation and the pressures for the diversion of funds to which it had been subject up until that time. The financial-system reform law expanded the system for supervising and auditing financial institutions, gave greater autonomy and profit incentives to the State banks, and stipulated that financial subsidies were to be paid by means of budget appropriations.

In order to strengthen the financial system and increase capital formation, a restrictive policy on current public expenditure was proposed together with a means of dealing with the losses accumulated by the Central Bank, the creation of mechanisms for attracting long-term deposits and the opening up of the stock market to the public.

D. "REGULACION Y SUPERVISION DE LA BANCA EN LA EXPERIENCIA DE LIBERALIZACION FINANCIERA EN CHILE (1974-1987)"
(REGULATION AND SUPERVISION OF THE BANKING SYSTEM WITHIN THE CONTEXT OF THE FINANCIAL LIBERALIZATION PROCESS IN CHILE, 1974-1987), BY GUNTHER HELD WITH THE COLLABORATION OF RAQUEL SZALACHMAN

The bold steps taken to decontrol credit and interest rates in 1974-1975 and the move towards the creation of a private multibanking system in 1980-1981 were not accompanied by a corresponding adjustment of the institutional mechanisms for regulating and supervising the banking system. Indeed, by 1977 the prevailing features of the situation were characteristic of a type of model which leads to the worst possible allocation of credit resources and entails the potentially greatest losses for society, i.e., complete financial liberalization coupled with insufficient regulation. Hence, rather than being a reflection of a policy of financial liberalization, Chile's experience during the period 1974-1981 constitutes a case of a loss of financial control.

This loss of control was manifested at the very outset of the financial decontrol process in the form of inordinately rapid growth rates in lending activity and abnormally high real interest rates. This explosive combination was one of the ingredients of a growth dynamics based on high-risk lending which led to the outbreak of a widespread financial crisis in the national banking system in 1981.

The reform of the banking laws, which was completed in 1986, introduced fundamental changes into the system for regulating bank solvency by stipulating that information on the banks' exposure and equity positions be made available to the general public, establishing the principle of full provisions for measured risks, setting up built-in mechanisms for regulating bank solvency which include automatic procedures for capital replenishment and the spreading of losses, as appropriate, and by blocking faltering financial institutions from shoring up their liquidity by offering higher interest rates in order to attract funds from the public. These mechanisms will no doubt help to maintain the solvency of the banking system in the future.

E. "ANALISIS DEL SISTEMA FINANCIERO ECUATORIANO"
(ANALYSIS OF THE ECUADORIAN FINANCIAL SYSTEM),
BY SANTIAGO BAYAS AND ALFREDO ARIZAGA

The following measures would help to narrow the financial spread within the Ecuadorian financial system: the reduction of legal reserve and compulsory investment requirements, greater flexibility in setting the commissions charged by banks for their services, and limitations on the investment of funds obtained from the public in assets not directly related to the investor's line of business, as in the case of over-investment in fixed assets.

The liberalization of the financial solvency which was begun in 1984 contributed to a notable deterioration in the financial standing of private banks due to the fact that it was not accompanied by a corresponding adjustment of the regulatory and supervisory system. The current trend seems to be towards a regulated banking system in which the State would guarantee deposits up to a set amount (through a deposit insurance fund) and establish regulations linking exposure with reserve and capital requirements. However, the establishment of a deposit insurance fund should be postponed until the financial system has once again been placed on a sound footing, since such a fund might otherwise be depleted in the course of the rehabilitation of certain financial institutions.

The number of banks operating in Ecuador appears to be excessive, and many of them have very high operating costs. It would therefore be advisable to raise minimum capital requirements and encourage mergers among small financial institutions. The low profit margin on which a number of banks currently operate makes it more difficult for them to attract additional inputs of capital.

The existing system for setting annual interest rates has resulted in inflexible nominal rates, and the variation in real rates has consequently been inversely proportional to inflation. The introduction of short-term nominal interest rates directly linked to the term of the operations in question would facilitate the adjustment of nominal rates to the rate of inflation and thus promote stable, moderate real interest rates.

