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Mexico's External Debt and the Return to Voluntary Capital Market Financing

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Abstract

The paper analyzes the evolution of Mexico's approach to commercial bank debt restructuring since the outbreak of the 1982 debt servicing problems. It discusses the key elements of the approach, their implementation, and their interaction with developments in the "international debt strategy." It focusses, in particular, on factors contributing to the emergence of comprehensive market-based debt and debt service reduction operations. Together with the sustained implementation of appropriate economic policies, these operations have contributed to Mexico's return to voluntary international capital market financing. The paper discusses the major aspects of this market re-entry process.

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Summary

The paper examines the evolution of Mexico's bank debt restructuring approach since the outbreak of debt servicing problems in 1982. It analyzes the gradual shift away from a liquidity-based approach and toward one placing greater emphasis on the adverse impact of a growing stock of external debt on private sector investment and economic growth. In the context of the sustained implementation of sound economic and financial policies, appropriate debt restructuring has played a critical role in allowing Mexican borrowers to restore access to voluntary international capital market financing.

The emergence of Mexico's debt problems reflected inappropriate domestic policies and unfavorable exogenous developments. The problems were recognized to have adverse implications for the country's development prospects, as well as the financial integrity of the international banking system. The initial restructuring approach, developed in the framework of the "international debt strategy", focused on providing cash flow assistance through principal rescheduling and concerted new money loans. This supported the implementation of corrective economic policies while affording bank creditors the opportunity to strengthen their balance sheets.

The objective of liquidity support was broadly met, though involving generally more protracted negotiations. However, this was accompanied by a further significant increase in contractual debt obligations, with adverse implications for private sector investment. At the same time, there was growing evidence of banks' willingness and ability to dispose of their developing country claims, often at substantial discounts. In these circumstances, the Mexican authorities sought to obtain debt relief through a reduction in contractual bank claims. The 1988 Aztec discount bond exchange was followed by a comprehensive bank financing package incorporating debt and debt service reduction operations. This occurred in the context of a modification to the international debt strategy--the "Brady initiative"--providing official support for such operations.

The beneficial cash flow impact of Mexico's debt reduction package was accompanied by a significant improvement in private sector perceptions of country transfer risk. This was manifested in the sharp reduction in domestic real interest rates and a recovery in secondary market prices for bank claims. As a result, Mexican borrowers have been able to regain access to voluntary capital market financing--a process reinforced by higher foreign direct investment and the repatriation of flight capital. Such financing has taken the form predominantly of new bond issues by public enterprises; there have also been some sizeable equity placements, private sector bond borrowings and improved bank loan facilities. Issuance terms have improved significantly over the last two years, particularly as regards yield spreads.

I. Introduction

Since the outbreak of the 1982 "debt crisis", external debt management policies have played a critical role in the Mexican authorities' efforts to restore sustained economic growth in the context of internal and external financial stability. Reflecting heightened awareness of the adverse impact of growing indebtedness on private sector confidence and economic growth, the authorities' strategy placed increased emphasis on the need to lower debt servicing obligations through a reduction in contractual claims as opposed to a rescheduling of payments falling due. The authorities' primary focus has been on reaching appropriate agreements with bank creditors in the context of working toward restoring access to voluntary international capital market financing. This has reflected the importance of bank debt in Mexico's total indebtedness and the greater preparedness of Mexico's official creditors to provide new financing. The authorities' efforts toward a comprehensive bank debt restructuring included the signing on February 4, 1990 of a far reaching financing agreement affecting some US$48 billion of Mexico's estimated total indebtedness of US$95 billion at end-1989. The agreement incorporated an innovative "menu" of financing options featuring principal reduction, interest rate reduction and a new money option. It also included waivers for future market-based debt reduction operations, as well as a "value recovery facility" linking incremental debt servicing payments to better-than-anticipated developments in Mexico's oil export prices.

Together with the sustained implementation of a comprehensive medium-term economic adjustment and reform program, the impact on the economy of appropriate debt restructuring has been dramatic. In addition to the reduction in debt servicing obligations, the package contributed to a sharp improvement in private sector perceptions of Mexican transfer risk. Diminished concerns about Mexico's external indebtedness were reflected in a sudden and substantial fall in real domestic interest rates, a surge in domestic share prices, a recovery in secondary market prices for Mexican external bank claims, and a reduction in yields on foreign bond issues. These developments were associated with large private capital inflows--in the form of foreign direct investment and the repatriation of flight capital--and the restoration of Mexico's access to voluntary international capital market financing.

This paper analyzes the evolution of Mexico's debt restructuring approach from the outbreak of the 1982 debt servicing problems to the recent restoration of access to voluntary financing. It discusses the key elements of the approach, the manner in which they were implemented and the factors contributing to their development into comprehensive debt and debt service reduction operations. 1/ This provides the basis for an analysis of the country's return to voluntary capital market financing and the implications for the future conduct of debt management policies. Specifically, Section II outlines the background to the 1982 crisis and the authorities' initial approach, including an analysis of the elements that led to the growing consensus, both at home and abroad, for addressing the debt problem through debt reduction operations rather than repeated rescheduling/new money exercises. Section III describes the authorities' debt reduction approach, focussing in particular on the structure of the bank debt reduction package finalized in 1990 and the associated debt-equity program. Section IV analyzes the 1990 package's direct and indirect impact on the Mexican economy. Section V discusses the country's subsequent return to voluntary capital market financing--a fundamental market test of Mexico's progress toward medium-term viability. It provides a quantitative analysis of the extent and terms of the market re-entry process in its early stages, and discusses several of the financing techniques used to this end. It also outlines some of the implications for debt management policies in what has been labelled by some as the era of "life after debt."

Developments in Mexican debt issues have had effects that go well beyond their contribution to the restoration of the country's medium-term viability and the rationalization of creditors' balance sheets. In effect, Mexico's bank packages are often viewed as having created precedents for more generalized adaptations in debt restructuring terms. At the same time, Mexico has been among the first developing countries to benefit from international initiatives concerning commercial bank debt restructurings, such as the Baker Plan and Brady Initiative. Moreover, it is among the first countries with recent debt servicing problems to restore access to voluntary financing from international loan, equity and bond markets. For these reasons, the present analysis of Mexico's debt management policies is conducted within a broader framework emphasizing the two-way interactions between developments in Mexico and the evolution of the "international debt strategy."

1/ Given the coverage of the paper, it does not discuss in any detail the formulation and implementation of Mexico's adjustment policies during this period. It must be stressed, however, that appropriate debt restructuring will only have a lasting beneficial impact on the economy if it is accompanied by the sustained implementation of sound economic and financial policies.

II. Debt Management Policies in 1982-87--
Emphasizing the Liquidity Support Aspects

1. Emergence of debt servicing problems

In August 1982, Mexico announced to its commercial bank creditors its inability to meet fully its scheduled debt service payments. It requested a three-month moratorium on principal payments and the formation of a bank "advisory group" to negotiate the restructuring of its bank claims. The action is often regarded as marking the outbreak of the "international debt crisis" since it was followed by similar developments in many other developing countries. This, in turn, was reflected in a sharp increase in debt rescheduling agreements, with the average number of agreements per year increasing from 4 in 1978-81 to 18 in 1983-84 for bank debt, and from 4 to 15 in the case of París Club debt. 1/

Although the debt problems of Mexico and several other developing countries came to prominence in 1982, their causes reflected developments over a number of years. The emergence of severe debt servicing difficulties was due to the implementation of inappropriate domestic policies (particularly over-expansionary fiscal and monetary stances and maintenance of overvalued exchange rates), unfavorable exogenous developments (including adverse terms of trade and international interest rate developments, sluggish demand in industrial country trading partners, and growing protectionist tendencies) and a sharp cutback in the availability of private external financing. The combined effect of these factors was a reduction in debtor countries' debt servicing capacity at a time of increasing debt service payments obligations.

In Mexico's case, the pursuit of over-expansionary domestic demand management policies was reflected in a sharp deterioration in the fiscal balance (with the PSBR doubling to some 14 percent of GDP in 1981 as compared to the 1976-78 average) as a result of a substantial increase in public expenditures (from around 30 percent of GDP in 1976-78 to 40 percent in 1981--excluding interest payments and PEMEX (national oil company) spending) and despite record oil receipts. This was accompanied by a sharp appreciation of the real effective exchange rate (by over 25 percent between 1979 and 1981), an acceleration in inflation (with the CPI rising by almost 100 percent in 1982 compared to an average annual rate of 33 percent in the preceding three years), and a marked deterioration in the current account deficit (increasing from US$3.2 billion (equivalent to 3.1 percent of GDP)

1/ Details on commercial bank and Paris Club debt restructurings are contained in the International Monetary Fund's annual reviews of international capital markets and multilateral official debt reschedulings, respectively.

in 1978 to US$13.9 billion (5.8 percent of GDP) in 1981, despite the sevenfold increase in petroleum receipts). 1/ 2/

The country's worsening current account position was financed in large part through increased external borrowing, especially by the public sector. As a result, external debt grew from under US$30 billion at end-1977 to US$75 billion at end-1981; in 1981 alone, the country's external indebtedness grew by almost 50 percent (Chart 1). The situation was aggravated by the deterioration in the structure of debt, with the share of short-term claims (with maturity of less than one year) in total debt increasing from 13 percent at end-1978 to 30 percent at end-1981 (Chart 2). Accordingly, the Mexican economy was extremely vulnerable to the major adverse exogenous developments that occurred in 1981-82, including the sharp increase in international interest rates.

The mobilization of non-concerted external financing to cover the balance of payments requirements became more difficult during the course of 1982 as concern mounted in financial markets regarding Mexico's deteriorating economic situation. The arrangement in mid-year of what turned out to be the final voluntary bank syndication of US$2.5 billion proved protracted--with only 75 banks accepting out of the 650 invited--despite the attractive pricing of the loan. 3/ Analysts have observed that by July 1982, "it became clear that the only debt management expedient left was to continue rolling over short-term credits--at any price and at any maturity." 4/ New bond issues fell to US$1.6 billion from US$2.3 billion in 1981, while access to new short term commercial bank credit lines was significantly curtailed. 5/

Yields on existing international bond issues rose sharply reflecting heightened risk perceptions among international investors. 6/ Domestic residents' loss of confidence in peso-denominated assets was reflected in a sharp growth in currency substitution (with the share of dollar deposits in total deposits increasing from less than 20 percent in the late 1970s to over 40 percent in 1981-82) 7/ and substantial private capital outflows

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1/ The current account deficit had averaged US$2.1 billion in the 1970-77 period, equivalent to 3.0 percent of GDP. (Based on data reported in International Monetary Fund (1985)).

2/ Discussions of economic developments during this period are contained in Cumby and Obstfeld (1983), Solis and Zedillo (1984), and Zedillo (1985a and 1985b).

3/ See Castro (1983).

