Latin America
Facing the Challenges of Adjustment and Growth
Volume 8
Investment Recovery and Financing

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The Economic Development Institute
of The World Bank
1992
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Preface

In July 1990, the National Economic Management Division (EDIEM) of the World Bank's Economic Development Institute conducted a Senior Policy Seminar that examined the issues of adjustment and growth in Latin America. The three day seminar held in Caracas, Venezuela brought policymakers and academicians together to discuss their experiences in Latin America and to compare these experiences with those outside the region. The seminar was directed by Joao do Carmo Oliveira, at that time of the National Economic Management Division (EDIEM) and now in the Bank's South Central and Indian Ocean Department Country Operations Division (AF3CO). The discussion of the seminar revolved around two themes: the consensus on the main causes and consequences of the current Latin American instability and the conditions for achieving stability and equitable growth in the next decade.

The seminar was organized around sixteen papers offered in three modules:

I. A Diagnosis of the Current Situation: Divergency or Consensus?

II. Structural Adjustment and Conditions for Stable Growth

III. Restoring Policy Credibility

The two papers in the first module examined the policy consensus and divergence within the adjustment process and established a policy framework for the seminar's discussion. The ten papers of the second module addressed the topics of macroeconomic balance, public sector rationalization, trade reform, domestic economy deregulation, and the social costs of adjustment. The third module focused on the topics of debt management and investment recovery and financing. Two country cases were presented on each topic: one an insider's analysis of a Latin American country, and the second a successful country experience outside the region.

Aiming at a wider dissemination of the seminar's findings, EDIEM publishes these sixteen papers along with the rapporteur's report as EDI Working Papers. The first series relates to Module I, and reviews the diagnosis of the Latin American economies. The papers included in this section are:

The Rapporteur's Report by Eliana Cardoso.

"Adjustment and Stabilization: Review of Some Latin American Experiences" by Roberto Frenkel, and

"On the Origins and Course of Latin America's Economic Crisis" by John Williamson.
The second module on "Structural Adjustment and Conditions for Stable Growth" covers five topics and is published in sets of two papers as follows:

**Restoring Macroeconomic Balance**

"The Process of Restoring Macroeconomic Balance in Israel" by Nissan Liviatan

"The Big Bang Approach to Macro Balance in Venezuela: Why so Sudden? Why so Painful" by Ricardo Hausmann

**Structural Adjustment: Rationalizing the Public Sector**

"Structural Adjustment and Rationalization of the Public Sector in Indonesia, 1983-1988", by Erik Thorbecke

"Rationalizing the Public Sector: the Mexican Experience in 1982-1990" by Guillermo Ortiz and Carlos Noriega

**Structural Adjustment: Reforming the Trade Regime**

"Spain's Experience of Structural Adjustment: Reforming the Trade Regime" by Angel Torres

"Trade Reforms in Chile: Policy Lessons for the Nineties" by Ricardo Ffrench-Davis and Joaquin Vial

**Structural Adjustment: Deregulating the Domestic Economy**

"Deregulating the Domestic Economy: Korea's Experience in the 1980s" by Kihwan Kim

"Structural Adjustment: Internal Deregulation of the Bolivian Economy, 1985-89" by Juan L. Cariaga
Mitigating the Social Cost of Structural Adjustment Programs

"Mitigating the Social Costs of Adjustment Programs in Latin America: Issues and Policies" by Roberto Macedo

"Social Policy During Adjustment: the Poor and Beyond" by Vanessa Cartaya and Gustavo Marquez

The last module on "Restoring Policy Credibility" covers two topics and again is published in sets of two papers as follows:

Managing Domestic and External Debt

"Debt Management in Turkey: Any Lessons for Latin America" by Dani Rodrik

"Renegotiating External Debt: An Inside View of the Case of Costa Rica" by Eduardo Lizano and Silvia Charpentier

Investment Recovery and Financing

"Investment Recovery and Financing: Thailand" by Virabongsa Ramangkura

"Investment Determinants and Financing in Colombia" by Antonio Ocampo

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Investment Recovery and Financing: Thailand

Virabongsa Ramangkura
Abstract

The Thai economy depicts the newly industrialized economies of the 1980s: real growth rates of eight percent, a doubling of exports, and a minimal economic role of the government. The author outlines the underlying structure of the Thai economy and specific policy measures of the last twenty years that support this open economy approach.

The external shocks of high interest rates and oil prices of the early 1980s financially strapped the Thai economy. Trade deficits, sluggish investment and a slump in international agricultural prices compounded these events. In the first half of the decade, the government put forth a program of export diversification and devalued the exchange rate twice (1981 and 1984) in order to increase export competitiveness. In response to the devaluation and interest rate liberalization, domestic savings grew to 93 percent of investment needs.

Accompanying these events was the significant increase in Japanese and Taiwanese investment capital. The restructuring of the Thai economy led to further export orientation. Thailand's prospects for continuing this growth depends largely on its infrastructure: both physical and human capital. The author concludes that such investment must rely on equity rather than debt financing.
Introduction

The 1980s was a decade of wide-ranging instructive experiences in Thailand. The first half of the decade was overwhelmed not only by a distressing oil shock and a subsequent worldwide economic downturn but also by critical financial strains on the local front. In the second half of the decade the Thai government successfully revitalized the economy achieving double-digit growth and stabilizing domestic prices. Since the rebound in 1986-89 was largely investment-led it is worth studying how investors behaved as well as the direction of policy changes.

This paper presents a fairly comprehensive analysis of Thailand’s past experiences with regard to investment recovery and its financing. In the first section the paper highlights the salient features of the Thai economy. These include orientation of production and trade, growth path, inflation, exchange rates, and policy disciplines. The next section examines actual investment behavior during the past three decades. It also incorporates the interplay between investment stamina and growth momentum as well as political and international incidents.

The third section categorizes the significant factors that have had a decisive impact upon investment decisions. Political aspects, basic infrastructure, labor, external factors, and influential domestic economic policies are discussed. The fourth section examines in detail the economic situation between 1980 to 1985. Because this was a period of critical financial strain from a macroeconomic perspective, it is interesting to review how the Thai government was able to successfully cope with the predicament it found itself in. In the fifth section, an analysis is given on how investment was financed in the past. Also examined are changing patterns of domestic funds and foreign capital inflows.

In the final section the paper briefly reviews Thailand’s future prospects and the remaining hurdles that must be carefully dealt with in the short run. These crucial issues—including human capital, fundamental infrastructure, and capital productivity—are discussed separately. Two appendices on export promotion policies and the local capital market are presented at the end of the paper.
Predominant Characteristics

Thailand is typical of a small open economy. Her trade with international partners has long been conducted under a liberal regime. Not only have there been few non-tariff barriers to imports, but transactions were also settled under a unified and fixed exchange rate system. In recent years the government has adopted several measures designed to open up the economy even more. This is clearly evidenced by the share of exports and imports in GDP, which rose from 16-19 percent in 1965, to 20-29 percent in 1980, and 29-36 percent in 1989. The public sector assumes a relatively minor role within the Thai economy—in the 1980s government expenditures totaled less than 20 percent of GDP. In other words, the underlying doctrine is that the economy has a better chance to prosper if there is little interference with market forces.

If we examine the past records of Thailand's economic performance we can immediately detect satisfactory results in terms of growth and stability. On the growth front, the relatively rapid pace of economic expansion was fairly steady, except during the period between 1980 to 1985. The growth rate of real GDP averaged 7.6 percent per annum in 1965-73, 7.5 percent between 1973-80, 5.5 percent per annum in 1980-85, and 8.5 percent between 1985-89. On the price front the country was able to maintain a notable degree of stability. Statistics indicate that Thailand's consumer price index grew at the same rate as that of the United States and other OECD (Organization for Economic Cooperation and Development) countries. In the 1980s, after the second oil shock, the Thai consumer price index (CPI) rose, on average, only 3.2 percent per annum. Furthermore, the exchange rate for the Thai baht was almost constant. Between 1955 to 1980 the rate remained practically fixed at 20 baht per U.S. dollar; devaluation took place only in 1981 and 1984. Since then, the baht has been tied to a basket of prominent currencies, and daily exchange rates are quoted on the basis of a managed float in accordance with world trends.

Nonetheless, some painful experiences were encountered along the path to growth. The difficulties, which arose either locally or abroad, serve as valuable guidelines for policy action. The government officials or technocrats were far-sighted enough to press for legislation to limit the government's ability to pursue certain policies. These fiscal disciplines, discussed below, still remain effective and have strongly contributed to the stable expansion of the economy.

a) The Currency Act, enacted in 1958, requires that the international reserves, consisting of gold bullion and foreign exchange, be maintained at the Central Bank in an amount equivalent to at least 60 percent of the local currency in circulation. The underlying motive of this requirement is evident. It helps ensure exchange rate stability and reserves proportionate to the local currency in circulation. It also serves as a cushion against import demand. The Bank of Thailand, for reasons of prudence, never lets this ratio fall below 65 percent.

b) In contrast with the liberty given to private entrepreneurs, the government maintained strict controls on the amount of foreign financing the public sector could access. These controls were enacted in 1976 and 1977. In 1976 an act authorizing the Ministry of Finance to
commit foreign debt was passed. It mandated that the public sector's foreign loan commitments in each year not exceed 10 percent of that year's budgetary appropriations. Moreover, in all years the ratio of external public debt service payments to export earnings, or the so-called public debt service ratio, was not to exceed 9 percent. This constraint, proposed by the External Debt Committee which has responsibility for foreign debt management in the public sector, became effective in 1977 when the country started to tap funds abroad to a greater degree.

c) It is notable that government officials were discreet not only with respect to external debt exposure but also with respect to local public finances. From 1964 on a Cabinet resolution demanded that the public debt service drawn from the fiscal budget each year to service local and foreign creditors not exceed 13 percent of the government's revenues in that year. This rule helps to avoid the situation whereby one generation enjoys prosperity at the expense of the next generation, or one government shifts the burden to its successor(s). Even though this rule on debt service/revenue ratios provides a useful framework for debt scheduling in public finance, it also had some drawbacks. Thus in 1974 the Fiscal Appropriation Act explicitly spelled out that expected fiscal deficits were not to exceed 20 percent of planned expenditures. This refinement serves as a prudent guide to cash flow planning.