F. "SISTEMA FINANCIERO DOMINICANO Y ASIGNACION SELECTIVA DEL CREDITO" (THE DOMINICAN FINANCIAL SYSTEM AND THE SELECTIVE ALLOCATION OF CREDIT), BY MAGDALENA LIZARDO AND ROLANDO GUZMAN

The principal effect of financial repression has been the emergence and growth of an informal financial sector whose assets now amount to as much as one-third of the regulated financial sector assets. The repression of the Dominican financial system has arisen as a consequence of the Central Bank's practice of setting interest and exchange rates at levels lagging behind inflation and of the array of differential conditions pertaining to interest rates, the terms of deposit and of loans, and capital and reserve requirements applying to the financial institutions which make up the regulated sector. Not long ago, a number of cases of insolvency arose in the informal financial sector which prompted the Central Bank to introduce new regulations and extend its supervisory functions to include this sector.

The sectoral and regional resource distribution out of the development funds established by the Central Bank is so uneven that it casts doubt upon the effectiveness of selective credit policies in promoting the development of certain activities and regions.

In order to ensure the growth of financial saving, it is essential to scale down the public sector's demand for financial resources, which has been quite large in recent years, and to allow the regulated sector to offer interest rates on deposits leading to positive real returns.

G. "REGULACION BANCARIA, CRISIS FINANCIERA Y POLITICAS
CONSECUENTES: EL CASO URUGUAYO" (BANK REGULATION, FINANCIAL
CRISES AND COHERENT POLICIES: THE CASE OF URUGUAY),
BY ARIEL BANDA

The financial system has undergone crises within the context of both closed and open economies, under both heavily regulated and unregulated banking systems. In an open economy, a greater degree of consistency among macroeconomic variables is needed, since price and volume shocks may be much greater. Opening up an economy involves changes in the economic ground rules which are not always entirely internalized by economic agents. In particular, many entrepreneurs continue to use borrowing schemes which are no longer valid due to the existence of positive real interest rates. As regards regulation, the decisive factor is the quality of the controls used to prevent the over-exposure of financial institutions and to limit their risk.

The recent establishment of a new body of policies and standards reflects a recognition of the need to regulate the system, but such regulation must be selective if it is to minimize the main sources of risk without obstructing operations. Promoting the transparency of a properly regulated market appears to be an alternative to deposit insurance. Insurance coverage could then be limited to demand deposits and small savers, whose information costs are higher.

In the case of Uruguay, restrictions applying to personnel adjustment have contributed to the prolongation of financial crises by curbing efforts to redimension financial institutions. Furthermore, judging from what has occurred during the most recent crisis situations, the Central Bank apparently does not have all the legal powers it needs to cope with such crises without adversely affecting the system of payments.

H. "EL PROCESO DE ASIGNACION DE RECURSOS FINANCIEROS EN VENEZUELA" (THE ALLOCATION OF FINANCIAL RESOURCES IN VENEZUELA), BY EFRAIN VELASQUEZ

The most conspicuous feature of the credit market in Venezuela during the past decade has been its financial repression, which originated with the establishment of inappropriate nominal interest rates and exchange rates. Although periodically adjustable nominal rates were incorporated into the system of administered interest rates in 1980 in order to compensate for expected inflation, expectations of a devaluation were so widespread that they prompted a massive flight of capital out of the country.

Indicators of the quality of financial institutions' portfolios show that it deteriorated during the 1970s, particularly in the case of commercial banks, and the government had to intervene in the affairs of some financial institutions during the period 1978-1985. During the 1980s, the purchase by the Central Bank of portions of delinquent or disputed portfolios prevented the deterioration of the liquidity position and solvency of some financial institutions.

In order to make the allocation of financial resources more efficient, positive real interest rates must be achieved, stricter limits will have to be set on the concentration of loans, and the Superintendency's auditing and supervisory powers should be strengthened.