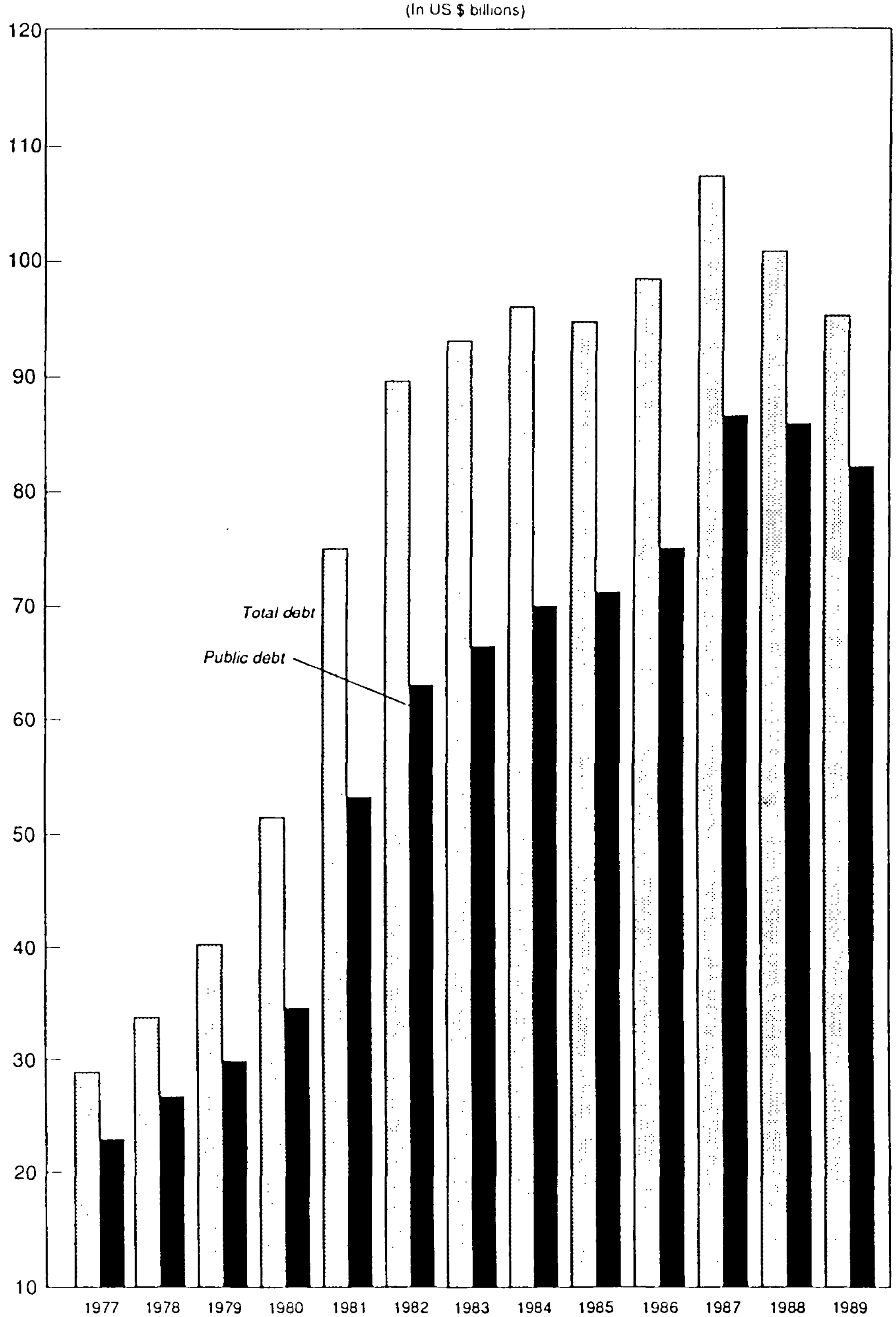
4/ Solis and Zedillo (1984), pages 44-45.

5/ After growing by US$9 billion during 1981 to US$28 billion, short-term claims on Mexico of BIS reporting banks remained broadly unchanged in 1982.

6/ A discussion of developments in bond yields during this period is contained in Edwards (1986).

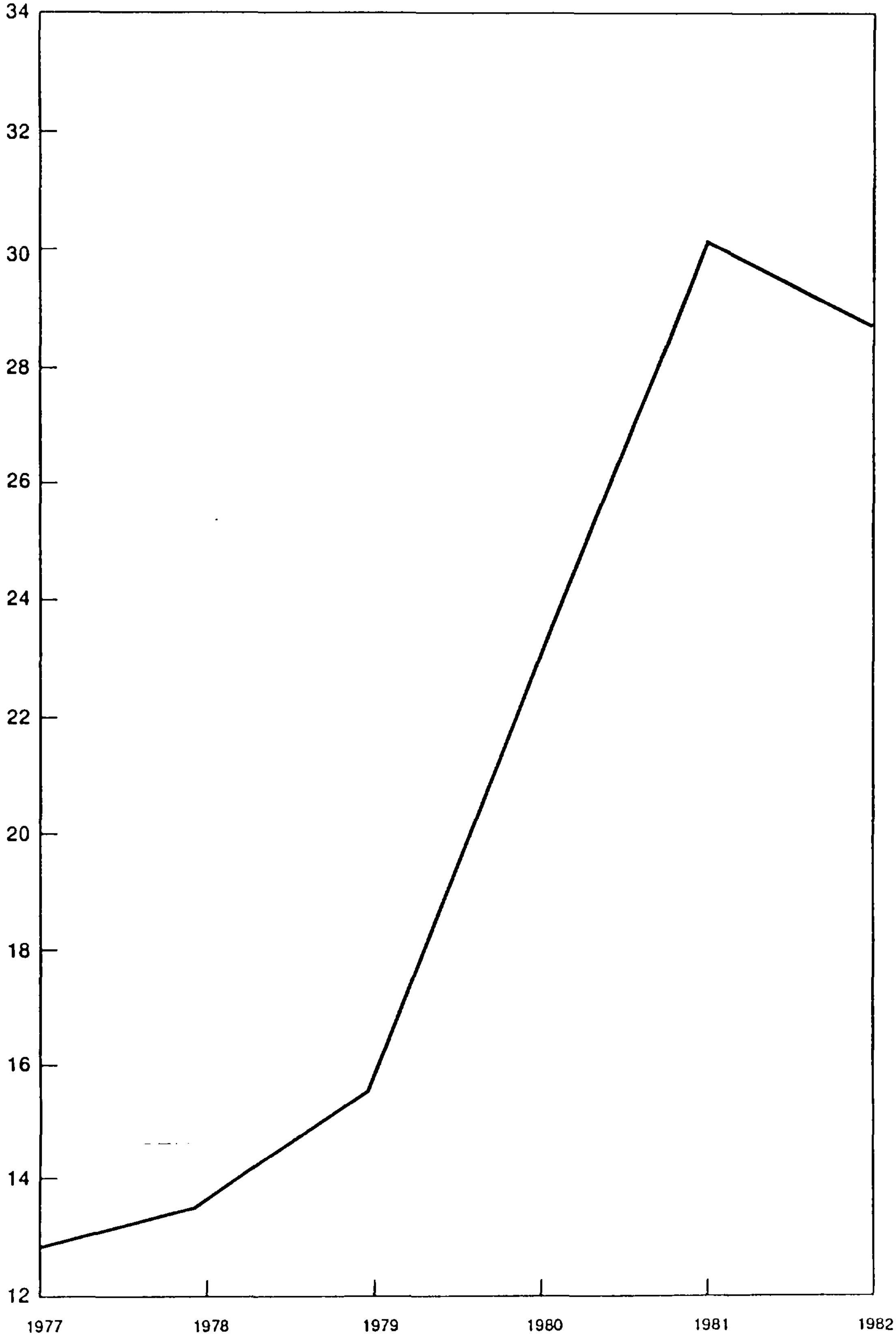
7/ A discussion of currency substitution in Mexico is contained in Ortiz (1983).

CHART 1
MEXICO
EXTERNAL DEBT
(In US $ billions)



Source: IMF

CHART 2
MEXICO
SHORT-TERM INDEBTEDNESS
(as percent of total debt)



Source: IMF

(with capital flight estimated in the US$17-23 billion range for 1980-82). 1/ Thus, despite a sharp contraction of imports and the consequent improvement in the current account balance (by 2 percentage points of GDP), Mexico resorted to a substantial drawdown in reserves during the course of 1982 which, by the end of the year, stood at the historically low level of 2.9 months of imports.

Mexico's debt servicing problems were recognized to have adverse implications not only for the country's growth and development prospects but also for the financial integrity of the international banking system. For example, by 1982, the capital of U.S. banks covered only 50 percent of external claims on developing countries, with Mexico accounting for a significant portion of these claims. The nine largest U.S. money center banks had an exposure to Mexico (i.e., claims adjusted for guarantees and other risk transfers) of US$13 billion at end-December 1982; this was equivalent to 45 percent of their total capital and accounted for 15 percent of their exposure to all developing countries. 2/

The systemic implications of developing countries' debt difficulties led to a recognition of the need to approach the problem within a comparably systemic "international debt strategy." Based on increased coordination among debtors, creditors, and international financial institutions (IFIs), the strategy sought to strike an appropriate balance between financing and adjustment, while ensuring relatively equitable burden-sharing among creditors. Under the strategy, which was applied on a case-by-case basis, debtors were urged to adopt adjustment programs seeking to restore financial viability; official bilateral and commercial bank creditors were urged to provide liquidity support through principal reschedulings and new money facilities. The Fund and the World Bank were given a central role in assisting in the formulation and implementation of debtors' adjustment policies and mobilizing external assistance in support of these policies. 3/

2. Period of repeated debt reschedulings

After intense negotiations, 4/ the Mexican authorities succeeded in rescheduling debt servicing obligations to commercial banks, in the context of an adjustment program aimed at macroeconomic stabilization. The bank agreement, which was made effective in March 1983, included (i) the rescheduling over 8 years (including 4 year grace) of US$19 billion of obligations (reflecting 100 percent of eligible principal falling due over

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1/ Estimates reported in Lessard and Williamson (1987).

2/ Estimates based on data contained in Federal Financial Institutions Examination Council (1985).

3/ The role of the Fund in the debt strategy is discussed in the institution's annual reports, and in Coats (1989).

4/ Accounts of the negotiations are contained in Kraft (1984) and Leeds, Roger and Thompson (1987).

the period August 23, 1982-December 1984); (ii) the concerted roll over through the end of 1986 of US$5 billion of short-term inter-bank obligations; and (iii) US$5 billion in new money through a medium-term (6 years including 3 years grace period) international syndicated credit. 1/ Thus, in total, the package was to provide Mexico gross cash flow relief of some US$30 billion over the period 1983-86. In an attempt to introduce a degree of "fairness" among the 500-plus participating banks, an individual bank's new money contribution was based on its outstanding exposure to Mexico as of August 1982. Moreover, the inclusion of short-term obligations ensured that several late lenders were not inadvertently bailed out. 2/

Pending the satisfactory conclusion of the bank financing package, Mexico received substantial bridge financing from official sources. These included advance payments for sales of petroleum and US$4 billion of official bridge loans, of which US$925 million each from the BIS and the U.S. authorities (Treasury and Federal Reserve Board) and swaps with Spain and France for US$450 million. In addition, Mexico signed a rescheduling with the Paris Club in June 1983 covering US$1 billion of obligations to 15 industrial country creditors.