Investment Behavior

Gross domestic investment in Thailand has fluctuated in the past three decades. Between 1965 and 1973 the impetus to invest was strong in both the private and public sectors, driving up real investment by 9.8 percent per annum, and raising the gross domestic investment/GDP ratio from 19.8 percent in 1965 to 27 percent in 1973. Such bullish sentiments, which prevailed among local and foreign investors, were based on Thailand's relatively high growth rates and low inflation. The expectation of higher profits spurred investment demand in the form of fixed capital formation and inventory buildup.

The year 1973 marked the beginning of a period (1973-80) that was full of turmoil in both the domestic and overseas scenarios. These troubles considerably weakened investors' morale. It is therefore not surprising that the momentum of domestic investment slowed down to a large extent. The growth rate of real investment declined to 5.1 percent per annum, resulting in a decline in the gross domestic investment/GDP ratio to 26.4 percent in 1980.

Among the incidents that resulted in a decline in investor confidence was the downfall of the military government in 1973 brought on by massive student uprisings. Even though such a collapse supposedly symbolized the beginning of a democratic regime, the transition was neither smooth nor complete. It was interrupted by a series of unanticipated events overseas—the first oil price shock and the primary commodity boom in 1974. These external disturbances gave rise to a number of local political upheavals that were aggravated by tensions in Indochina and the communist insurgency of 1975. Domestic inflation started to spiral in tandem with the
rebonding economy between 1976 and 1978. By the end of the decade investor confidence was shattered not only by a collapse of the local stock market, but also by the fact that the Khmer Rouge government had been toppled by Vietnam and that China had drastically changed its political stance.

The first half of the 1980s saw a sharp downturn in the Thai economy. GDP growth declined to 5.5 percent per annum. In the midst of such a stagnant climate high inflation—fueled by the second oil price crisis and high interest rates—deterred general investors from making financial commitments. Worse yet, the cautious steps taken by the government to avert financial crisis—scaling down or postponing huge public projects and restricting credit expansion—further dampened investor confidence. Thus the average rate of growth of gross domestic investment fell to 4.2 percent between 1980-85, and investment as a share of GDP fell to 24 percent in 1985.

After the government implemented several measures to restructure the economy it was able to regain a firm footing and to regain investor confidence. This was substantiated by an acceleration in real GDP growth to 8.5 percent per annum between 1985 to 1989. One crucial factor behind such an upswing was capital formation. Gross domestic investment increased by 13.9 percent per annum between 1985-89 so that by 1989 it was 31.1 percent of GDP.

**Investment Determinants**

The historical perspective of investment behavior in Thailand as presented above demonstrates a number of significant factors that influence investment decisions. First and foremost is the political environment. When political stability was disrupted either at home or in neighboring countries, investors were less willing to risk their money. Second, investors were not only interested in market potential but also in the supporting infrastructure at investment sites. Infrastructure such as water, electricity, transportation, and telecommunications were felt to be indispensable ingredients of most targeted production. Third, a consensus among all foreign investors was that Thai labor was of good quality. Thai workers demanded relatively lower wages than did workers in the newly industrialized countries (NICs). And even though some workers lacked skills or proficiency on entry, most of them were easily trainable. Moreover, after a certain period of on-the-job training, their performance indicated higher productivity than comparable workers in most other developing countries.

Pertinent external factors or conditions are grouped together as the fourth category of investment determinants. Among these are fluctuations in the exchange rate and the imposition of trade restrictions. When the value of a foreign investor's currency surged in international markets the investor's domestic company would face difficulties in competing overseas. The company therefore tended to open its overseas markets to its foreign subsidiaries such as Thailand, where exchange rates remained fairly stable. This factor induced foreign investors to relocate their factories to Thailand. Where subsidiaries already existed in Thailand, they were
often expanded. Trade restrictions represented another powerful stimulant. Corporations in Taiwan once they had fulfilled their quotas to the United States and the European Economic Community (EEC) found it profitable to relocate their production base to Thailand—a country that was not exposed to similar trade barriers. Foreign investors were further attracted to Thailand by a variety of special privileges available from the Board of Investment.

The Board of Investment (BOI) was founded in 1960 to promote private domestic investment by extending various privileges. Examples of these privileges were as follows: a guarantee of no competition from any government agency; protection by import ban on similar goods; exemption or reduction of taxes ordinarily levied on raw materials or machinery; and an income tax holiday. Nevertheless, the BOI specified certain conditions that private investors had to satisfy before or after receiving these privileges. Those conditions were: establishing a large factory; employing a certain number of workers; achieving a minimum in export sales; and being located in outlying provinces. Other than the investment privileges offered by the BOI, the favorable economic environment also stimulated foreign investment in Thailand. These investment incentives, together with other accommodating economic policies, comprised the fifth and final category of investment determinants.

Among the five categories of investment determinants, domestic economic policies deserve the strongest attention because the other four are by and large uncontrollable, at least in the short run. Therefore, the next section will focus on the crises in the first half of the 1980s and the Thai government's role in restructuring the economy.

Crises and Restructuring

In the period between 1980 to 1985 Thailand found itself under severe financial strain, particularly with regard to its external account. Foreign exchange earnings from merchandise exports, which had surged exponentially to around 25 percent per annum in the 1970s, experienced drastic shortfalls. Export growth rates declined sharply to only 10 percent per annum in the first half of the 1980s. Meanwhile, the second oil shock was exacerbated by superfluous import spending, resulting in a drastic increase in the trade deficit/GDP ratio from roughly 6 percent in the 1970s to a historical high of 9.8 percent in 1983. Net receipts from services and transfers did not grow in tandem with the trade deficit, thus engendering an ominous rise in Thailand's relative resource gap or current account/GDP ratio. Examining how this gap was financed will reveal that the policymakers must have encountered complicated predicaments.

The first half of the 1980s witnessed two peaks in interest rates in the global money markets—one in 1981 and the other in 1984. The increased cost of borrowing discouraged the tapping of foreign capital. Worse yet, widespread speculation about an imminent devaluation of the baht, due to the growing trade deficits, created more caution among private enterprises in committing to external debt. Another cause of speculation was that the U.S. dollar, to which the baht was firmly tied, grew significantly and continuously between 1981 to 1984. Consequently, a sudden plunge in the
balance-of-payments position into a steep deficit in 1983 was not surprising. Rather striking, instead, was the record low level of the country's international reserves, which dipped to only three months worth of annual import expenses. Even more alarming was the fact that a sizable portion of this foreign exchange bufferstock was already earmarked for commitments to the IMF and swap agreements for counterpart funds in local currency. In addition, high interest rates and stagnant export earnings escalated the country's external debt service ratio beyond the critical benchmark of 20 percent in the mid-eighties.

Apart from the prevailing financial pressures, the country also suffered from sluggish investment momentum, widespread problems of low income, and rising unemployment. The economic planners and policy makers started to realize that because of the severe slump in agricultural prices on the international market, the only promising way for Thailand to revitalize its economy and rectify the painful resource gap was to reorient the structure of exports. If the export profile remained unchanged, depressed agricultural prices overseas would limit not only export earnings, but also domestic purchasing power, which was required to reinvigorate the economy. Hence, the government engaged in a number of export promotion measures, as elaborated in Appendix 1. Various campaigns, such as exhibitions or sales of locally-made products were staged for austerity purposes or to curtail import expenditures. In addition, tourism was encouraged by several methods in order to help compensate for looming trade deficits. In short, the Thai export sectors were largely revamped. Production became market-oriented or determined by market preferences. It was increasingly diversified to cover industrial as well as agro-industrial goods. More items were exclusively produced for export purposes; exports no longer served as the residual to domestic consumption, as they had in the past. This resulted in a new generation of industrialists with improved marketing strategies and productive capacity.

On the financial front the Central Bank devalued the baht twice in 1981 and 1984 before adopting a managed floating exchange rate system whereby the Central Bank specifies daily exchange rates in accordance with fluctuations in prominent currencies. A constraint was imposed on commercial bank credit expansion in order to suppress import demand. Specific priority sectors were selected for exemption from the austerity measures or were targeted for special assistance. Public sector foreign borrowing was restricted by a certain ceiling to decrease import spending as well as to restrain the growth of the external debt service. Furthermore, several steps of financial deregulation were also undertaken. These measures served as useful avenues to strengthen exporters' competitiveness overseas.

All the restructuring efforts proved to be extremely successful, as witnessed by the acceleration in real economic growth, from 3.5 percent in 1985 to 4.9 percent, 9.5 percent, 13.2 percent, and 11.6 percent in the years 1986-89 respectively. Even though parts of such a boom may be attributed to some favorable external factors—decreasing oil prices, low inflation and interest rates—it was largely the restructuring measures that led to the upswing. That is evident from the diversification of the export structure and the notable increases in the export share in GDP up from 19 percent in 1985 to 29 percent in 1989. As a result the current account deficit,
comfortably cushioned by booming tourism, fell from 5.5 percent of GDP in 1980-85 to only 1.6 percent in 1986-89. An expansion in gross domestic investment, partly due to the efforts of the Board of Investment, also served as a primary driving force in boosting the domestic economy. Lastly there was a return of direct foreign investment induced by Thailand's steady growth path, and its orderly financial/fiscal discipline. Volatile exchange rates and trade barriers in other developing countries made Thailand more attractive by comparison. It is worth noting that among flows of direct foreign investment, investment from Japan and Taiwan rose significantly, especially in the period after the restructuring efforts. Moreover, the industrial sectors captured growing attention from foreign investors, as evidenced by the classification of foreign direct investment by economic sector.

Investment Financing

Given the rather successful recovery of investment in the second half of 1980s, it is worth investigating the financing pattern in detail. In the 1970s, gross domestic savings totaled roughly 88 percent of gross domestic investment. During the critical period between 1980 to 1985, despite a surge in the interest rates, domestic savings dropped to 79 percent of investment requirements. This lower ratio is partly attributable to several negative factors, e.g., deteriorating terms of trade, speculation about devaluation, and sluggish sentiments in the local capital markets. In the second half of 1980s, domestic savings grew to 93 percent of investment needs after the government undertook several restructuring measures, such as devaluation and adoption of a floating exchange rate system, interest rate liberalization as well as other steps of financial deregulation, and inducements given to activities in the Securities Exchange of Thailand. Since domestic savings comprise such a large proportion of total investment needs in Thailand it is worth reviewing them in greater depth.