LIST OF PARTICIPANTS

Sr. Julio Acevedo
Subgerente General
Banco de Chile
Santiago, Chile

Mr. Yilmaz Akyuz
UNCTAD
Geneva

Sr. Gonzalo Javier Afcha de la Parra
La Paz, BOLIVIA

Sr. Carlos Armando Amado Avila
Presidente SUMA, S.A.
Ciudad de Guatemala, GUATEMALA

Sr. Alfredo Nicolás Arizaga González
Banco Central del Ecuador
Quito, ECUADOR

Sr. Ariel Adolfo Banda Figueroa
Gerente, Departamento de Investigaciones
Banco Central del Uruguay
Montevideo, Uruguay

Sr. Pedro Bodin de Moraes
Pontificia Universidad Católica de Rio de Janeiro
Rio de Janeiro, Brasil

Sr. Guillermo José Escudé
Centro de Investigaciones Económicas
Instituto Torcuato di Tella
Buenos Aires, ARGENTINA

Sr. Magaly Espinosa
Jefa de la División de Estudios y Coordinación
Ministerio de Economía
Santiago, CHILE

Sr. Leonel Figueredo
Asesor Ministerio de Finanzas de Guatemala
Ciudad de Guatemala, GUATEMALA

Sr. Simón Guerberoff
Gerente de Investigaciones y Estadísticas Económicas
Banco Central de la República Argentina
Buenos Aires, ARGENTINA

Lic. Maritza Amalia Guerrero
Directora del Departamento de Estudios Económicos
Banco Central de la República Dominicana
Santo Domingo, REPUBLICA DOMINICANA

Sr. Oscar Hendrick
Banco de la Reserva del Perú
Lima, PERU

Sr. Mauricio Larrain
Asesor Vicepresidencia
Banco Santander
Santiago, CHILE

Sr. Eduardo Lizano
Presidente
Banco Central de Costa Rica
San José, COSTA RICA

Mr. Pedro Malán
Executive Director
World Bank
Washington, D.C.
U.S.A.

Sr. Manuel Marfán
CIEPLAN
Santiago, CHILE

Sr. Jorge Marshall
ILADES
Santiago, CHILE

Sr. Oscar Menjivar
Consultor Internacional de El Salvador
Santiago, CHILE

Sr. José Antonio Ocampo Gaviria
Asesor del Gobierno en Asuntos Cafeteros
Federación Nacional de Cafeteros
Bogotá, COLOMBIA

Sr. Felipe Pazos
Asesor Banco Central de Venezuela
Caracas, VENEZUELA

Sr. Guillermo Ramirez
Superintendente de Bancos e Instituciones Financieras
Santiago, CHILE

Sra. Luisa Cristina Rodríguez
Banco Central de Venezuela
Caracas, VENEZUELA

Sr. Osvaldo Rosales
ILPES
Santiago, CHILE

Sr. Francisco Rosende
Banco Central de Chile
Santiago, CHILE

Sr. Renzo Rossini
Banco de la Reserva del Perú
Lima, PERU

Sr. Oscar Trinchinetti
Federación Latinoamericana de Bancos FELABAN
Buenos Aires, ARGENTINA

Sr. Cristóbal Valdés
Gerente General
Superintendencia de Bancos e Instituciones Financieras
Santiago, CHILE

Sr. Efraín Velázquez
Consultor
Caracas, VENEZUELA

Sr. Apolinar Veloz
Asesor Económico del Senado de la República Dominicana
Santo Domingo, REPUBLICA DOMINICANA

Sr. Joaquín Vial
CIEPLAN
Santiago, CHILE

Sr. Maximiliano Vildósola
Asociación de Bancos e Instituciones Financieras
Santiago, CHILE

Sr. Luis Alberto Zuleta
Consultor
Bogotá, COLOMBIA

Participantes from UNDP:

Mr. Michael Gucovsky
Director Technical Advisory Division
New York, U.S.A.

Miss Emma Torres
Chief, Division for the Regional Programme
New York, U.S.A.

Participants from ECLAC:

Mr. Gert Rosenthal
Executive Secretary

Joint UNDP/ECLAC Project, Module II
"Development Financing"

Mr. Carlos Massad
Senior Expert

Mr. Roberto Zahler
Regional Advisor on Monetary and Financial Policy

Mr. Günther Held
Expert in Financial Affairs

Mr. Nicolás Eyzaguirre
Expert in Monetary Policy

Mrs. Raquel Szalachman
Consultant

Mr. Daniel Titelman
Consultant