The terms of the Mexican financing package (coverage, interest rate, and maturity structure) created precedents for subsequent debt reschedulings for other heavily-indebted developing countries. It also established procedures for mobilizing concerted financing from various creditors in a coordinated manner. This was reflected, for example, in the approach taken by the IFIs as they sought to ensure the effectiveness of their role as catalysts for financial assistance from official bilateral and commercial bank creditors. The December 4, 1982 telex sent by the Mexican Secretary of Finance to bank creditors stated that the Managing Director of the Fund would not recommend to the Executive Board approval of an arrangement in support of the Mexican program "without assurances from both official sources and commercial banks that adequate external financing was in place...and the principles of a realistic restructuring scheme would be favorably considered by the community." 3/ This approach was formalized through the subsequent implementation of the "critical mass" procedure. Under this procedure, the entry into effect of a Fund arrangement was made conditional on sufficient formal commitments for bank support (usually for at least 90 percent of the programmed new money). In addition to providing assurances that the program would be adequately financed, the procedure

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1/ The new money facility carried spreads of 2 1/8 - 2 1/4 percentage points over LIBOR while the spreads on the rescheduled debt amounted to 1 3/4 - 1 7/8 percentage points.

2/ The rescheduling of Mexican private sector debt is not addressed in this paper. Information on the implementation of the FICORCA mechanism ("Fideicomiso para la Cobertura Cambiaria") that was used may be found in the Bank of Mexico's annual reports and Vazquez Pando (1988).

3/ Quoted on page 49 of Solis and Zedillo (1984).

assisted in limiting free rider problems--the latter associated with withdrawals of banks which would place an "undue" financing burden on the remaining participating banks.

Despite the implementation, although with some slippages, of substantial corrective measures, Mexico faced recurrent problems in meeting contractual debt service obligations. Accordingly, the 1983 commercial bank rescheduling was followed by similar but more comprehensive agreements in 1984 and 1985. 1/ Throughout this period, as well as in later years, Mexico remained current on its obligations to banks, indicating that the cost of default (including the adverse impact on other sources of domestic and external capital) was perceived by the authorities to exceed the gains of lower net payments to these creditors. As in 1983, the 1984-85 agreements centered on the reduction of payments to banks through principal reschedulings and de-facto interest refinancing through concerted new money facilities. Thus, in April 1984, Mexico secured a new money facility of US$4 billion; 2/ this was followed by the March 1985 multi-year rescheduling covering some US$30 billion of principal obligations corresponding to previously rescheduled debt, payments falling due in 1987-90, and obligations on the 1983 syndicated credit. The agreement also committed Mexico to introducing a debt-equity conversion program. This package foreshadowed several of the elements of later restructurings, including the gradual move toward stock of debt operations and allowance for banks to "exit" at a discount through debt-equity swaps.

The debt-equity program was initiated in April 1986, allowing the exchange of eligible credits for capital stock. 3/ New authorizations under the program were suspended in November 1987 in response to, inter alia, concerns about the program's inflationary pressures, 4/ doubts about the additionality of the related foreign investments, and public perceptions that Mexican capital was being sold at "unduly low prices." During 1986-90, external bank claims of some US$3.8 billion were exchanged under the program

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1/ These dates correspond to the finalization of agreements rather than the initial agreements with the steering committee of bank creditors.

2/ The 1984 new money facility carried better terms than that of 1983, including a 10 year maturity, 5 1/2 years grace period, and spreads of 1 1/8 - 1 1/2 percentage points over LIBOR.

3/ The modalities of the program were set out in Comision Nacional de Inversiones Extranjeras (1986).

4/ In its 1986 Annual Report, the Bank of Mexico warned that "This scheme can have inflationary effects in that it has recourse to the issuance of currency to finance the repurchase of foreign debt. To avoid these effects it is necessary for the Government to finance its reacquisition of its debt through the placement of securities [which has] the disadvantage of exerting upward pressure on the internal cost of credit and displacing private users of capital." Some of the costs and benefits of debt-equity swaps in general are discussed in United Nations Center on Transnational Corporations (1990).

for equity valued at US$3.2 billion, involving a weighted average discount of 17 percent (Chart 3).

Mexico's external accounts improved as a result of the implementation of adjustment efforts. 1/ By 1985, the current account had moved into surplus (amounting to US$1.3 billion, equivalent to 0.7 percent of GDP, mainly due to a 45 percent reduction in nominal import values since 1981) and gross international reserves (excluding gold and balances under payments agreements) had recovered to 4.3 months of imports. The sustainability of this improvement, however, was increasingly questioned. Given the extent and nature of the initial economic and financial imbalances, the adjustment efforts were accompanied by an initial deceleration of economic growth. Despite the repeated debt restructurings, debt service payments averaged around 35 percent of receipts from exports of goods and services, with the bulk of payments representing interest obligations. Moreover, the economy remained vulnerable to adverse exogenous shocks at a time when access to concerted bank loan facilities became increasingly difficult as a result of weakening creditor cohesion and associated free rider problems. This compounded the impact of the near total absence of voluntary external bond financing. 2/

These types of concerns were instrumental in the decision to strengthen the international debt strategy through the "Baker Plan". The plan, announced in October 1985, maintained a case-by-case approach and called for: (i) the implementation by debtor countries of strong growth-oriented adjustment policies; (ii) increased structural adjustment-type lending by multilateral institutions (50 percent increase in net disbursements); and (iii) additional net lending by commercial banks (amounting to 2.5-3 percent of exposure per annum for 1986-88). These actions were to be supported by a growing world economy and open industrial country markets for developing country exports. While still based on the predominance of liquidity problems, the Baker Plan reflected greater recognition of the deep-rooted nature of the debt problems facing developing countries.

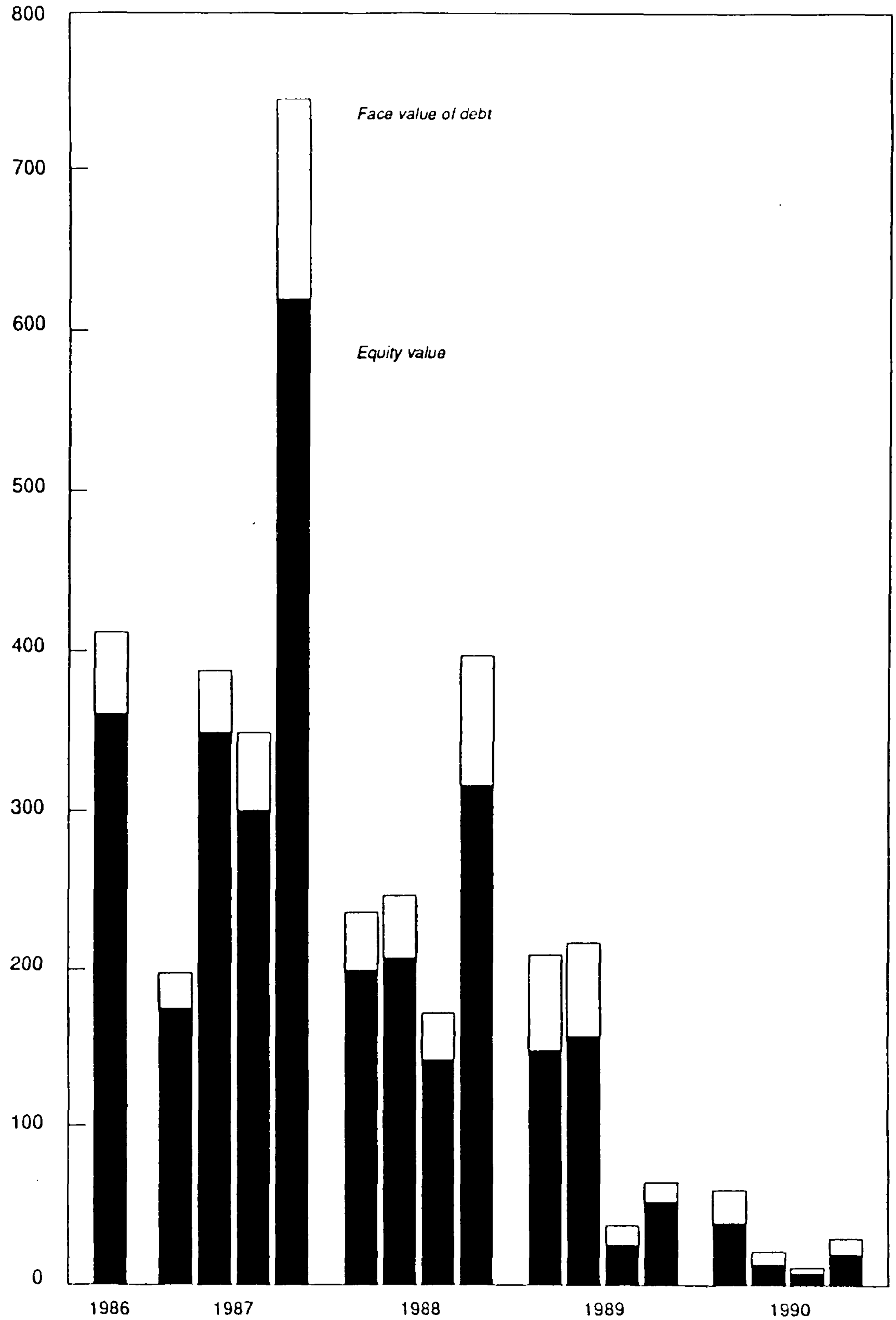
After protracted discussions during the course of 1986--which took place in the context of a strengthening of adjustment policies in response to, inter alia, a sharp decline in international oil prices--the authorities finalized in April 1987 a relatively innovative and comprehensive agreement, consistent with the emphasis of the Baker Plan. 3/ The agreement contained the traditional new money and principal rescheduling elements, as well as growth and investment contingency financing facilities.

1/ The tightening of economic and financial policies is discussed in Gil Diaz (1987) and Dornbusch (1988).

2/ After declining to US$1.6 billion in 1982, Mexican international bond issues averaged only US$72 million in the next five years, with three of these years characterized by no new issuance activities.

3/ Agreement on the "critical mass" for the new money facility was reached in late 1986.

CHART 3
MEXICO
DEBT-EQUITY CONVERSIONS
(In US $ millions)



Source: SECOFI

Specifically, it included: (i) a new money facility of US$5 billion; (ii) US$1 billion in cofinancing with the World Bank; (iii) US$2 billion in growth contingency and contingent investment support facilities; and (iv) the rescheduling of US$45 billion of principal claims. The agreement also carried significantly more favorable terms including maturities of up to 20 years (including 7 year grace) on the rescheduled portion and a uniform spread of 13/16 percentage points over LIBOR. 1/ As regards official bilateral debt, Paris Club creditors granted a multiyear rescheduling agreement in September 1986 covering US$2 billion of non-previously rescheduled obligations falling due between September 1986 and March 1988. Mexico had also received exceptional support in the form of a US$1.6 billion bridge financing from industrial country governments and other Latin American countries. 2/

3. *Secondary market for bank claims*

The protracted nature of bank restructuring exercises and the introduction of officially-sanctioned debt-equity conversions contributed to a marked growth in the importance of the secondary market for bank claims on developing countries. Although there are no comprehensive data on the size of the market in its early stages, partial indicators point to a steady growth throughout the second half of the 1980s. Annual turnover is estimated to have increased from less than US$5 billion in 1985-86 to US$30-40 billion in 1987-88, with Mexican paper accounting for a significant portion. The bulk of the transactions reflected banks swapping assets as a means of rationalizing their loan portfolios, purchases of claims for use in debt conversions, and retirement by the corporate sector of own-debt at a discount.