Savings in Thailand are hereby classified as those from either households, corporations, or the public sector. Over the long run, the household savings/income proportion was by and large constant—around 10 percent of GDP between 1970-88.1 Since income was the most important determinant of household savings, varying terms of trade had a considerable impact in the short run. Field surveys reveal that over the long run the variables that are more important than interest rates and taxes in determining savings are stability of income growth and the price level. Savers, especially those in provincial areas, tend to be far-sighted in the sense that their savings are usually earmarked for particular purposes such as marriage or raising children. Furthermore, they prefer to place their savings in unregulated markets rather than deposits at commercial banks (because it is easier to convert their status to borrower if needed). So rates of return are not a major factor in determining household savings, particularly in rural areas.

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1. During the same period, corporate and public savings averaged 1.9 percent and 2.5 percent of GDP, respectively. It is also notable that household savings were the most stable among the three, as the coefficient of variation (which signifies the degree of volatility) of household savings 12.4 percent was far less than those of the other two sectors: 21.5 percent and 60.9 percent, respectively).
On the other hand, corporate and public savings were very responsive to interest rate movements. On the corporate side, decreasing interest rates normally brought financial relief to most private firms because until recently private companies largely depended upon loans (as opposed to equity shares) to meet their financial needs. On the government's side, a sizable portion of fiscal appropriations was set aside to fulfill public debt service obligations. Hence, the government's capacity to save varied inversely with interest rate levels.

Before the 1980s most business enterprises relied heavily upon debt, rather than equity, financing. This can be attributed to two primary factors. At that time, the local stock market was merely a fledgling organization, and prevailing regulations on market entry—share divestiture and strong financial status—were critically stringent. Therefore, tapping funds from such a thin and fragile market represented an arduous task. Alternatively, commercial banks, which solidly dominated the arena of savings mobilization, not only had plenty of resources but were also eager to make loans if debtors proved creditworthy. It is thus not surprising to note that prior to the late 1980s, commercial banks controlled the lion's share (roughly 70 percent) of Thailand's credit markets, while the local stock exchange only transacted 3.5 percent of credit demand.

Within the total credit extension of commercial banks, overdrafts were overwhelmingly popular with clients (45% in 1985), more so than term loans (27%) or bill discounting (28%). This was perfectly rational because overdrafts yielded desirable flexibility to customers. Moreover, no commitment fees were charged on unused credit. But in 1985 the central bank stipulated restrictions on the volume of overdrafts per client, and since then utilization of this credit format has declined to approximately 30 percent of all commercial bank credit.

In the second half of the 1980s the local financial scene underwent some distinct developments. On the equity front, the local stock market scored unprecedented gains, due to several factors (details in Appendix 2). First, various foreign funds were established in stock exchanges abroad, enabling foreigners to invest in the Thai market more conveniently. Second, some tax incentives and revisions of pertinent regulations were authorized as a means of motivating both stock suppliers and investors. Third, new instruments, which were explicitly encouraged by the government, started to capture the attention of local investors. Examples of these instruments were preferred shares, convertible debentures, and warrants. The Securities Exchange of Thailand (SET) thus became a more important source of financing for investors. Between 1985-1989 contributions from SET amounted to 6.5 percent of the total credit demand, as opposed to only 3.5 percent during 1975-85.

On the debt front, large and reputable private companies began to tap funds directly by issuing their own bills of exchange or notes. In these attempts, financial intermediaries assumed only administrative and supportive roles, e.g., as paying agents and underwriters. The Thai financial markets offered both fixed-term, freely auctioned notes of commercial banks and short-term revolving credits (or the so-called NIF and RUF) to creditworthy companies. These direct borrowings remarkably
enhanced the capacity of local corporations to pursue investment. Furthermore, as the government has started to command a considerable net cash surplus since fiscal year 1988—due to improved tax collection and robust economic growth—domestic financial institutions were able to lend greater sums to the private sector. Private investors definitely benefited from the absence of the crowding-out effect.

At this juncture, it is worth noting that the format of foreign capital inflows evolved in a similar fashion to domestic savings. In the 1970s direct foreign investment amounted to 28.4 percent of all net capital inflows, while portfolio investment totaled only 4 percent. Loans and other credits, such as suppliers' credits and buyers' credits, dominated the scenario because these credits yielded fixed returns upon maturity. Returns from direct and portfolio investment were not certain, especially at a time when the stock market was not fully developed. During the critical years of 1980-85, these proportions were roughly halved, to 13.2 percent and 2 percent, (direct foreign investment and portfolio investment respectively), reflecting the strong sensitivity of foreign investors to a large number of risk factors. In the late eighties (1986-89) the share of direct foreign investment rose to 37.2 percent, while that of portfolio investment jumped to 30.6 percent. In short, the pattern of foreign financing was shifting away from credit extension toward equity-oriented approaches. These factors had a large impact on the macroeconomy in terms of employment and the likelihood of further investment.

Future Outlook and Policy Realignment

The Thai government presently finds itself confronted with a number of new and complicated tasks to be handled in the 1990s. A close look at these problems may be somewhat bewildering because they are not only multi-faceted but are also interrelated and must be dealt with according to priority. Examples of these problems are as follows: human capital, physical infrastructure, capital productivity, income distribution, quality of life, and environmental conservation. Attention will be focused on the first three items listed above.

Among all the inputs needed to attain steady economic growth, human capital is decidedly one of the most important and the one that requires delicate management. Because of its many and far-reaching repercussions, the question of human capital development will be discussed in detail. At present, with Thailand on the verge of becoming another NIC, the government is facing three dilemmas. First, since smaller families tend to be better nourished, population control has long been the focus of attention from both the general public and public agencies. However, economic growth and industrialization demands an abundant labor supply—both skilled and unskilled. In the recent past, the population growth rate in Thailand has noticeably dwindled, from 2.95 percent in 1965, to 2.25 percent in 1975, and 1.69 percent in 1989, thus creating a widely recognized shortage in the labor force.

Second, in Thailand only a small portion of graduates from primary schools proceed with secondary education. Secondary school attendance in Thailand is the lowest among the ASEAN countries. While a more
educated labor force leads to higher income-earning capacity, it also necessitates greater expenses. Government officials are still debating whether and how this dilemma should be resolved. Advocates of higher education propose that compulsory education should be increased from six to nine years. Opponents argue that such a proposal is not yet practical, given the limited supply of schooling facilities and staff. Worse yet, the question of affordability and the means to pay for higher education have not yet been resolved. Therefore, the concept of longer compulsory education is still at the experimental stage.

Third, it is fairly common for newly established firms and expanding factories, to face a shortage of skilled labor. Providing workers with full-time training is expensive—both in terms of time and money—even though their productivity will be enhanced afterwards. In this context, the government is debating whether it should undertake to organize training programs itself; encourage private parties to handle training; or leave the market untouched. One appealing option, in either case, is on-the-job or in-service training that helps economize both the time and the expenses involved and still upgrades the quality of the workers.

In 1988 and 1989, when the Thai economy consecutively attained double-digit growth, the dearth of basic infrastructure was strongly felt by almost all parties. If ongoing and future industrialization projects, such as natural gas and petrochemicals, are taken into account, the bottleneck of essential infrastructure becomes even more pronounced. Therefore, it is obvious that crucial physical infrastructure—ports, highways, electricity, waterworks, transportation, and telecommunications—need to be further developed before Thailand can be legitimately classified as the fifth NIC in Asia and the Pacific. As to who should take the main responsibility for the infrastructure and how it should be financed still has to be worked out.

Given the government's limited capacity (in terms of staff and capital) privatization offers an attractive alternative. Otherwise, public agencies may miscalculate the optimal size of investment, modes of operation, or pricing levels. Private corporations tend to be shrewd and far-sighted, and also more efficient. As for the financing pattern, large-scale infrastructure should rely more on equity than on debt financing, because the former allows greater flexibility and is more suited to public-oriented projects such as fundamental infrastructure. Moreover, funding infrastructure via securities markets will boost the capital markets.

Finally, in order to maintain, or even, improve the degree of competitiveness in international markets, the authorities must pay sufficient attention to all possible ways and means to upgrade the productivity of capital. Liberalizing capital flows across borders is one technique to improve domestic capital productivity. Thailand began this in May 1990. Curtailing bureaucratic friction is another promising channel that could help reduce unnecessary expenses and delays and thus make domestic investment more profitable.
APPENDIX 1

EXPORT PROMOTION POLICIES

In a continuous attempt to strengthen and diversify the export base of its economy, the Thai government adopted a string of incentives and measures designed to promote exports. These measures reflected the government's desire to reinforce market competition and thereby achieve better efficiency in resource allocation. Various export promotion measures were promulgated including: tax privileges, zoning, electricity cost reduction, refinancing facilities, exchange rate system, marketing assistance, international trading firms, and quality control.

Functioning as a public agency responsible for investment promotion, the Board of Investment (BOI) gave priority to firms producing exports; to firms using local inputs, those employing a large labor force, and those located outside the Bangkok vicinity. Tax exemptions granted to export-oriented projects included the following: duties and business taxes on imported raw materials, components, or reexported items; business taxes on domestic inputs; export duties; and certain deductions from taxable corporate income. Roughly 50 percent of BOI's promoted projects in the 1980s were export-oriented. Even firms that had no access to BOI could claim similar tax refunds on their export activities. Such claims were administered by the Customs Department in conjunction with the Fiscal Policy Office.

Under these tax schemes producers of exported goods were entitled to receive rebates on customs duties, business taxes, municipal taxes, excise taxes, and other taxes previously collected on a particular input. By and large, these tax rebates proved to be truly meaningful to export enterprises; otherwise, the amount of approved claims would not have quintupled from 1,966 million baht in 1983 to 10,171 million baht in 1988. Together with tax assistance, the government streamlined customs procedures and abolished unnecessary regulations so that exporters were able to expedite their processing and shipments.