Secondary market prices exhibited considerable volatility during these years around a declining trend. As illustrated in Chart 4, the secondary market price for bank claims on Mexico declined from 63 cents on the dollar (discount of 37 percent) in early 1986 to around 40 cents on the dollar (60 percent discount) at end-1988. This decline reflected Mexico-specific factors (including the suspension of the debt-equity program) and, perhaps more importantly in this period, general market influences. Most significant among the latter was the announcement by major U.S. and U.K. banks during the course of 1987 of significant provisioning measures on exposure to highly-indebted developing countries. Such actions increased the immediate costs to banks of carrying these claims on their books. Moreover, the actions were perceived by the market to imply a greater willingness among banks to dispose of their claims on debtor countries.

1/ Additional information on the package is contained in Wertman (1986) and Gardner (1986).

2/ Disbursements from the facility included US$545 million from the United States, US$400 million from twelve European countries and US$155 million from Argentina, Brazil, Colombia and Uruguay.

4. Concerns about excessive indebtedness

As noted earlier, the main objective of the financing packages during the 1982-87 period was to provide developing countries with the short-term cash flow support needed to facilitate the restoration of balance of payments viability. The objective of liquidity support was broadly met, though involving generally more protracted negotiations and uncertainties about their outcome, especially in the area of new money mobilization. However, there were increasing questions, both in Mexico and in other highly indebted countries, as to the prospects for medium-term external viability. The relaxation in the short-term liquidity constraints was accompanied by a growth in contractual debt obligations, contributing to a further deterioration in market sentiments regarding debtors' creditworthiness and the eventual restoration of access to voluntary foreign financing. (Mexico-specific factors are outlined in the next section).

There were thus growing concerns regarding the impact of new money/principal reschedulings on highly indebted countries' growth potential--i.e., the so-called "debt overhang" concerns. Although these were expressed in various ways, the fundamental issue involved the implications of growing indebtedness for private sector investment activities. 1/ Specifically, as the stock of contractual debt surpasses agents' perceptions of the debtor country's capacity to service it, foreign and domestic assessments of country risk deteriorate significantly. 2/ Thus, even in the context of sustained domestic adjustment efforts, questions arise about the authorities' ability to meet debt service payments without, inter alia, further increases in effective taxation. This lowers the expected return on domestic investment activities, thereby discouraging inflows of foreign direct investment resources and encouraging capital flight and diversion of resources to consumption. In an attempt to counter the resulting credit rationing, domestic borrowers are forced to offer relatively high rates of return to foreign and domestic savers to compensate for the increased risk premia. In some cases, such rates may impose costs that are in excess of the expected return on the debt-financed activities or prove insufficient to relax the credit rationing. 3/ These adverse effects cannot be addressed through rescheduling of debt service payments but, rather, require dealing

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1/ A fuller exposition of the debt overhang concept is contained in Dooley et al. (1990). This approach can be contrasted with the comparative country analyses, based on the traditional external saving constraint model.

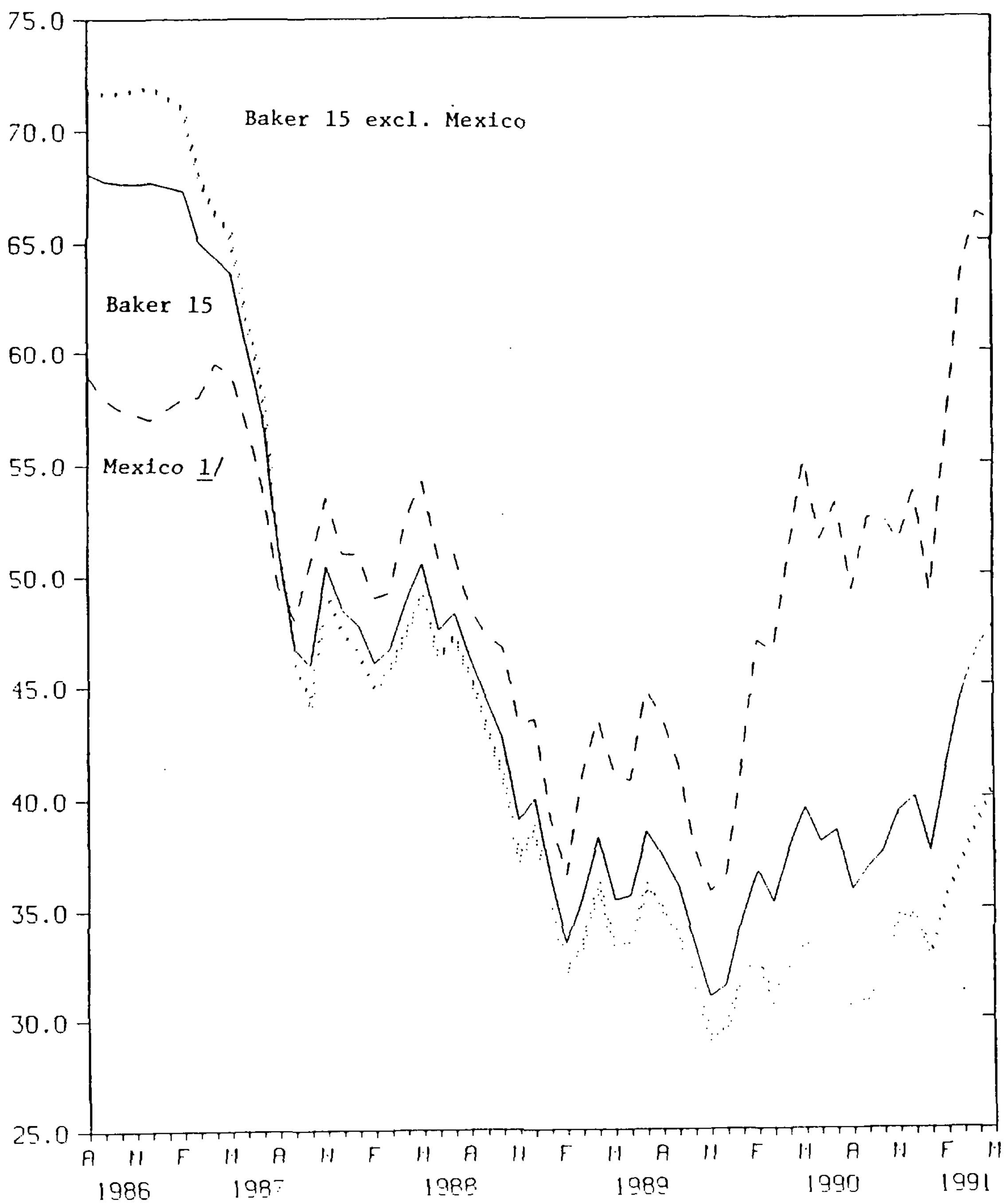
2/ The linkages between domestic and foreign indicators of country risk are discussed in Khor and Rojas-Suarez (1991).

3/ In the presence of imperfect information, borrowers may be denied access to credit even if they are willing to pay more than the market interest rate. This reflects essentially the difficulties faced by lenders in adequately pricing the riskiness of loans, taking also into account that this price may affect the subsequent behavior of the borrower and/or attract more risky borrowers (i.e., moral hazard and adverse selection risks). A discussion of these issues is contained in Stiglitz and Weiss (1981).

Chart 4

Mexico

SECONDARY MARKET PRICES FOR DEVELOPING COUNTRY LOANS
(IN PERCENT OF FACE VALUE)



SOURCE: SALOMON BROTHERS

1/ From January 1990, estimates for Mexican market prices are adjusted for the value of the principal and interest collaterals as well as the value recovery feature.

with the overall stock of indebtedness through debt and debt service reduction (DDSR) operations.

The increasing emphasis on DDSR operations was accompanied by growing evidence of banks' willingness to dispose of developing country claims, often at substantial discounts. This reflected banks' growing ability to "exit"--partly due to the gradual strengthening of their capital base 1/--as well as greater incentives to do so as a result of more stringent provisioning requirements on developing country exposure and perceptions of seemingly endless episodes of concerted new money packages based on existing bank exposure. The erosion of cohesion within the banking community intensified, leading to serious coordination problems in the formulation and implementation of concerted new money packages. These developments were part of a larger phenomenon of portfolio rationalization and reconsideration of asset structures by international commercial banks. In these circumstances, increased attention was directed to the use of a "menu" that includes a broader range of financing several options to reconcile banks' differing circumstances. 2/

III. Debt and Debt Service Reduction Operations

Mexico appeared to meet many of the "stylized facts" associated with the above-cited concerns about the stock of debt. The economy's external indebtedness had grown from some US$75 billion (45 percent of GDP) at end-1981 to US$108 billion (76 percent of GDP) by end-1987. As a result, and despite a sustained growth in nonpetroleum exports, the debt service ratio (before rescheduling) fluctuated in the 60-80 percent range in 1985-87, with interest obligations amounting to around a quarter of receipts from exports of goods and services (Chart 5). This compared to debt service and interest service ratios of around 20 percent and 8 percent, respectively, for developing countries without recent debt servicing problems. 3/ Moreover, as shown in Chart 6, Mexico debt service ratio after restructuring during this period remained above the average for the group of developing countries with recent debt servicing problems, with the margin increasing throughout the mid-1980s.

The continued deterioration in Mexico's debt situation was accompanied by increasing uncertainties about timely and adequate bank liquidity support. A growing number of bank creditors (particularly smaller ones) resisted further increases in exposure associated with concerted new money

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1/ In the case of U.S. banks, for example, the ratio of capital to external claims on developing countries increased from 49 percent at end-1982 to 119 percent at end 1987.

2/ See Devlin (1990).

3/ IMF (1991).

exercises. 1/ The associated concerns about the country's financial prospects contributed to capital flight, including in the form of a sharp rise in deposits held outside Mexico by Mexican residents. 2/ They also adversely affected the prospects for investment and sustained economic growth in the context of external and internal financial stability.

In these circumstances, the authorities sought to find ways of gaining debt relief through a reduction of claims at discounts from face value. Although international conditions were not conducive to a comprehensive debt reduction package, there was scope for some partial operations. In the context of a voluntary market-based approach, this required bank agreement to waive clauses governing the prepayment of principal and the sharing of payments among creditors grouped together through syndications and rescheduling agreements. Moreover, to the extent that debt reduction involved collateralized debt exchanges, it was also necessary to obtain a waiver of the negative pledge clause. 3/

1. Aztec debt exchange 4/

In late December 1987, the Mexican authorities and Morgan Guaranty announced a debt conversion operation involving the voluntary exchange of bank claims for newly-issued 20-year bullet repayment bonds; the principal on these bonds was fully guaranteed by U.S. Treasury zero-coupon bonds. The new Aztec bonds (also referred to in the literature as the Mexico-Morgan bonds) carried a spread of 1 5/8 over LIBOR, twice that on the rescheduled debt.

The bonds were allocated through an auction completed in February 1988, with 139 banks tendering 320 bids for a total value of US$6.7 billion of bank claims. The authorities accepted bids for 95 banks for a total face value of US$3.7 billion in claims--substantially below their goal of US$10 billion. The claims were exchanged for US$2.6 billion in new bonds, implying an exchange ratio of some 30 percent. The new bonds--which were reportedly acquired primarily by Japanese banks, followed by U.S (mainly regional) and Canadian banks--were collateralized through the Mexican purchase of US$0.5 billion of U.S. Treasury zero-coupon bonds.

1/ The 1987 new money package, for example, was delayed substantially by reluctance on the part of U.S. regional banks to participate.

2/ For example, the IFS reported stock of Mexican residents' deposits in U.S. banks increased from US$7.2 billion at end-1981 to US$14.5 billion at end-1986 (IMF (1988)).

3/ The sharing clause commits creditors party to the agreement to share on a proportional basis any payments received from the debtor. The negative pledge clause commits the debtor not to create for new debt a lien on any present or future assets or revenues without offering to share that security with existing creditors on an equal basis.

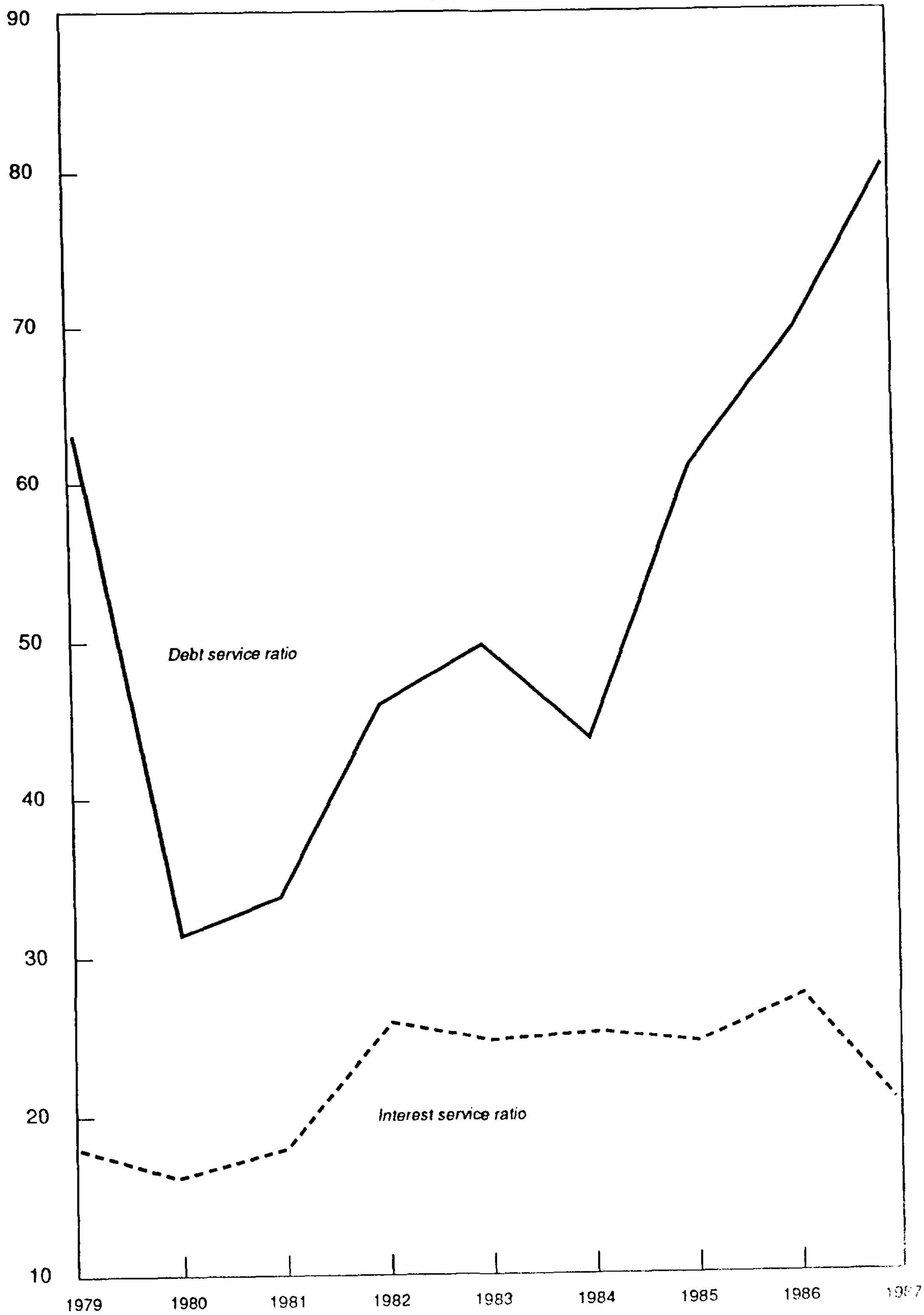
4/ Additional information on the exchange is contained in Folkerts-Landau and Rodriguez (1989).

CHART 5

MEXICO

DEBT SERVICE RATIOS BEFORE RESCHEDULING

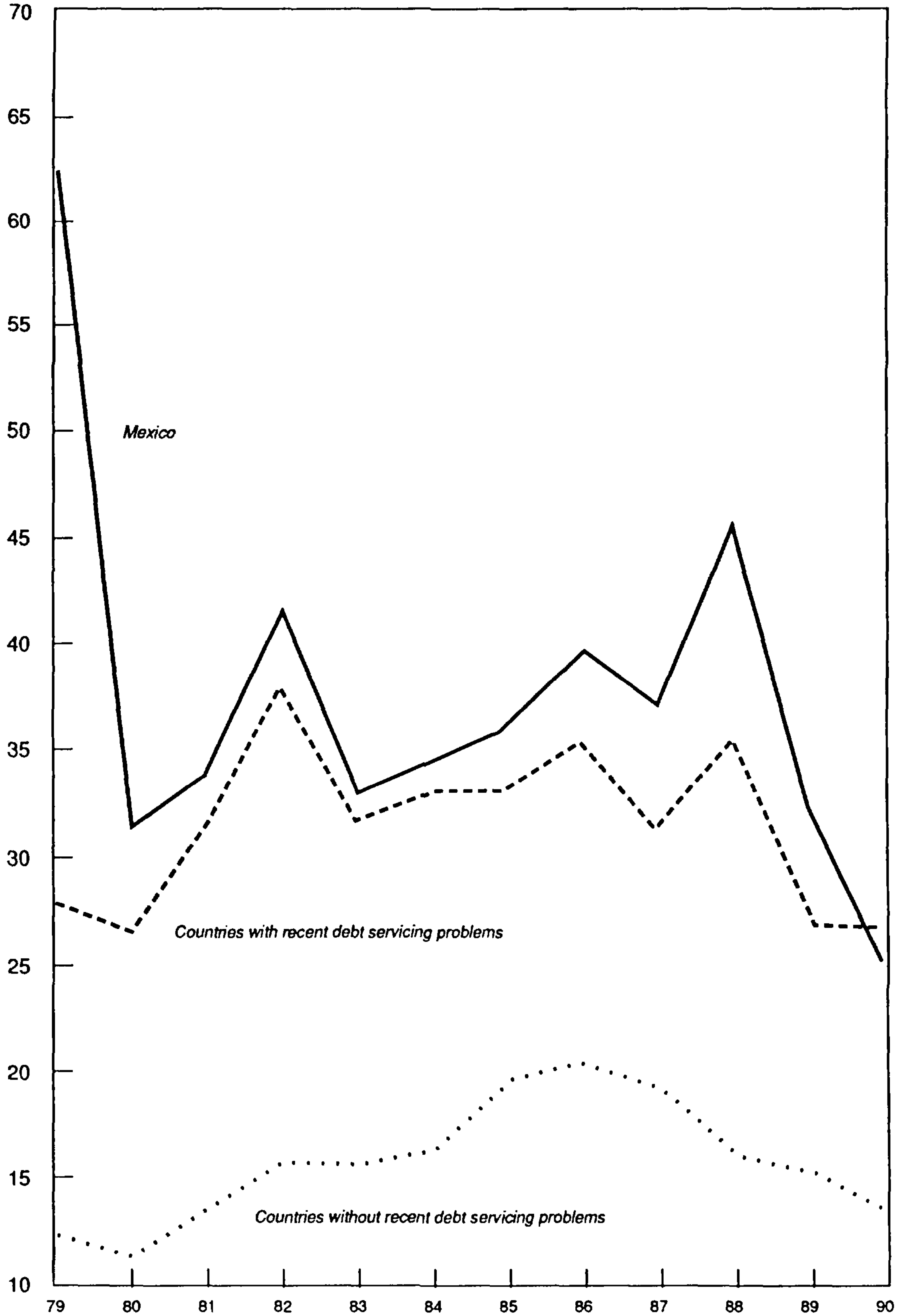
(In percent)



Source: IMF

CHART 6

MEXICO
DEBT SERVICE RATIO AFTER RESCHEDULING
(in percent)



Source: IMF

While welcoming the results of the debt exchange, the Mexican authorities emphasized the need to expand the scope of DDSR beyond the small scale operations undertaken to date. For example, in setting out the economic objectives for his administration, President Salinas emphasized a reduction in the "historical" stock of debt, lowering net external resources transfers, and the securing of multi-year agreements with creditors in order to reduce the uncertainty caused by recurrent debt negotiations. 1/ Similarly, in a 1988 presentation to other Mexican officials, Angel Gurria, Mexico's debt negotiator, noted that "every step would be taken to explore market-based, voluntary debt alternatives. If they should fail, the international community must offer a solution or else face unilateral action." 2/

2. Comprehensive debt reduction operations

The Aztec debt exchange had an impact that went well beyond its modest net debt reduction effects. It represented the first officially-sanctioned market-based bank debt reduction exercise for a large middle-income developing country debtor. 3/ It confirmed the gradual movement toward DDSR operations based on a voluntary market-based approach, and the associated recognition that some writedown of contractual debt to banks was inevitable in some cases. After a number of proposals for official initiatives--emanating from academic, banking and official circles 4/--industrial country support for comprehensive commercial bank debt reduction operations in highly indebted developing countries solidified around the proposals put forward in March 1989 by U.S. Treasury Secretary Brady. 5/

The Brady proposals stressed four key elements: (i) the adoption of medium-term reform programs in debtor countries, with special emphasis on measures to encourage investment and capital repatriation; (ii) a stronger emphasis on DDSR instruments, as a complement to new lending; (iii) the use

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1/ Aspe-Armella (1990).

2/ Hacienda's "Politica de Deuda y Financiamiento Externo," quoted in Dornbusch (1988).

3/ In November 1987, Bolivia finalized waivers from its commercial bank creditors to buy back its debt at a discount. During the first quarter of 1988, banks tendered about half of the outstanding principal claims, the bulk of which were bought back at a discount of 89 percent. The buyback was financed by official grants to Bolivia administered and disbursed through a "voluntary contribution account" held at the IMF.

4/ Some of which are discussed in Prasad and Vasudevan (1990).

5/ See remarks by Secretary Brady to the Brookings Institution and the Bretton Woods Committee Conference on Third World Debt, reproduced in Department of Treasury (1989). The move on commercial indebtedness was preceded by adaptations in Paris Club rescheduling practices for low-income countries (known as the "Toronto Initiative") involving, inter alia, debt and debt service reduction options for maturities falling due.

of IFI resources to facilitate DDSR operations; and (iv) continued creditor government support through Paris Club reschedulings, support of IFIs, ongoing export finance, and a review of constraints to debt operations imposed by the regulatory, tax and accounting regimes. 1/ These proposals established the framework for the July 1989 preliminary agreement on the restructuring of US$48 billion of Mexico's bank debt through a menu incorporating principal and interest reduction instruments.