Clear-cut examples of the streamlining and deregulation are the establishment of export processing zones (EPZs) and of bonded warehouses. Industrial firms located in EPZs were equipped with several privileges, such as exemptions from import duties, export duties, and business taxes. Customs officials were assigned in EPZs to monitor imports of allowable raw materials and exports of finished products. Foreign investors were permitted to own land, to bring in necessary technicians or experts, and to liberally remit foreign exchange abroad. Factories in EPZs were infrastructure in the form of transportation and telecommunications. Furthermore, the Electricity Generating Authority of Thailand allowed them to discount their electricity bills by 20 percent as long as they qualified for the Fiscal Policy Office's tax rebate scheme. Within each EPZ, bonded warehouses (BW) were located for the purpose of storing duty-free imported inputs destined for export production. BWs considerably helped export producers in limiting the burden of customs duties and storage expenses.
In addition to tax privileges, exporters were provided with concessional credit as a means of increasing their competitiveness overseas. Since 1956 the Central Bank has extended refinancing facilities (RFs) to crucial economic sectors (exports, industry, and agriculture). Typically, an eligible entrepreneur wishing to obtain low-cost funding can issue a promissory note to be discounted by his bank and rediscounted by the Central Bank, both at below-market rates. According to past records, almost all RFs (95%) were absorbed by export bills, while industrial and agricultural bills took up only paltry proportions. As the majority of beneficiaries from RFs tended to be large exporters handling traditional products, the Central Bank recently revised the rules on RFs in favor of small exporters and producers. It required that pertinent financial intermediaries offer counterpart concessional funds to their customers on a one-to-one basis.

The exchange rate was another crucial factor in export promotion. Before 1978 the Thai baht had been continually pegged to the U.S. dollar. Toward the end of 1978 the monetary authorities experimented with the European approach of daily fixing, in which all commercial banks and the central bank participated in an open market exchange forum. However, excessive speculation proved to be a major stumbling block, and the method was repealed by mid-1981. The baht was then devalued twice and solidly tied to the U.S. dollar once more. Between 1981 and 1984 the growing strength of the U.S. dollar raised the value of the baht to a precarious level from a macroeconomic viewpoint. The Thai government thus decided to devalue the baht again in November 1984 and has adopted a managed float ever since. Under the new system the baht is now linked with a basket of prominent currencies, and the Central Bank unilaterally specifies daily exchange rates in accordance with fluctuations in international money markets and its discretionary policies. The baht depreciated by approximately 40 percent against major currencies between 1984 and 1988, giving an additional competitive edge to Thai exports.

The Thai government has long recognized the importance of marketing, along with other export promotion efforts. It therefore undertook a large number of tasks to render marketing assistance to exporters. Examples of these endeavors were as follows: organization of international trade exhibitions, delegation and reception of trade missions, establishment of commercial and trade offices abroad, and intensive lobbying overseas. Another vital means of market penetration is via international trading firms. Some private trading companies actively operating in Thailand were given special privileges by the Board of Investment on the condition that their performances were satisfactory. Thus far, these trading firms have been fairly productive in lubricating export expansion with respect to both volume and variety of export items and markets overseas. The government also emphasized the need for quality control in exporting. It thus established guidelines for high-quality standards and mandated that producers of exported goods comply with such standards.

All the government measures aimed at export promotion as indicated above strongly contributed to the development of the Thai export sector. Its fundamental structure was conspicuously revamped. First, the economy was
markedly tilted toward exports. This is clearly evidenced by the fact that export earnings from merchandise exports outpaced GDP growth, and the merchandise exports/GDP ratio increased from 15 percent in the 1970s to 23 percent in the late 1980s. Second, exported items became increasingly diversified. The percentage share of exports that belonged to the manufacturing sector surged continuously, from 24 percent in the 1970s, to 39 percent in the early 1980s, to 59 percent in the 1980s. The percentage share of Thailand's eight traditional principal exports (rice, rubber, maize, sugar, tapioca products, tin, prawns, and precious stones) dropped from 63 percent, to 54 percent, and to 36 percent in the same period. Third, a key aspect of this outstanding performance was market penetration and diversification. For example, Thailand's dependence on four nearby Asian markets (Hong Kong, Singapore, Japan, and Malaysia) diminished rapidly, from 43 percent of all merchandise export sales in the 1970s to 31 percent in the 1980s. Thai exporters explored and relied more upon new markets such as the EEC and the Middle East.

The exceptional expansion and diversification that Thai exports achieved yielded a number of advantages from a macroeconomic viewpoint. Export-led growth helped resolve the intricate balance between limited domestic demand, desirable additional employment, external trade imbalance, and price stability. In other words, economic growth was achieved without forgoing other prominent objectives. Diversification of export items and markets produced a more stable stream of foreign exchange income to the country than a more clustered export structure would have done. It also reduced Thailand's vulnerability to external shocks and cyclical swings.
APPENDIX 2

LOCAL CAPITAL MARKETS

The Securities Exchange of Thailand (SET) was established in April 1975 as a forum for securities trading and a means through which domestic savings could be recycled to finance investment. The government encouraged activities in SET through various regulations. For example, capital gains earned by individual investors were exempt from ordinary income tax. Moreover, dividends from common shares were not only taxed on the same basis as regular interest income but were even accompanied by a 30 percent tax credit as an allowable deduction. The government also tempted borrowing companies to rely on the SET by offering the following privileges to listed companies: (a) a reduction in the corporate income tax from 35 percent to 30 percent, (b) tax free dividends from companies set up under Thai law, provided the total did not exceed 15 percent of the investor's total income.

If the history of the SET between 1975 and 1989 is reviewed five distinct periods are visible: early stage (1975-76), first boom (1977-78), decline (1979-81), recovery (1982-85), and second boom (1986-89). During each period the government undertook supportive measures to absorb the shock. For example, after the market experienced a crisis in 1979-80, the authorities set up a few funds to help intervene and revive the SET, such as the capital market development fund and the Krung Thai fund. Problems encountered during the crisis sparked awareness about shortcomings in the existing SET Act, and the Act was therefore amended in September 1984 to include stipulations on price rigging, insider trading, and issuance of debentures. From 1985 on the SET has attracted strong attention from both the government and domestic as well as foreign investors. The beginning of the second boom coincided with the period during which the country's external debt burden was approaching a formidable level. As expected, the government then vigorously encouraged tapping funds from the local capital market. The following section illustrates specific measures pursued to facilitate the recovery of stock trading.

The government loosened controls on foreign capital invested in domestic securities. Preauditing that was formerly required prior to repatriating funds was modified to postauditing, and brokers were permitted to process remittances. Moreover, between 1985 and 1989 twelve foreign funds, totaling US$867 million, were launched and listed in stock exchanges overseas. These funds yielded additional momentum to trading activities: they were designed to be closed-ended in order to avoid excessive volatility of capital flows. It turned out that these funds were oversubscribed abroad for several underlying reasons. First and foremost, the performance of the Thai economy after 1985-86 was definitely impressive. The real growth rate was not only accelerating but it had outstripped that of other developing countries. Political stability was maintained as well as price and exchange rate stability. Furthermore, the central government became widely recognized and admired for being able to preserve orderly fiscal plus monetary discipline and to guide the economy successfully through the second oil shock as well as the subsequent severe recession abroad. That
recognition can be firmly verified by Thailand's unusually high credit ratings given by eminent rating agencies in Japan and the United States.

Not surprisingly, all the aforementioned positive factors led the SET to unprecedented booms between 1986 and 1989. Average daily turnover grew by leaps and bounds, from 101 million baht in 1986 to 1,526 million baht in 1989. The SET index more than quadrupled, from 207 in 1986 to 879 in 1989. The number of quoted companies (listed and authorized) roughly doubled, from 93 in 1986 to 175 in 1989, while the capital mobilized by these companies jumped from 2,167 million baht in 1986 to 25,311 million baht in 1989. It should be noted that this second boom of SET activities accommodated domestic investment recovery and financing very well. Clear evidence was also provided by the Bank of Thailand's composite index on private investment, that rose from 81 in the globally dormant year of 1986 to 171 in 1988. In addition, the growing popularity and success of companies to be able to tap funds from the local capital market helped reduce their vulnerability to shocks in the money market, since their debt/equity ratios could be restrained within manageable limits.
Table 1 Structure of Gross Domestic Product and Growth Rates

<table>
<thead>
<tr>
<th>Shares of Gross Domestic Product (percent) (from current price data)</th>
<th>Growth Rates (percent per annum) (from constant price data)</th>
</tr>
</thead>
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<tr>
<td>1. Gross Domestic Product</td>
<td>100.0</td>
</tr>
<tr>
<td>• Agriculture</td>
<td>31.9</td>
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<tr>
<td>• Manufacturing</td>
<td>14.2</td>
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<tr>
<td>• Services</td>
<td>45.2</td>
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<td>2. Total Consumption</td>
<td>81.3</td>
</tr>
<tr>
<td>• Private</td>
<td>71.7</td>
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<tr>
<td>• Public</td>
<td>9.7</td>
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<td>3. Gross Domestic Investment*</td>
<td>19.8</td>
</tr>
<tr>
<td>• Gross Fixed Capital Formation</td>
<td>18.8</td>
</tr>
<tr>
<td>• Private</td>
<td>13.3</td>
</tr>
<tr>
<td>• Public</td>
<td>5.5</td>
</tr>
<tr>
<td>• Change in Stocks</td>
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<td>4. Gross Domestic Savings</td>
<td>18.6</td>
</tr>
<tr>
<td>• Household</td>
<td>n.a.</td>
</tr>
<tr>
<td>• Business</td>
<td>n.a.</td>
</tr>
<tr>
<td>• Public</td>
<td>n.a.</td>
</tr>
<tr>
<td>5. External Account</td>
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<tr>
<td>• Merchandise Exports</td>
<td>15.8</td>
</tr>
<tr>
<td>• Merchandise Imports</td>
<td>18.8</td>
</tr>
<tr>
<td>• Trade Deficits</td>
<td>-3.2</td>
</tr>
<tr>
<td>• Net Services and Transfers</td>
<td>2.8</td>
</tr>
<tr>
<td>• Current Account</td>
<td>-0.4</td>
</tr>
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(Table 2 cont’d.)