3. The DDSR bank package

In April 1989, Mexico initiated discussions with its bank creditors on a comprehensive DDSR package. Such a package was to support the implementation of the authorities' medium-term economic program, including important structural reform efforts (in the areas of production, trade, investment and financial services) and prudent fiscal, monetary and pricing policies. 2/ Preliminary agreement on the broad elements of the package was reached with the advisory committee of banks on July 23. The "term sheet" for the agreement was finalized on September 13 and subsequently marketed to over 500 banks. With positive responses from almost all bank creditors, the financing package was signed on February 4, 1990. The exchange of instruments under the agreement took place on March 29, 1990, or almost one year after the initiation of the negotiations.

a. Menu options

In dealing with the bulk of the medium- and long-term indebtedness to banks, the financing package offered creditors a menu with three options. 3/ The first involved the exchange of claims for 30-year bullet discount bonds (at 65 percent of face value) carrying a "market interest rate" (spread of 13/16 over LIBOR) and collateralization of all principal and 18-months of interest (on a rolling basis) obligations. The second involved the exchange of claims for 30-year bullet reduced interest par bonds (fixed interest rate of 6 1/4 percent), with the same collateralization structure. Taking account of the residual Mexican risk in these new instruments, their implicit pricing was broadly consistent with secondary market prices for bank claims prevailing at the time of the initial agreement on the package. The third option involved a net increase in bank exposure through a new money facility for 1989-92 amounting to

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1/ As summarized in D. Mulford's 1990 statement to the House of Representatives' Subcommittee on International Development, Finance, Trade, and Monetary Policy, House Committee on Banking, Finance and Urban Affairs. See also Mulford (1989). A discussion of the background to the initiative is contained in Vernon, Spar and Tobin (1991).

2/ The main elements of the 1989-92 program, supported by a 3-year Fund arrangement under the Extended Fund Facility and World Bank financing, are described in Kalter and Khor (1990).

3/ The main features of the financing package are discussed in El-Erian (1990).

25 percent of eligible exposure, carrying a spread of 13/16 percentage points over LIBOR and repayable over 15 years (including 7 years grace). The financing package also granted Mexico the necessary waivers to conduct additional market-based DDSR operations in the future.

A total of US$4.4 billion of claims were allocated to the new money option, implying bank loan disbursements of US$1.1 billion over the three-year period, well below initial expectations. By contrast, the banks' response to the DDSR instruments was larger than expected. Banks accounting for US$20.6 billion chose the discount bond option, while US$22.5 billion of claims were allocated to the reduced interest par bonds. 1/ These bond instruments involved setting up collaterals for a total of US$7.1 billion, based on the net present value of the associated guarantees. The collaterals took the form of U.S. Treasury zero coupon bonds (at a yield of 7.925 percent) for the principal guarantee and the establishment of an interest guarantee account at the Federal Reserve Bank of New York. The collaterals were financed through loans from the Fund (total of SDR 1.3 billion--US$1.7 billion at end-January 1990 exchange rate--available over three years), the World Bank (US$2.0 billion disbursed upfront) and Mexico's own resources (US$1.3 billion). In addition, the Japanese Export-Import Bank provided an incremental US$2.1 billion of import financing over three years, thereby freeing an equal amount for funding the DDSR operations. Since not all of these resources were disbursed to Mexico upfront, the authorities arranged for bridge financing from the banks of US$1.2 billion.

b. Contingency facilities

The new DDSR bonds (also commonly referred to as "Brady" bonds) carry a "value recovery" facility providing for incremental payments to banks should the real price for Mexican oil exports exceed US$14 a barrel. These payments would start in 1996 and amount to 30 percent of the "windfall" oil revenue, subject to an annual limit of 3 percent of the banks' eligible claims at the time of the agreement. In establishing the terms for this recapture clause, a delicate balance had to be struck between providing a more direct linkage between Mexico's debt servicing capacity and its obligations (thereby allowing for a reduction in contractual non-contingent payments obligations) and avoiding excessive marginal taxation of incremental export receipts.

The Mexican authorities sought to introduce symmetrical downside financing contingencies in the event of unanticipated adverse exogenous events. This attempt did not succeed however, reflecting banks' general reluctance at that time to agree to increases in their exposure. Banks also refused to include downside contingency financing in the subsequent financing agreements with Venezuela and Uruguay.

1/ US$700 million of claims under Facilities 2 and 3 were not committed to any option.

c. Debt-equity program

Under the terms of the financing package, Mexico committed itself to resume the debt-equity program for a minimum amount of conversions of US$3.5 billion (face value of debt) over a three-year period. The modalities for this program, announced in March 1990, specified, inter alia, (i) the range of eligible debt (that restructured under the 1990 package plus new money commitments); (ii) modalities for conversion (auction mechanism, with successful bidders having to deposit, within ten days of the auction, claims in an amount of 5 percent of the swap rights awarded and having 18 months to acquire the remaining rights); 1/ and (iii) the sectoral distribution of the allowable equity participation (infrastructure projects and privatization purchases--the latter subject to a ceiling of 50 percent of sales).

In formulating these modalities, the authorities sought to limit the negative consequences perceived to have been associated with the earlier debt-equity program. As noted earlier, these included potential adverse domestic liquidity implications, the scope for hidden subsidies and unfavorable effects on future investment flows. To this end, the aggregate limit on conversions was derived consistent with the potential under the financing program for sterilization through issuance of domestic debt and/or for reduced total budgetary outlays. Moreover, the associated domestic liquidity creation was spread over a number of years. The announcement of strict adherence to the aggregate limit (and the relatively rapid allocation of swap rights within this limit--see below) reflected concerns among officials that an open-ended program would delay future untied private foreign direct investment inflows. At the same time, the authorities sought to ensure the additionality of the external resources and the positive externalities associated with the debt-equity operations through the specification of the allowable sectoral allocation. Finally, the adoption of an auction system with relatively few barriers to entry reflected the authorities' desire for transparent and competitive pricing.

IV. The Impact of Debt Reduction

1. The magnitude of debt reduction

The discount bond option extinguished US$7.1 billion of Mexican bank debt. At the same time, the par bond option reduced the contractual interest rate on US$22.5 billion of claims, equivalent to an additional reduction of US$7.9 billion in principal (based on then-prevailing interest rate conditions). Thus, in total, the bond instruments involved a gross

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1/ Swap rights not exercised under the program may be eventually converted back at par into new debt instruments carrying no enhancements.

effective principal reduction of US$15.0 billion, representing some 16 percent of Mexico's outstanding debt at end-1989. 1/

As regards the debt-equity program, auctions were held in July and October 1990. In the July auction, the authorities offered to convert US$1 billion of claims (original face value) using a "marginal pricing" system. They accepted 27 of the 359 offers tendered, with the lowest successful discount amounting to 52.05 percent. In the second auction, the authorities reserved the right to increase the offered amount above the initially-specified limit of US$1.5 billion. This limit was reached at a marginal discount of 53.15 percent. In view of the favorable offers, and to avoid the direct and indirect costs of holding an additional auction, the authorities proceeded to accept bids up to the global limit of US$2.5 billion. This was achieved at a discount of 52.0 percent.

In total therefore, the authorities accepted to convert US$3.5 billion of claims into equity at an average discount of 52.01 percent. The overwhelming majority of the successful bids involved par and discount bonds (as opposed to new money claims). If successful bids are fully exercised, the book value reduction in the post-package debt stock (i.e., after taking account of the discount bond adjustments) would amount to US$2.6 billion. As a result, the total gross effective debt reduction associated with the package would amount to some US$17 1/2 billion (some 19 percent of external debt at end-1989).

Since the operations were market-based (i.e., priced consistent with conditions on the secondary market for bank claims), they involved, on average, no change in banks' expected stream of receipts even though the contractual value of their obligations was reduced. Should Mexico meet fully its debt service payments--and abstracting from the additional costs/benefits associated with provisioning requirements, tax allowances and other institutional factors--the stream of receipts (measured in ex-post net present value terms) would be larger, ceteris paribus, for holders of the DDSR bonds as compared to creditors who exited fully through the debt equity route. 2/ At the same time, however, the total yield for the bond holders would be below that for creditors who opted for larger Mexican risk exposure through the new money option. Finally, the relative yield ranking within the DDSR bonds will depend, ceteris paribus, on developments in

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1/ As noted earlier, the reduction in contractual claims required Mexico to provide partial collateralization (present value of US$7.1 billion) for the DDSR bonds. This was associated with the acquisition of a "contingent foreign asset" (in the form of the zero coupon bonds and cash balances at the Federal Reserve Bank of New York) that may be used in meeting final interest and principal payments on the bonds, provided Mexico remains current until then.

2/ A comprehensive discussion of the distribution of the benefits of the package between Mexico and its commercial bank creditors is contained in van Wijnbergen (1990).

international interest rates. Thus, given that the bonds were broadly equivalent in net present value terms at the time of the initial agreement, LIBOR rates well below 9 1/2 percent would involve higher relative yields for holders of the par bonds. 1/

2. Cash flow impact of debt reduction

The direct impact of the package on Mexico's balance of payments will be felt through the savings in interest obligations. On the basis of international interest rates prevailing in 1990, the gross saving amounts to some US$1 1/2 billion annually on account of the bond exchanges and some US$1/4 billion on account of the debt-equity conversions. After taking into account the financing costs of the collateral (including foregone interest receipts due to the use of Mexico's own reserves), the total annual net savings in contractual interest obligations amount to about US$1 billion, equivalent to 0.6 percent of GDP (of which US$3/4 billion (0.5 percent) on account of the bond exchanges). 2/ The beneficial cash flow impact of the package will increase over time as a result of the lower interest payments that Mexico would have to make as external financing requirements are met through the continued impact of the DDSR elements rather than new money. The package also resulted in a reduction in Mexico's vulnerability to unfavorable movements in international interest rates. Specifically, in excess of one quarter of Mexico's remaining debt is now subject to a below-market fixed interest rate.

The financing package also involved the effective rescheduling of amortization obligations falling due, thus significantly changing the contractual maturity profile of bank indebtedness. Under the DDSR bonds, principal payments of US$43 billion were deferred to a single payment due in 2020. Principal repayments on the remaining eligible claims were rescheduled over 15 years, including 7 years grace. Unlike the reduction in interest payments, however, it may be assumed that the refinancing of principal obligations would have been granted under the previous rescheduling approach--albeit involving a series of debt negotiations.

3. Addressing concerns about excessive indebtedness

More important than the direct cash flow impact, the package had a significant positive impact on private sector perceptions of Mexico's creditworthiness and economic prospects. In the context of sustained implementation of sound economic and financial policies, the fall in Mexico's contractual debt obligations and the associated reduction in

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1/ This factor has been reflected in secondary market price developments since the issuance of the bonds, with the par bonds appreciating at a faster rate than the discount bonds.

2/ These calculations do not take into account profit and dividend transfers associated with the new participation obtained through debt-equity swaps.

uncertainties about the need and outcome of periodic debt renegotiations, contributed to a turnaround in private sector sentiment. This, in turn, facilitated the country's restoration of access to voluntary credits from international capital markets, and enhanced its ability to attract foreign direct investment and repatriated flight capital.

A number of financial indicators illustrate the turnaround in private sector perceptions of Mexican risk. Domestic real interest rates declined by 20 percentage points (to around 10 percent per annum, measured in ex-post terms) immediately after the announcement of the preliminary agreement on the bank package--a decline that has been sustained thereafter. Domestic share prices rose sharply and the secondary market price for Mexican bank claims generally improved. By end-May 1991, the ratio of the secondary market price of Mexican bank claims (calculated on the basis of the stripped yield for Mexican risk) 1/ to the weighted average of the other countries constituting the "Baker 15" group of heavily indebted developing countries had risen by around 34 percent as compared to its level before the announcement of the package (see Chart 4). 2/ Finally, as discussed in the following section, Mexico's restoration of access to voluntary capital market financing was accompanied by a decline in yields on bond instruments when compared to those on "risk-free" industrial country government issues.