- **Net Capital Inflows**
  - (as percent of Net Capital Inflow)
    - Direct investment
      - 42.6
      - 54.6
      - 7.5
      - 8.5
      - 60.6
      - 28.3
    - Portfolio Investment
      - 0.9
      - 7.2
      - 2.0
      - 7.5
      - 22.2
      - 24.1
    - Loan and Others
      - 46.5
      - 38.2
      - 90.4
      - 84.0
      - 17.2
      - 41.7

5. **Inflation**

- Thailand
  - 3.0
  - 9.3
  - 7.4
  - 3.2
- U.S.A.
  - 4.1
  - 8.9
  - 8.9
  - 3.8
- OECD
  - 4.6
  - 9.6
  - 7.2
  - 3.6

7. **Population**

<p>|       | 3.1 | 3.6 | 2.0 | 1.8 |
|--------------------------|------|------|------|------|------|------|------|------|------|
| Investment Financing     | 100.0| 100.0| 100.0| 100.0| 100.0| 100.0| 100.0| 100.0| 100.0|
| 1. Gross Domestic Savings|      |      |      |      |      |      |      |      |      |
| - Household              | 55.9 | 54.8 | 55.3 | 48.6 | 44.2 | 40.5 | 40.0 | 40.7 | 36.1 |
| - Business               | 44.6 | 42.0 | 47.9 | 56.2 | 47.2 | 44.7 | 45.0 | 40.7 | 42.4 |
| - Public                 | 7.5  | -0.4 | 10.1 | 8.9  | 5.6  | 8.1  | 16.4 | 28.3 | 30.5 |
| 2. Foreign Savings       | 27.5 | 11.6 | 28.0 | 20.1 | 16.6 | -2.9 | 2.3  | 9.5  | 10.4 |
| (as percent of foreign savings) |      |      |      |      |      |      |      |      |      |
| - Direct Investment      | 11.5 | 11.3 | 23.6 | 16.5 | 8.5  | 60.6 | 22.3 | 37.7 | 28.3 |
| - Portfolio Investment   | 0.1  | 1.6  | 1.0  | -0.2 | 7.5  | 22.2 | 60.9 | 15.4 | 24.1 |</p>
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<th>- Loan and Others</th>
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<th>84.0</th>
<th>17.2</th>
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<th>47.6</th>
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<td>21.9</td>
<td>23.9</td>
<td>29.6</td>
<td>26.9</td>
<td>34.85</td>
<td>44.14</td>
<td>36.14</td>
<td>51.65</td>
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<td>- U.S.A.</td>
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<td>37.4</td>
<td>19.8</td>
<td>15.4</td>
<td>38.7</td>
<td>54.24</td>
<td>18.73</td>
<td>20.08</td>
<td>11.25</td>
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<td>- Taiwan</td>
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<td>0.1</td>
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<td>13.84</td>
<td>8.80</td>
<td>10.81</td>
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<td>- Singapore</td>
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<td>16.9</td>
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<td>-25.49</td>
<td>5.84</td>
<td>5.92</td>
<td>5.38</td>
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<tr>
<td>- Others</td>
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<td>17.9</td>
<td>51.5</td>
<td>34.2</td>
<td>14.4</td>
<td>17.78</td>
<td>15.54</td>
<td>21.46</td>
<td>9.69</td>
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<td>- Agriculture</td>
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<td>0.7</td>
<td>1.75</td>
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<td>- Industry</td>
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<td>28.4</td>
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<td>- Mining &amp; Quarrying</td>
<td>15.39</td>
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<td>27.28</td>
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### Table 4  Commerical Bank vs. Equity Financing

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) Credits Extended by 12 Financial Inst.*</th>
<th>(2) Commercial Banks</th>
<th>(3) Capital Mobilized via SET **</th>
<th>(4) Total</th>
<th>Percentage Distribution</th>
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<td></td>
<td>Unit: Billion Baht</td>
<td>Unit: Percent</td>
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<tr>
<td>1975</td>
<td>21.8</td>
<td>13.6</td>
<td>0.1</td>
<td>21.9</td>
<td>99.5 62.2 0.5 100</td>
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<td>1976</td>
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<td>13.8</td>
<td>0.3</td>
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<td>26.6</td>
<td>0.9</td>
<td>40.3</td>
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<td>2.9</td>
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<td>1980</td>
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<td>1981</td>
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<td>1985</td>
<td>58.3</td>
<td>46.0</td>
<td>4.1</td>
<td>62.4</td>
<td>93.4 73.7 6.6 100</td>
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<td>1986</td>
<td>33.9</td>
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<td>36.0</td>
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<td>1987</td>
<td>152.1</td>
<td>129.2</td>
<td>14.5</td>
<td>166.6</td>
<td>91.3 77.5 6.7 100</td>
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<tr>
<td>1988</td>
<td>235.6</td>
<td>180.6</td>
<td>10.9</td>
<td>246.5</td>
<td>95.6 73.3 4.4 100</td>
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<td>1989</td>
<td>363.8</td>
<td>257.1</td>
<td>25.3</td>
<td>389.1</td>
<td>93.5 66.1 6.5 100</td>
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</tbody>
</table>

### Notes:
- Securities Exchange of Thailand.
Investment Determinants and Financing in Colombia

Antonio Ocampo
Abstract

The author examines the determinants of investment in Colombia and identifies relationships that undermine the traditional analysis of financial deepening and investment. The major determinant of investment is domestic demand. Other determinants are inelasticity of investment demand to prices of capital goods, import rationing, internal funds, and long-term credit availability. Data from a Colombian entrepreneurial survey support these findings. Availability of technological innovation and managerial capacities are other incentives cited as encouraging investment.

Having established the major determinants of investment demand, the author reviews investment financing. In distinguishing these financing sources, forced saving by households is the major source of net lending while debt has been a secondary source. Moreover, Colombian studies find that household savings, unlike financial savings, are not sensitive to interest rates. Such findings question the traditional relationship of financial deepening and investment. In conclusion the paper examines these findings in light of the open economy objectives of the Colombian economy in the 1990s.
The return to long-term growth has become the standard demand of developing countries following the painful (and, in some cases, incomplete) adjustment to the debt crisis in the 1980s. This demand has given rise to a growing literature on the transition from stabilization to growth. It is generally recognized that investment plays a leading role in this process. The analysis of its determinants and financing has, thus, become a major focus of attention in recent years.

This paper analyzes these issues in relation to Colombia. It is divided into five sections. The first briefly reviews investment and savings trends in the 1970s and 1980s. The second summarizes available econometric evidence on the determinants of investment. The third considers the perception of entrepreneurs on incentives and obstacles to investment in recent years. The fourth analyzes the financial aspects of investment. Finally, the fifth draws some policy conclusions.

**Trends in Investment and Savings**

Figure 1 summarizes the evolution of investment and savings in Colombia over the past two decades. The real fixed-capital investment ratio has undergone three phases during this period. During the 1970s, a downward trend was clearly perceivable. This was followed by an investment boom in the early 1980s. Finally, since 1983, real fixed-capital formation has weakened again, reaching a two-decade low in 1989 (Figure 1—A).

Such trends do not mirror the evolution of economic activity. Indeed, throughout the 1970s, the downward trend of the investment ratio coincided with rapid economic growth—faster, at least than in the first half of the decade (6.5 percent in 1970-74 vs. 4.8 percent in 1974-80). In contrast, the rising investment ratio in the early 1980s coincided with the strongest recession of the post-war period (economic growth fell to 1.6 percent in 1980-83). Adjustment policies undertaken to face the crisis were reflected in a sharp fall in the investment ratio in 1983-85, even though economic growth actually increased with respect to previous years to 3.2 percent. The return to moderate rates of growth in recent years (4.5 percent

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Senior Researcher, Fedesarrollo, Bogotá, Colombia, paper presented in the World Bank conference "Latin America: Facing the Challenges of Adjustment and Growth" held at IESA, Caracas, July 19-22.
Investment Determinants and Financing in Colombia

in 1985-89) has not reversed the downward trend of the real investment ratio.

Due to significant variations in the relative price of capital goods (Figure 1—B), the evolution of investment ratios estimated at constant and current prices show different patterns, particularly in the 1980s (Figure 1—A). Up to 1981, relative prices accentuated the effects of fluctuations in the real investment ratio on its nominal counterpart. Since then, the two investment ratios have actually moved in opposite directions. Thus, in 1982-83, the nominal ratio declined, despite the increase in its real counterpart. More importantly, since 1984, as the real investment ratio has tended to fall, the nominal ratio has shown the opposite trend, reflecting the dramatic increase in the relative price of capital goods.

Given the high import content of machinery and equipment, variations in the relative price of capital goods have been largely associated with exchange rate policies. Thus, the fall in the relative price of such goods in the mid 1970s and, again, in the early 1980s are associated with real appreciation of the peso. But the rapid increase in the relative price of capital goods in recent years has been determined by a significant real devaluation of the domestic currency.

The evolution of the savings ratio also shows major differences with respect to investment (Figure 1—C). This fact is consistent with the sharp variations in the current account balance that the Colombian economy experienced in the 1970s and 1980s with the rest of the world. Thus, the savings ratio increased sharply in 1971-77, as the investment ratio fell. The economy thus shifted from a deficit into a surplus in the current account. The investment boom of the early 1980s, however, coincided with a weakening savings effort and swelling external deficits. Finally, expanding savings in the mid-1980s were reflected in improvements in the external account rather than in a parallel rise in the investment ratio.

From the point of view of economic policy, this independence—and even opposite movement—of savings and investment in an open economy places serious doubts on the usual recommendation to increase savings as a way to encourage investment. Given the experience of the past two decades, unless simultaneous policies to increase the latter are undertaken, such policy may only lead to an (undesired) improvement in the balance of payments.

Aggregate savings and investment do however hide the contrasting performance of such variables according to the economic agents involved. As Figure 2 indicates, weakening investment in the 1970s reflected the behavior of private sector firms. In contrast, its evolution in the 1980s is closely associated with public-sector investment, particularly with state enterprises. The latter explain, in fact, the counter-cyclical pattern of the global investment ratio. Capital accumulation by private firms in the 1980s shows a more traditional pro-cyclical behavior: reduction in the first half
FIGURE 1
AGGREGATE INVESTMENT, AND SAVINGS RATES

A. Fixed capital investment rates

B. Relative price of capital goods (1990=100)

C. Aggregate investment and savings rates (current prices)
of the decade and recovery in 1987-88, though this recovery was interrupted in 1989.¹

Increased savings in the 1970s were associated with both households and the public sector. The latter determined the sharp increase in aggregate savings in the first half of the 1980s. In more recent years, the strong performance of savings by private and public sector firms has been the crucial factor behind the stabilization of the global savings ratio at fairly high levels.

As Figure 2 indicates, both the public and private sectors are responsible for the deficits. The government has also generated deficits, but overall it shows cyclical rather than structural imbalances. On the other hand, the evolution of savings and investment by public and private sector firms has led to very different trends in net financial requirements. The net financial requirements of private firms indicate a declining trend and have, in fact, disappeared in recent years. But the demand of public sector enterprises increased dramatically from the mid-1970s to the mid-1980s, although since then, their demand has also decreased.

Determinants of Investment: Econometric Evidence

A brief survey of the literature

Existing econometric evidence indicates that domestic demand is the major determinant of investment in Colombia. Indeed, simple accelerator models, by themselves, explain a large proportion of the variance of manufacturing investment (Bilsborrow, 1968; Ospina, 1976; Rubio, 1983; Chica, 1983, 1984-85, and 1988). More generally, the global demand for investment and that for machinery and equipment has been shown to be closely associated with aggregate domestic demand, with an elasticity of about one or greater. But evidence suggests that the demand for private construction is income-inelastic (Reyes et al., 1978; Reyes, 1985; Martínez et al., 1982; Ocampo et al., 1985).

These studies also indicate that the demand for investment in Colombia is sensitive to, but inelastic to changes in the relative price of capital goods. Recent estimates indicate that both private and public sector investment are price-inelastic, with a global price elasticity of -0.7 in 1970-86 (Ocampo and Cranc, 1988). Given the strong association between the relative price of machinery and equipment and the real exchange rate, Carrizosa (1985) found that a real devaluation tends to reduce

¹ See "Notas Editoriales," Revista del Banco de la República, October 1989, table 2. This table indicates that real private investment increased by 11.6 percent in 1988 vs. 8.5 percent for total investment. On the other hand, Fedesarrollo's Entrepreneurial Survey indicates that manufacturing investment was very dynamic in 1987 and has weakened since. According to preliminary estimates by Banco de la República, in 1989 real investment fell by 1.5 percent. The demand for imported capital goods by the private sector (as reflected in import registrations) increased by only 2.9 percent in current dollars and private construction activity fell. This data thus indicates that the upward trend in the share of private investment most probably ceased.
Investment Determinants and Financing in Colombia
manufacturing investment. Reyes et al. (1978) and Reyes (1985) also found that the demand for machinery and equipment is sensitive but inelastic to the relative prices of modern goods and services produced in the economy.

As nominal rather than real ratios are relevant to determine the savings effort necessary to finance investment, the price-elasticity of the demand for capital goods has major policy implications. In particular, it indicates that domestic savings must increase following a real devaluation to finance falling real investment. If the authorities wish to increase the investment ratio as they devalue the currency, domestic savings must increase in both national and real terms. A real appreciation tends to reduce the savings effort necessary to finance capital accumulation.

Regarding the effect of real wages, results are mixed. The previously mentioned studies by Reyes found the expected substitution effect in the demand for machinery and equipment, but Rubio (1983) got the opposite result for the manufacturing sector. According to Rubio, this reflects the positive association between aggregate demand and real wages, which may overshadow the substitution effect. Finally, Martínez et al. (1982) also found that the demand for housing is inelastic to prices and rents, whereas its supply is sensitive to the costs of production but not to the final price of such goods.

Existing studies also demonstrate the close association between direct import controls and investment. They indicate, in particular, that import rationing has tended to discriminate against the imports of consumer and capital goods, as a way to maintain a regular supply of intermediate goods when the economy faces severe foreign exchange bottlenecks. Recent estimates for the period 1970-86 indicate that periods of harsh rationing reduce investment in machinery and equipment by some 1 percent of GDP, with no effect on total capital accumulation (Ocampo and Crane, 1988).

With respect to the role played by financial aspects, Bilsborrow and Chica, in the studies already quoted, found a close association between investment and the internal funds of manufacturing firms (retained earnings and depreciation funds). Chica also found a positive association between manufacturing investment and long-term credit availability. But Rubio (1983) found that relation to be statistically weak. Reyes et al. (1978), Martínez et al. (1982), Ocampo et al. (1985), and Ocampo and Crane (1988) also found an association between domestic financing and private construction. Carrizosa et al. (1982) have, however, disputed this association if sectoral rather than global credit availability is used as the explanatory variable.

External financing has generally been found to have a strong effect on public-sector investment. Moreover, early analyses of this association indicates that external lending complements public sector savings (Perry et al., 1981; Londoño and Perry, 1985; Perry and Cárdenas, 1985; Ocampo et al., 1985). Gómez and Thoumi (1986) also found a similar result, but disputed the causal link implicit in the aforementioned studies. Ocampo (1988) and

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2 This result may be regarded as one of the contractionary effects of devaluation in Colombia. For a similar result for previous decades, see Díaz-Alejandro (1976, Ch. 8) and Giraldo and Prada (1978).
Ocampo and Crane (1988) confirmed the close link between external financing and public-sector investment and found a similar relation between private and total investment in the 1970s and 1980s. However, contrary to the earlier studies, they also found that external financing tends to substitute rather than complement domestic savings, particularly by the public sector.

In contrast to the relation between credit availability and investment, existing studies have generally found the effects of real interest rates on investment to be statistically insignificant (see Bilsborrow, 1968, and Carrizosa, 1985, with respect to manufacturing investment, and Ocampo et al., 1985 and Ocampo and Crane, 1988, with respect to the demand for the different National Accounts aggregates). Rubio (1983) and Carrizosa (1982) have found statistically significant but quantitatively weak effects of real interest rates on manufacturing investment and private construction.

The relative incentives for debt vs. equity financing generated by the tax system has been abundantly explored in the literature (Junguito, 1979; Perry and Cárdenas, 1986; Carrizosa, 1986; Orozco, 1988; McLure et al., 1988). In recent years, this discussion led to a series of tax reforms aimed at eliminating this distortion. More generally, Carrizosa (1985) has explored the effects of the tax system on the level of investment. This study generally failed to find any association between manufacturing investment, taxes and fiscal incentives. This result confirms the conclusions of previous analyses of tax incentives in Colombia (Perry and Cárdenas, 1986).

Some caveats

Irrespective of the explanatory power of existing econometric studies, they do not capture some of the most important trends in investment in Colombia in recent decades. In particular, they hardly explain the downward trend in the ratio of capital accumulation by private firms in the 1970s and the opposite trend in investment by public-sector enterprises later in the process.

A simple crowding-out hypothesis is obviously suggested by these opposite trends. However, such interpretation can hardly be pushed too far, as the deterioration of investment by private firms clearly preceded the rapid growth of capital accumulation by public-sector enterprises. Moreover, when the latter did increase, it was externally financed. It thus led to a deterioration of the external accounts rather than a depression of private-sector investment. The latter did decrease in the early 1980s, but it was probably as a result of domestic recession.

The structural transformations that the economy underwent during this period probably go a longer way to explain this basic change in the composition of investment. On the one hand, the import-substitution policy that the economy followed from the 1930s to the 1960s was abandoned in the mid-1970s. The reversal of these policies was accentuated by the "Dutch-disease" effects of the coffee bonanza in the second half of the 1970s and the external financing boom that followed in the early 1980s, and which had an adverse effect on the production of tradeables, particularly
manufacturing goods. On the other hand, when oil prices increased in the mid 1970s, the Colombian economy went from a net exporter to a net importer of petroleum and its derivatives. This led the government to undertake major efforts to reverse this trend.

Given the large share of industrial firms in private-sector investment, the interruption of import substitution policies—with no counterpart expansion in manufacturing exports and even a slowdown in the growth of domestic aggregate demand—led to a slowdown in the growth of industrial production and capital accumulation.3 Simultaneously, public-sector enterprises were given a leading role in energy policy, in partnership with multinationals in oil and coal. The joint impact of these transformations was, thus, a structural change in the relative role played by private and public-sector firms in capital accumulation.

Should this be interpreted to mean that public and private-sector investment are not interrelated? Unfortunately, these connections have not been explored in the literature. Simple evidence indicates that crowding-in and crowding-out effects run in opposite directions in the 1980s, with unclear effects on aggregate capital accumulation. Public sector investment may thus have crowded-in foreign investment in oil and coal (crowding-in is when public sector investment acts as a stimulant or complements private sector investment). Import rationing on the other hand (rather than domestic financial links) may have generated a crowding-out effect on public and private investment in the mid-1980s. Finally, but not least important, it has generally been recognized that there is a significant complementarity between public sector investment in the Colombian ports and private investment in export-oriented activities. The low priority given to investment in ports may thus be responsible for the lack of dynamism of this type of private investment in recent years.

Determinants of Investment: Evidence from the Entrepreneurial Surveys

Entrepreneurial surveys provide additional information on the determinants of investment in Colombia. Fedesarrollo has undertaken qualitative surveys of manufacturing performance and expectations on a monthly basis since September, 1979. These surveys are highly representative of medium and large-size manufacturing firms. In January and March, 1988, specific questionnaires on investment climate were included. They were answered by some 200 firms. Since December of that year, opinions on investment conditions have been regularly surveyed. Between 350 and 400 firms regularly answer these questionnaires.4

3. For an extension of this hypothesis, see Ocampo and Reveiz (1980). Note that it is not inconsistent with the incentives created by the real appreciation of the peso and the capital investment boom of the late 1970s and early 1980s, which ran in the opposite direction.
4. Information provided by these surveys is published regularly in Indicadores de la actividad productiva. They have been analyzed by Fedesarrollo (1988), Ocampo (1989) and, more regularly, by the former institution in its quarterly publication, Coyuntura Economica. The dates indicated in this paragraph and below refer to the month in which the questionnaires were distributed.
These surveys tend to confirm the central role played by domestic demand in the investment process. According to the entrepreneurs, a strong domestic demand was the major incentive to invest in 1987, but also the major obstacle in some sectors (table 1).

Table 1. Major Incentives and Obstacles to Manufacturing Investment

(percent of firms responding to the survey)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Incentives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong domestic demand</td>
<td>45</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Export incentives</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Protection of the domestic market</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Facility to import machinery</td>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Favorable price/cost relation</td>
<td>9</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Availability of domestic financing</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Availability of external financing</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Availability of technological innovations</td>
<td>7</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Managerial capacity to implement transformations within the firm</td>
<td>11</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Tax incentives</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Obstacles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak domestic demand</td>
<td>21</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>Lack of adequate export incentives</td>
<td>3</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Inadequate protection of the domestic market</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Restrictions to import machinery</td>
<td>10</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Unfavorable price/cost relation</td>
<td>12</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Scarcity of inputs</td>
<td>n.d.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Lack of adequate personnel</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Lack of domestic financing</td>
<td>9</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Lack of external financing</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lack of internal funds of the firm</td>
<td>15</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>High financial costs</td>
<td>8</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Lack of technological innovations</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Managerial obstacles to implement transformations</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>High taxes</td>
<td>14</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>


Note: Surveys undertaken in January of each year. The question regarding incentives refers to investment conditions during the previous year—that regarding obstacles to current conditions.