V. The Return to Voluntary Capital Market Financing

Mexico's return to voluntary financing on international capital markets took the form predominantly of new bond issues on U.S. and European (particularly Austrian and German) markets by public enterprises with established international reputations, but also of equity placements and voluntary bank lending. 3/ The following two sub-sections discuss the magnitude and terms of Mexican bond issues. 4/ The implementation by Mexico of appropriate economic policies and the comprehensive debt

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1/ The derivation of the Mexican price is based, inter alia, on adjusting (or "stripping") the reported discount and par bond market prices for the value of the principal and interest collaterals, as well as the notional value of the value recovery feature.

2/ If Chile and Venezuela are excluded from the denominator on the basis that they have also conducted appropriate restructuring operations, the relative increase in the Mexican price is more pronounced.

3/ While the focus of this section is on bond financing, it should be noted that the TELMEX privatization equity offering of over US$2 billion in May 1991 is reported to have constituted the sixth largest placement of shares in the world (nominal values) and the largest for any Latin American country. Vitro, the private glass manufacturer, raised a total of US$73 million. This issue was oversubscribed despite having been increased from the initial US$50 million offering.

4/ An overview discussion of the restoration of Latin America's access to voluntary capital market financing is contained in El-Erian (1991).

restructurings consistent with medium-term viability were preconditions for access to such financing. The process was also facilitated by the use of special techniques addressing investors' concern about transfer and credit risks--an issue addressed in the third sub-section. The final sub-section discusses some of the implications for future debt management policies.

1. Quantitative indicators

Information compiled from various market reports indicate that, after an absence of several years, Mexican entities launched some US$4.4 billion in bond issues (including through private placements) between June 1989 and May 1991. 1/ After three issues in the last seven months of 1989 (for a total value of US$574 million), activity picked up substantially during the course of 1990 and 1991 (Table 1). The number and total value of issues increased in the first three quarters of the year, with eight issues being launched in the third quarter alone for a total of some US$800 million. The tightening of conditions in international bond markets occasioned by the crisis in the Middle East were reflected in Mexican bond activity in the final quarter of the year as several Mexican entities postponed their issues pending an improvement in market conditions. Accordingly, only three bond issues were launched during the quarter, for an aggregate value of US$300 million. With the improvement in general market conditions in early 1991, an increasing number of Mexican entities mobilized bond financing, including the central government. Thus, preliminary data indicate that 7 bond issues for a total of some US$1.5 billion were launched in the first five months of 1991. This included the first bond issue by the central government (DM 300 million) since the country's return to voluntary capital market financing.

The majority of new issues was accounted for by public sector corporations with established international reputations and usually possessing sound export history and prospects. Specifically, public entities accounted for 71 percent of the placements in the period June 1989-May 1991. These included entities with export earning potentials (e.g., oil for PEMEX and U.S. telephone receivables for TELMEX, now privatized), established financial institutions (Bancomext and NAFINSA), and public utilities (Comision Federal de Electricidad). Whereas private placements accounted for over half of the bonds in the 12-month period ended June 1990, their share fell to under 30 percent in the following six months and even lower thereafter. Finally, as discussed below, an important proportion of the initial "re-entry" Mexican issues included credit enhancements, particularly in the form of collateralization.

1/ Excludes the DDSR and new money bonds issued in the context of the financing package discussed above.

Table 1. Mexico: Bond Issues, 1989-91 1/

	1989 Q1	1989 Q2	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3	1990 Q4	Jan-May 1991
Value of issues (US$ million)	--	100	--	474	723	463	788	300	1,545
Number of new issues	--	1	--	2	4	6	8	3	7
Of which: Collateralized	--	--	--	1	3	2	3	0	1
Private sector	--	--	--	--	1	2	3	1	2
Average size of issues	...	100	...	237	181	77	99	100	221
Average initial yield to maturity (in percent)	...	17.0	...	12.8	13.3	12.8	12.3	12.5	10.6
Weighted average initial yield to maturity (in percent)	...	17.0	...	11.6	11.8	12.6	11.9	12.1	11.2
Average maturity (years)	...	5.0	...	3.5	4.4	4.8	4.3	4.3	4.0
Weighted average maturity (years)	...	5.0	...	4.1	4.8	5.6	4.1	4.0	4.6

Source: International Financial Review, Latin Finance and Citibank.

1/ Classified according to date of launch.

2. Developments in yields

The improved perceptions of Mexican risk were reflected not only in a relaxation in quantity rationing but also in a gradual improvement in the terms on new issues. 1/ Specifically, the yield to maturity on Mexican bond instruments generally declined during the course of 1989-90. After an initial yield of 17 percent for the June 1989 public placement by Bancomext--the first unsecured voluntary public sector issue since 1982, launched in the midst of the DDSR negotiations--the weighted average yield to maturity at issuance for Mexican bonds fell to around 12 percent in the third quarter of 1990. These reductions reflected the improvement in perceptions of creditworthiness. Thus, the estimated spread over risk-free paper declined from 820 basis points in June 1989 to 320 basis points in the third quarter of the year (Chart 7). 2/ It increased temporarily to 370 basis points in the fourth quarter reflecting deteriorating general market conditions associated with developments in the Middle East, including a general "flight to quality" among international investors. 3/ The downward trend in spreads was restored in early 1991, with the weighted average spread declining to 320 basis points for the first five months of the year (about 200 basis points for public sector issues).

These indicators of improved market perceptions of Mexican risk do not take account of the changing composition of issuers and variations in the structure of the bonds (e.g., extent of collateralization and conversion facilities). Tracking individual borrowers allows to correct for the changing composition of issuers--albeit at the cost of severely limiting the sample for analysis. For example, after facing an initial risk premium of 820 basis points in June 1989, Bancomext paid a spread of under 300 basis

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1/ Increased interest among international investors in Mexican instruments led to the country receiving its first credit rating in December 1990. The ceiling rating for sovereign Mexican debt was set by Moody's at Ba2--just below investment grade. The DDSR bonds were given a rating of Ba3 reflecting Moody's perceptions of higher restructuring risks resulting from the registered nature of the bonds, the high proportion held by banks, links to past rescheduling/new money packages and the fact that they account for a large portion of Mexico's debt to private creditors. (See the 1991 IMF report on recent developments in international capital markets.)

2/ Using, as the basis of comparison, benchmark issues by the governments of the industrial country capital markets accessed by Mexican borrowers.

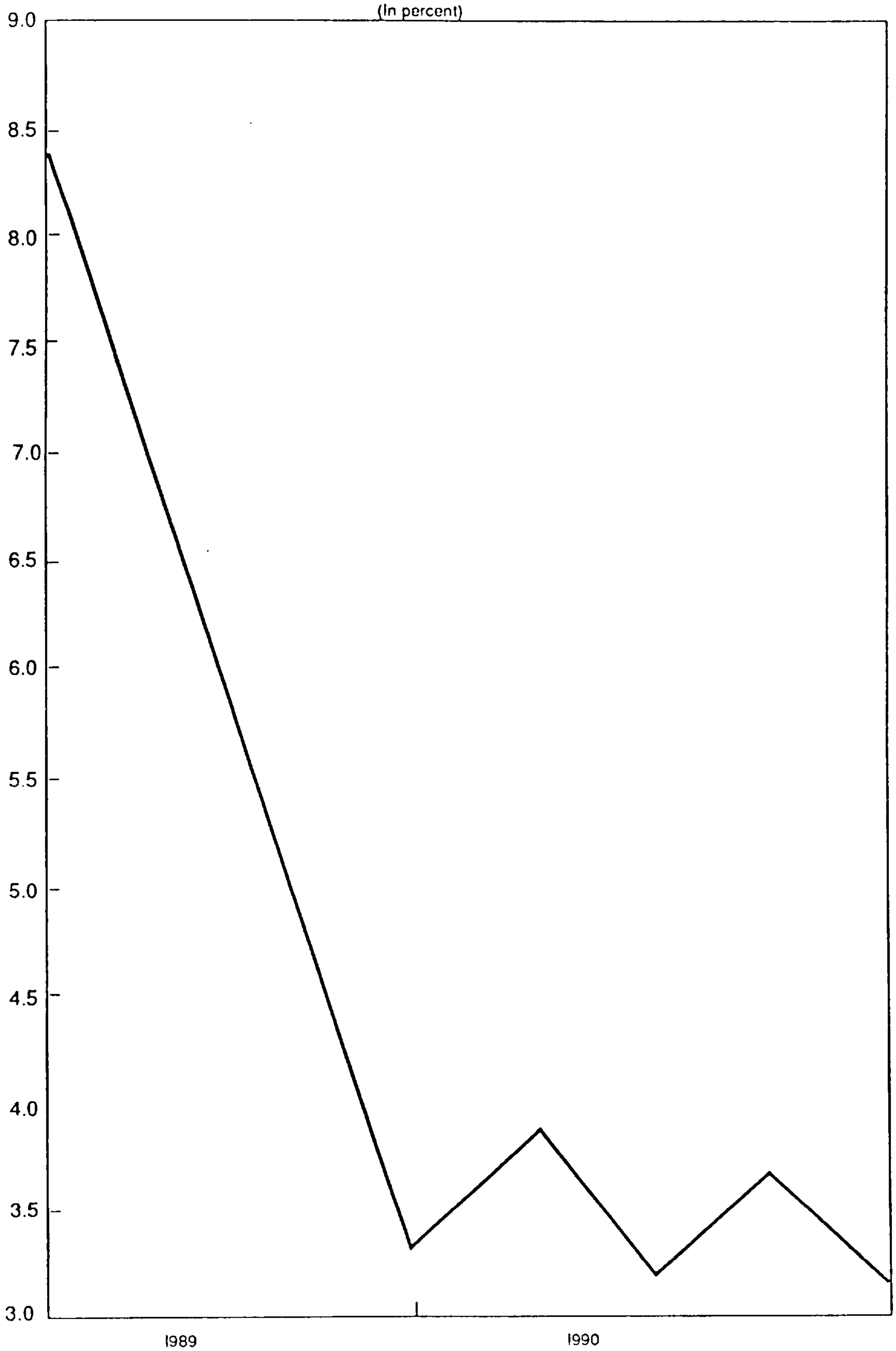
3/ A similar temporary rise was recorded in the second quarter of the year reflecting, inter alia, initial market reaction to the announcement of German unification. Additional information on general market conditions is contained in the 1991 IMF report on recent developments in international capital markets.

CHART 7

MEXICO

INDICATOR OF RISK PREMIA ON MARKET BORROWING

(In percent)



Source: IMF, Latin Finance and International Financing Review

points for its July 1990 deutsche mark placement. It fell further to around 200 basis points in the most recent 1991 issue. 1/

Evidence of improved perceptions of Mexican risk are also evident in developments in yields over time on individual Mexican issues--an analysis that also corrects for changes in the structure of the financial instruments. The yield on the PEMEX 17 3/4 percent bond fell from 13.8 percent at end-June 1989 to 12.6 percent a year later; it amounted to 10.4 percent by end-May 1991 (Chart 8), implying a reduction in the risk premium from 530 basis points to under 250 basis points during this period. At the same time, the yield on the June 1989 Bancomext bond fell from 17 percent to 10 percent.