Source: Fedesarrollo, Entrepreneurial Survey.

5. As the note to table 2 indicates, the question in the survey regarding incentives refers to investment conditions during the previous year, whereas the question regarding obstacles refers to current conditions.
Since 1987, domestic demand as an incentive has weakened considerably and has increasingly been seen as an obstacle. This view is consistent with the evolution of manufacturing production in recent years: rapid expansion in 1986 and 1987, followed by a significant slowdown in 1988 and 1989. When asked in one of the 1988 surveys to rank the most important factors in investment decision making (independently of short term macro conditions), the entrepreneurs ranked the level of demand first, followed by the stability of the economy (Ocampo, 1989). Curiously enough, profits only came in third place, followed by the socio-political climate.

Financial factors are of course also important to entrepreneurs. The availability of internal funds of the firm clearly emerges as the most important financial factor, both on the positive and the negative side. However, in this case, the balance has moved gradually in recent years in the positive direction. This is, again, consistent with recent trends in the industrial sector, as the manufacturing slowdown has coincided with a strong profit performance. Financial costs have also shown up as an increasingly adverse factor. The availability of domestic financing is another factor mentioned by many firms, although viewed more as an obstacle than an incentive, whereas the availability of external financing has played no role in the recent investment process.

Factors associated with the external sector are viewed by entrepreneurs as much less important than domestic demand and financing. Import rationing has been the most important element and has moved in a positive direction in recent years. Export incentives have risen in importance, both as a favorable and an unfavorable factor—although more strongly in the second case—but remain a secondary factor in the investment process.

The availability of technological innovations and, particularly, the managerial capacity to implement them also come out in the surveys as important aspects of the investment process, particularly on the positive side. Indeed, as demand deteriorated, they became the major incentive to invest in 1989. On the other hand, high taxes were regarded in 1988 as an important obstacle to investment. A detailed look at that year's questionnaires indicates, however, that entrepreneurs were referring to import tariffs on machinery and equipment rather than on profits—i.e., on those taxes that affect the relative price of capital goods (Ocampo, 1989). The favorable or unfavorable price/cost relation is also mentioned by some firms, but its net effects are unclear.

Since November, 1988, the survey has included quarterly questions on whether investment plans have or have not been fulfilled, and on factors that have affected this result. The answer to these questions indicates that about 60 percent of the firms have fulfilled their plans, whereas the rest have delayed them, more for voluntary than involuntary reasons. Among the former, weakening domestic demand comes out, again, as the most important factor—answered on the average by a third of the firms that voluntarily delayed their investment projects followed by unexpected costs increases, including financial costs. Among factors that lead to involuntary delays, financial conditions were felt to be the most important factor—with an equal weight being given to internal funds vs. domestic financing—followed by government regulations. Among the latter, difficulties to
import the equipment are more important than other licensing requirements.

Finally, the survey included a question on the socio-political climate for investment in March 1988, and has repeated it on a quarterly basis since December of that year. Answers to this question indicate that entrepreneurs have regarded socio-political conditions as unfavorable to investment. In June 1990, 55 percent of entrepreneurs characterized such climate as adverse, 37 percent as neutral and only 8 percent as favorable. Moreover, such evaluation has been consistently much poorer than that related to the economic climate for investment.

The evaluation of the socio-political climate shows a strong cyclical pattern rather than a trend over the past three years. It deteriorated in 1988, improved in the first semester of 1989, deteriorated sharply following the assassination of the presidential candidate Luis Carlos Galan in August 1989, but improved significantly thereafter, particularly as a result of government's major victories in the narcotraffic war in late 1989 and early 1990.

In March 1988, the economic climate was seen to be very good. It clearly prevailed at that time over the adverse evaluation of the socio-political climate (as the very optimistic plans for that year indicated). Since then, investment has weakened, but most probably as a result of economic conditions. Indeed, the deteriorating but still fair performance of private investment in recent years has taken place despite a consistent adverse evaluation of socio-political conditions.

The evidence provided by the entrepreneurial surveys thus confirm the central role that econometric estimates have given to domestic demand and the internal funds of the firms in the investment process. Relative prices, the availability of domestic financing and import rationing also come out in the surveys as important determinants of capital accumulation—the first of these factors only indirectly, through the emphasis on import tariffs. Nonetheless, contrary to the econometric evidence, high interest rates have been viewed by entrepreneurs as a growing obstacle in the recent investment process. The surveys also provide additional information on investment determinants. Most important in this regard is the importance that entrepreneurs place on the stability of economic activity, the availability of technological innovations and the managerial capacity to implement them as incentives to invest, as well as the evidence of resilience of investment to the socio-political violence that the country has experienced in recent years.

Financial Aspects of Investment

The financial structure of households and firms

Historical analyses indicate that equity was the major source of corporate financing in Colombia in the 1940s. Since then, it has experienced a steady decline, with major falls concentrated in the early 1950s, mid-1960s and mid-1970s. Since the 1950s, debt and internal funds have
therefore been the major sources of financing, with their relative weight changing over time. Internal funds played the leading role in the 1950s, mid-1960s, and in recent years (Pieschacon, 1973; Junguito and Castro, 1978; Chica, 1984-85; Restrepo, 1984-85; Fedesarrollo, 1988).

The information provided by the Financial and National Accounts since 1970 gives a more detailed picture of financial transactions in the Colombian economy and their relation to capital accumulation. Table 2 summarizes major changes in the financial structure of households and firms.

Table 2. Financial Structure of Households and Firms, 1970-1986
(% of GDP at current prices)

<table>
<thead>
<tr>
<th></th>
<th>Household</th>
<th>Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock share issues</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Long-term loans</td>
<td>1.78</td>
<td>1.31</td>
</tr>
<tr>
<td>Short-term loans</td>
<td>0.80</td>
<td>0.75</td>
</tr>
<tr>
<td>Labor Liabilities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net lending to other economic agents</td>
<td>3.01</td>
<td>4.12</td>
</tr>
<tr>
<td>Demand for money</td>
<td>1.32</td>
<td>1.77</td>
</tr>
<tr>
<td>Uses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest-bearing assets</td>
<td>1.14</td>
<td>0.79</td>
</tr>
<tr>
<td>Purchase of stock shares</td>
<td>2.08</td>
<td>1.16</td>
</tr>
<tr>
<td>Net commercial lending</td>
<td>-0.18</td>
<td>0.33</td>
</tr>
<tr>
<td>Labor assets</td>
<td>1.04</td>
<td>1.20</td>
</tr>
<tr>
<td>Other</td>
<td>1.23</td>
<td>1.13</td>
</tr>
<tr>
<td>Available for investment</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5.59</td>
<td>6.18</td>
</tr>
</tbody>
</table>

Source: Banco de la República financial accounts. All figures refer to flows.

From the point of view of the former, two features stand out. First, the demand for stock shares fell considerably in the mid-1970s and has not recovered since.6 The demand for interest-bearing assets shows an opposite trend, indicating that they have been the major substitute for stock shares in household portfolios. The second feature is the crucial role played in the

6. A more disaggregated view indicates that, during the past fifteen years, households have been net suppliers of corporate stock shares, but have continued to supply equity funds to limited-liability companies.
financial transactions of households by two forms of forced savings: the (flow) demand for money associated with the inflation tax, and labor assets (pension and severance payments funds). These two forms of forced savings have made up 70-80 percent of net lending by households to other economic agents (except in 1980-82 when this proportion fell to 52 percent).

Table 3. Stock Issues and Gross Savings as a Proportion of Gross Investment of Firms

<table>
<thead>
<tr>
<th></th>
<th>Private sector firms</th>
<th>Public sector firms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Stock share issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970-74</td>
<td>n.a.</td>
<td>n.a.</td>
<td>38.4</td>
</tr>
<tr>
<td>1975-79</td>
<td>37.0</td>
<td>9.8</td>
<td>27.8</td>
</tr>
<tr>
<td>1980-82</td>
<td>44.3</td>
<td>14.1</td>
<td>32.3</td>
</tr>
<tr>
<td>1982-83</td>
<td>45.6</td>
<td>11.6</td>
<td>29.0</td>
</tr>
<tr>
<td>B. Stock share issues + gross savings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970-74</td>
<td>n.a.</td>
<td>n.a.</td>
<td>91.1</td>
</tr>
<tr>
<td>1975-79</td>
<td>92.1</td>
<td>53.3</td>
<td>78.8</td>
</tr>
<tr>
<td>1980-82</td>
<td>103.5</td>
<td>52.4</td>
<td>83.2</td>
</tr>
<tr>
<td>1983-86</td>
<td>114.1</td>
<td>50.7</td>
<td>83.3</td>
</tr>
</tbody>
</table>

Source: Banco de la República Financial Accounts. All figures refer to flows.

The falling household demand for stock shares in the mid-1970s was reflected in equally significant changes in the sources of funds of firms: equity financing fell, as debt—particularly of a short-term character—became the dominant source of external funds available to the firms. This process peaked in the early-1980s when short term debt became the major source of financing. Excessive reliance by productive enterprises on debt financing, together with the lack of adequate controls on financial intermediation and the strong recession experienced by the Colombian economy led to a major financial crisis in 1982-83 and to a wave of nationalizations of commercial banks and other financial institutions. As a result of the crisis, the dependence of firms on debt financing, particularly of a short-term nature, had fallen. Equity financing has increased, but it continues to be less important than in the early 1970s. However, as the household demand for stock shares has not recovered, this type of financing has mainly come from multinationals investing in coal and oil.

In the mid-1970s, changes in the sources of funds were accompanied by equally significant changes in the use of those funds by firms. As Tenjo (1983), Acosta (1986) and Melo (1989) have emphasized, increased access to debt financing was accompanied by a relative growth in the financial use of those funds—particularly commercial lending in the second half of the 1970s and the demand for interest-bearing assets in the early 1980s. This
In the aftermath of the financial crisis, financial deepening on the asset side of productive enterprises has been partially reversed. Nonetheless, a more disaggregated view of this process indicates that this form of financial deepening was a characteristic of the balance sheets of private rather than public-sector firms. Between 1975 and 1982, the financial use of funds by private firms was equivalent to 120 percent of their investment in fixed capital and inventories, whereas it was less than 40 percent for public-sector enterprises (Ocampo et al., 1989).

The relation between financial transactions and investment is shown very simply in Table 3. This table compares the less risky funds available to the firms (equity financing and gross savings) with their demand for risky assets (fixed capital and inventories). If looked at in this way, debt has been a secondary source of investment financing since the mid-1970s. Moreover, its major contribution has been associated with the accumulation of capital by public-sector firms, with the corresponding funds being supplied by the international rather than the domestic capital market. From the point of view of private firms, equity financing and gross savings have been in excess of the demand for investment in the 1980s.

These observations cast considerable doubt on the positive effects of financial deepening on capital accumulation. As we have seen, such a process has not reduced the dependence on forced savings as the major source of net lending by households to other economic agents. Moreover, it may have accelerated the decline in the household demand for stock shares, particularly those issued by corporations. Finally, in the absence of a strong demand for investment and adequate government controls, financial deepening may have induced perverse financial behavior in firms: the increasing use of funds for financial transactions rather than real investment.7

Additional doubts on the relation between financial deepening and investment are cast by the growing literature on the determinants of savings in Colombia.8 Contrary to the strong evidence on the interest-sensitivity of financial savings—i.e., the demand for interest-bearing assets—existing studies have failed to find any relation between savings and interest rates, and even a strong relation between savings and the demand for interest-bearing assets (see, on the latter, Herrera, 1989a, and Ocampo, 1989). These studies indicate that savings are mainly determined by other factors: the distribution of income between labor and capital, the relative importance of temporary vs. permanent income, and the supply of external financing, with evidence of a strong substitution between public-sector savings and such financing. The most recent studies also indicate that a redistribution of income between the public and the private sector—through taxation or inflation—determines which sector saves but does not affect the aggregate savings rate.

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7. See a more extensive, and somewhat different, analysis of this problem, in Sarmiento (1984).
8. See a survey of this literature in Ocampo et al., 1989.
Financial policy

In recent years, economic policy has tried to reverse some of the adverse trends in the financial structure of firms that were typical up to the early 1980s, while maintaining its long-term commitment to gradual liberalization of capital markets. As a result of the 1982-83 financial crisis, supervision of financial intermediaries was strengthened and several institutions were nationalized. Some of them are now being re-privatized. At the same time, to strengthen the financial sector, the government has forced financial intermediaries to improve their capital base and has established deposit insurance (in 1988) to reduce the risks to depositors.

On the other hand, since 1980 most interest rates have been market-determined, except during two short periods (first semester of 1986 and August 1988-January 1989). A few rates are, nevertheless, regulated. These have been managed so as to keep pace with the market-determined deposit and lending rates. As an essential component of this policy, monetary controls have relied increasingly on open market operations. Reserve requirements have been gradually reduced from the extremely high levels reached at the end of the coffee boom of the 1970s, when they were used as one of the major tools of monetary control.

However, high reserve requirements, forced investments of financial intermediaries to finance the development funds managed by Banco de la República, and inefficiencies in the domestic financial system make the margin between market lending and borrowing rates extremely large (between 9 and 11 percentage points). To reduce the cost of credit to productive firms and induce a rationalization of the costs of financial intermediation, the government has allowed the development of new financial instruments, in particular, bank acceptances and bonds issued by productive firms. It has also lowered forced investment requirements and increased their yields to financial institutions.

Simultaneously, since 1980, the government eliminated money creation as a source of financing of development funds. During the crisis of the mid-1980s, the central bank was forced to lend in order to rescue many financial institutions. But in the second half of the 1980s this type of credit was almost eliminated. The interest rate subsidy granted through the development funds was significantly reduced in 1987, when the rediscount rates of the funds were tied to the (market-determined) average deposit rate. In August 1989 the government allowed debtors to capitalize part of the interest payments due on long-term development loans so as to reduce the short-term burden generated by high nominal interest rates under inflationary conditions.

At the same time, the tax system has been improved to reduce the incentive for debt vs. equity financing. Inflation correction for interest receipts and payments was introduced for the first time in 1983. Congress

also decreed in that year a limited tax subsidy for corporate equity financing. In 1986 the first mechanism was improved, the corporate tax rate was reduced from 40 to 30 percent—eliminating at the same time most exemptions and subsidies—and the double taxation of capital income was eliminated. In 1988 a complete system of inflation adjustment of balance sheets for tax purposes was finally introduced but it will be introduced gradually and will not be fully operative until 1992. To complement incentives created by these reforms, development loans to highly leveraged firms have been curtailed, but resources have been made available to their owners for equity financing.

Despite the gradual liberalization of capital markets, the government has refused to eliminate credit allocation through the development funds. Two market imperfections serve as the justification for this form of regulation. First, the operation of free capital markets biases financial transactions toward short term contracts. Second, the concentration of private financial intermediation in the hands of a few conglomerates requires direct intervention by the central bank (or other official institution) to adequately supply credit to other economic agents.

It is important to emphasize that financial liberalization can be justified on grounds other than its theoretical effect on savings and investment. In particular, the recent historical experience of the country indicates that the present system of monetary control is preferable to that used during the coffee boom of the 1970s, which created great incentives to circumvent regulations. The growing supply of financial instruments also creates great obstacles to extended interest rate controls. Finally, exchange controls have proven to be a useful instrument of macroeconomic policy in Colombia. However, there is growing evidence that linkages in the existing system create several linkages between the domestic and the international capital market, making active intervention in the domestic market a highly risky endeavor.10

It is unclear whether financial and tax policy has been effective in encouraging the recent recovery of private investment. While it has been very effective in reducing the incentives for debt financing, it has proven unable to reactivate the primary issue of equity and even the secondary market for stock shares. Under these conditions, the reforms implemented since the mid-1980s have actually reinforced the dependence of productive firms on their internal funds—and, thus, on price/cost margin—for investment financing. Indeed, as was shown earlier, private firms have ceased to be net demanders of financial resources in recent years. Available information also indicates that primary issues by corporations increased from 0.25 percent of GDP in 1981-82 to 0.62 percent in 1983-84, but then steadily declined to 0.23 percent in 1988. On the other hand, as has been the rule since the 1970s, the sales of stock shares continue to make up only a small fraction of total transactions in the stock market (11 percent in 1989).11


11 See Comisión Nacional de Valores, Informe Anual, 1984-85 to 1988-89 and Revista de Banco de la República, several issues.
Three explanations may be used to explain these results. First, control of the stock market by conglomerates continues to be a deterrent against household demand for such financial instruments. Second, the availability of less risky assets has considerably increased as a result of the financial reforms. Finally, the development of institutional investors continues to be highly restricted.

Policy Implications

This paper casts doubt on the usual recommendation to increase savings and to liberalize the capital market as a means of encouraging investment. As the historical experience of Colombia in the 1970s and 1980s indicates, if the economy is not experiencing an autonomous increase in investment demand, higher savings may only lead to compensatory movements in the capital account of the balance of payments. On the other hand, in the absence of a strong demand for investment and adequate government controls, financial deepening may encourage the use of funds by productive firms for financial transactions rather than real investment.

According to both econometric evidence and the opinion of the entrepreneurs, the most important incentive to invest in Colombia is a strong and stable domestic demand. This association reflects, to a large extent, the inward-oriented trade regime that the country has followed over the past half century and may not be equally strong under an alternative macroeconomic setting. In any case, no policy can serve as a substitute for adequate macroeconomic management. The internal funds of the firms (retained earnings and depreciation funds) have also increased the dependence of private firms on these funds. Curiously enough, this process may have contributed, through increasing price/cost margins, to a deterioration in the inflation-growth tradeoff that the authorities presently face.

Recent policies have, nonetheless, been successful in developing the incentives necessary to correct the distortions in the financial structure of productive firms typical of the late 1970s and early 1980s. They have not, however, been effective in reactivating primary stock issues. Other policies may be necessary for that purpose, particularly anti-rust legislation and promotion of institutional investors. Even then, reversing the adverse trend in the household demand for stock shares may prove difficult. Since private foreign investment has been the major supplier of equity funds in the 1980s, its dynamism would also prove crucial for investment in the near future. Its role could be enhanced by the development of special funds to channel international portfolio investment.

Recent financial policy is consistent with the evidence that the availability of domestic financing is more important than its cost. More recently, however, entrepreneurs have started to regard high interest rates as a growing obstacle to investment. Policies aimed at reducing financial costs—particularly the significant margin between deposit and lending rates—would thus play an important role in the future. On the other hand, given the strong evidence of substitution of external financing for public-
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sector savings, authorities should closely monitor the effects of any reactivation of external lending on such variables.

According to available econometric evidence, a reduction in the relative price of capital goods would encourage investment. However, it is unclear what policies could be used for that purpose. Reducing taxes on imported machinery and equipment is certainly a possibility, but it has negative effects on tax collections. On the other hand, nobody would seriously consider recommending exchange rate overvaluation as a mechanism to encourage investment. However, the adverse effects of devaluation on investment demand should be taken into account.

This leads finally to the most important policy decision that the Colombian government has been implementing in recent months: trade liberalization. According to both the econometric evidence and the opinion of entrepreneurs, the liberalization of direct import controls is likely to have a positive effect on investment in machinery and equipment. This process would be further encouraged if tariffs on such goods are simultaneously reduced. However, trade liberalization also has adverse effects on investment, as it is likely to reduce growth in the short-term (Caballero et al., 1990; Lora and Crane, 1990) and would force a real devaluation to compensate its adverse effects on the balance of payments.

General equilibrium estimations based on historical behavioral patterns indicate that the net effect of trade liberalization on investment is likely to be negative (Lora and Crane, 1990). Given the expected short-term effects of liberalization on economic activity, the transition to a more outward-oriented trade regime is also likely to reduce total factor productivity growth in the first few years, as historical patterns also indicate that the adverse Verdoon effects of recession on productivity tend to overwhelm the weak direct linkages between liberalization and efficiency (Echavarria, 1990; Roberts, 1988). In contrast, the incentives to invest in export activities and the greater efficiency of investment under the new macroeconomic setting run in the opposite direction. However, since the magnitude of the latter effects cannot be predicted, expected behavior based on historical patterns are a strong argument for gradual trade liberalization.
References


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