3. Financing techniques

In an environment of substantial--albeit declining--perceptions of credit and transfer risks, borrowers must pay particular attention to "customizing" their borrowing instruments to the requirements of the market. Such customization becomes particularly important when perceptions of counterparty credit risk are compounded by concerns about country transfer risk and a general tightening of market conditions. For these reasons, several Mexican entities have used, in their initial re-entry issues, various forms of credit enhancements (CE) techniques. CEs have taken the form primarily of collateralization based on commitments of future receivables or existing assets. In most of these cases, the aim has been to differentiate and attribute seniority to the new bond instruments by providing creditors with specific legal claims on repayment resources, thereby reducing uncertainties relating to borrowers' debt servicing in the event of unanticipated adverse states of the world.

The credibility of CEs has depended on the quality of the collateral, its location and the costs involved in taking possession and disposing of it, should the need arise. In effect, these factors determine the extent to which CEs alter perceptions of credit and transfer risks. 2/ The TELMEX issues of October 1989 and March 1990 provided investors with protection in the form of a claim on future payments from AT&T for international communications. Accordingly, investors' exposure to TELMEX credit risk, as well as Mexican country risk, was effectively transformed into an exposure to AT&T credit and U.S. transfer risks. Some private sector borrowers (including the San Luis mining company) established collaterals based on deposits placed with banks outside Mexico--thereby once again offering the investor protection from both credit and Mexican transfer risk. Other

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1/ The February issue by the Mexican Government was marketed at an estimated spread of some 200 basis points over comparable German Government bonds.

2/ General discussions of the use of collaterals in dealing with adverse selection problems in credit markets are contained in Besanko and Thakor (1987) and Mattesini (1990).

companies provided collaterals in the form of electricity accounts receipts (March 1990 issue by the electricity utility), contracted payments for supplies (private sector steel company), and credit card receivables (June 1990 Banamex and July 1990 Bancomer placements).

Available data confirm a priori expectations concerning the role of collateralization in reducing the explicit re-entry spreads paid by Mexican borrowers. In the case of TELMEX, for example, the October 1989 and March 1990 bond issues involved an estimated average premium of some 200 basis points above U.S. Treasury paper. This may be contrasted to the uncollateralized TELMEX issue of July 1990 which, despite the put option in the event of privatization, carried a premium of 450 basis points at issuance. As discussed below however, the CE's beneficial contribution in terms of lower direct borrowing costs needs to be evaluated against potentially adverse longer-term implications for liquidity management and the ability to raise funds on an unsecured basis.

4. Policy implications

Mexico's return to more normal capital market financing has been a difficult and protracted process. It is generally believed that the attainment of the authorities' objectives of sustained economic growth and financial stability will require the maintenance and strengthening of normal financial relations with domestic and external creditors. As recognized by the authorities, it is therefore of critical importance that the country consolidate the progress achieved so far. 1/ Two important elements may be identified in this regard: (i) the maintenance of sound economic and financial policies; and (ii) responsive adaptations in debt management policies' including in the use of CEs, hedging and other financial risk management instruments.

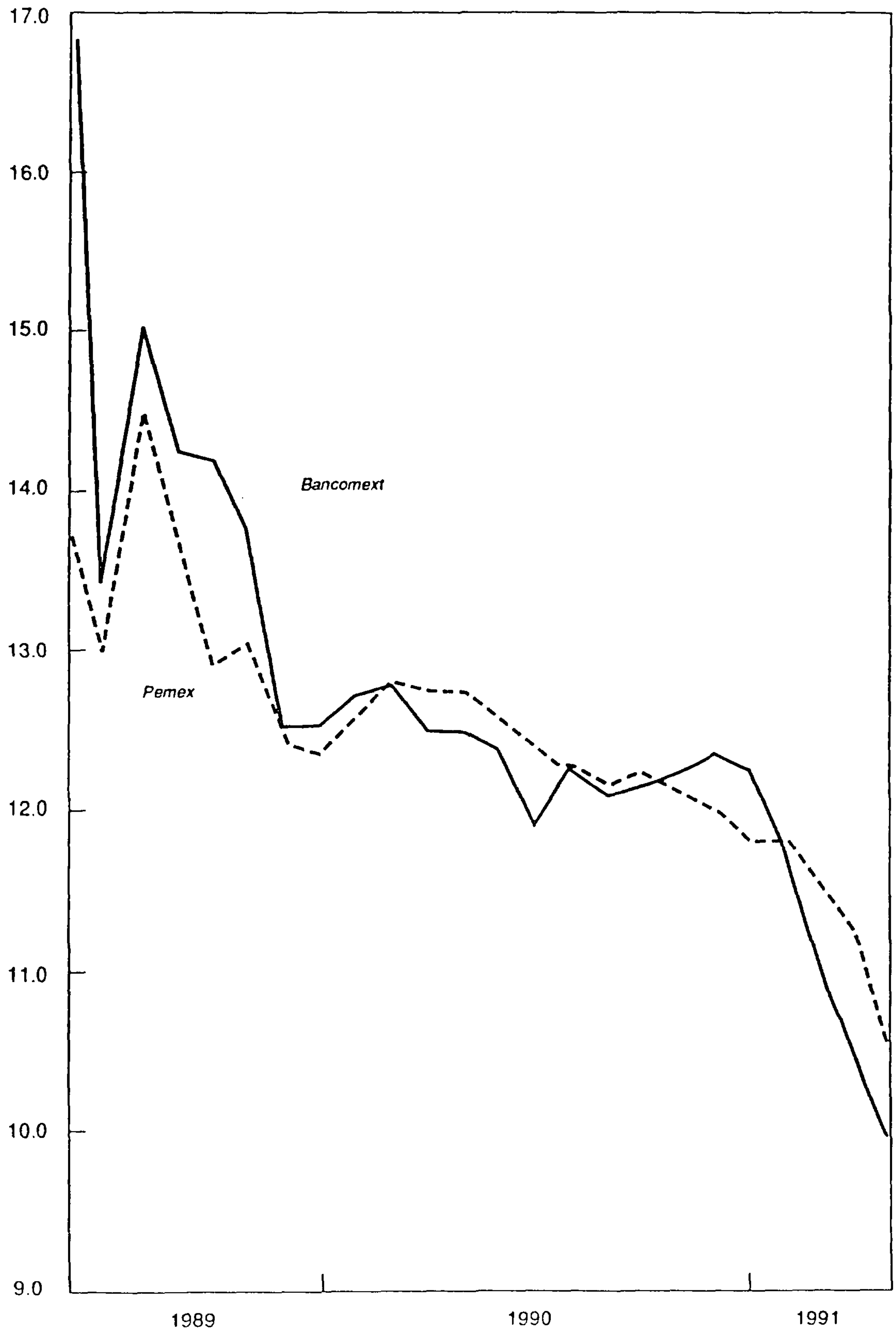
1/ It may be noted that Mexico's recent return to voluntary financing is not an unprecedented phenomenon. After defaulting in the early part of the 20th century, Mexico's entire debt was renegotiated in 1942-46, including through a reduction in contractual principal. By 1960, Mexico had redeemed the affected obligations (See Green (1976)). This was followed by a restoration of access to voluntary international markets leading the New York Times to observe: "Mexico is closing a checkered page in financial history, a story of default and rebirth that goes to the misty era of international promise that preceded World War I... The 46 years between the defaulting of the external bonds in 1914 and the granting of the [new voluntary US$100 million] loan will go down as marking the financial coming-of-age of the Latin republic... With most of the old bonds sucked out of the market by the redemption last week, most of this lingering public evidence of Mexico's long struggle to live down the old debt default has been wiped out for good" (New York Times of July 2, 1960 quoted in Dornbusch (1988)).

CHART 8

MEXICO

YIELDS FOR SELECTED MEXICAN BONDS, JUN 89 - MAY 91

(In percent)



Source: Latin Finance

a. Economic and financial policies

Sound economic policies are the key to maintaining access to voluntary capital market financing. As noted earlier, the severe debt servicing problems faced by Mexico in 1982 had, among their root causes, the pursuit of overly expansionary policies. While the authorities have largely succeeded in re-establishing policy credibility, the Mexican economy remains vulnerable to sudden and large reversal of private capital flows in response to policy slippages. When compared to 1982, the financial sector of the economy is significantly more integrated into the international financial system, with potentially more rapid transmission of shocks to the goods markets. The process of internationalization of Mexican markets is likely to intensify in the next few years, including as a result of the prospective North American Free Trade Agreement, currently under negotiation.

Given the orientation of this paper, it does not discuss in any detail the specific form of the required economic and financial policies. Suffice it to say that the key issue concerns the sustained implementation of the authorities' policies to improve further the supply responsiveness and growth performance of the economy, in the context of financial stability. This would reinforce the implementation of careful debt management policies seeking essentially to avoid a renewed process of over-borrowing and to reinforce the move in favor of non-debt creating foreign capital inflows (e.g., foreign direct and portfolio investments and the repatriation of flight capital).

b. Selected aspects of debt management policies

(1) Credit enhancements

The use of collateralization and other CE techniques in the initial re-entry issues strengthened Mexican entities' ability to overcome high levels of market risk aversion. At the same time, however, the continued use of such techniques may involve potentially significant costs and should be carefully monitored.

Collateralization techniques should be used only by entities who have already strengthened their underlying financial position. In effect, unless the borrowers' fundamentals are sound--with respect to both actual and prospective creditworthiness and the transfer risk associated with the country's economic and financial conditions--CEs will not improve in a lasting manner market perceptions of risk. Even in circumstances where fundamentals are sound, the benefits of CEs should be assessed in terms of their overall impact on liquidity management. By pledging existing assets or future receipts, borrowers may lose financial flexibility in future, with potentially adverse implications in the event of short-term liquidity problems. Accordingly, it is important that the use of CEs be based on an intertemporal maximization process. This would need to take account of, inter alia, the immediate gains in terms of lower financing costs, the correlation between the borrowers' expected stream of receipts and expenditures, and possible costs due to the deterioration in the relative status of creditors with unsecured claims. Indeed, under certain circumstances, wide-scale resort to CEs could impair rather than improve certain borrowers' prospects for sustaining their return to voluntary capital market financing. Moreover, this could have contagion effects for other entities accessing the market, thereby increasing their borrowing costs and raising public policy issues.

An application of the above considerations to Mexico would suggest that, with the authorities' sustained implementation of economic and financial policies to reduce market perceptions of transfer risk, the recent reduction in the use of collateralization by established Mexican entities should continue. The immediate costs in terms of borrowers accepting less favorable interest rate and fee structures, is offset by the gains accruing from avoiding the potentially escalating costs of CEs. At the same time, care should be taken to ensure that the uses of CEs is not generalized to include firms that are yet to strengthen their financial positions. Given potential adverse externality effects for other Mexican borrowers and possible market information failures, there could be a case for continued Government involvement, particularly in the initial stages of market re-entry. This could include the monitoring of borrowing amounts and terms and the provision of information to actual and prospective borrowers to assist in evaluating the potential net costs of CEs. 1/

(2) Risk management techniques

In its earlier discussion of the origins of Mexico's debt problems, the paper alluded to the impact of adverse developments in international oil prices and interest rates. As shown in Charts 9-11, the Mexican economy has also been exposed to considerable fluctuations in these key exogenous variables since the emergence of the debt crisis. 2/ The maintenance of relatively "open positions" in such circumstances allows for the volatility in exogenous variables to be quickly translated into the country's international obligations and receipts. Moreover, estimations of simple correlation coefficients for this period indicate that adverse

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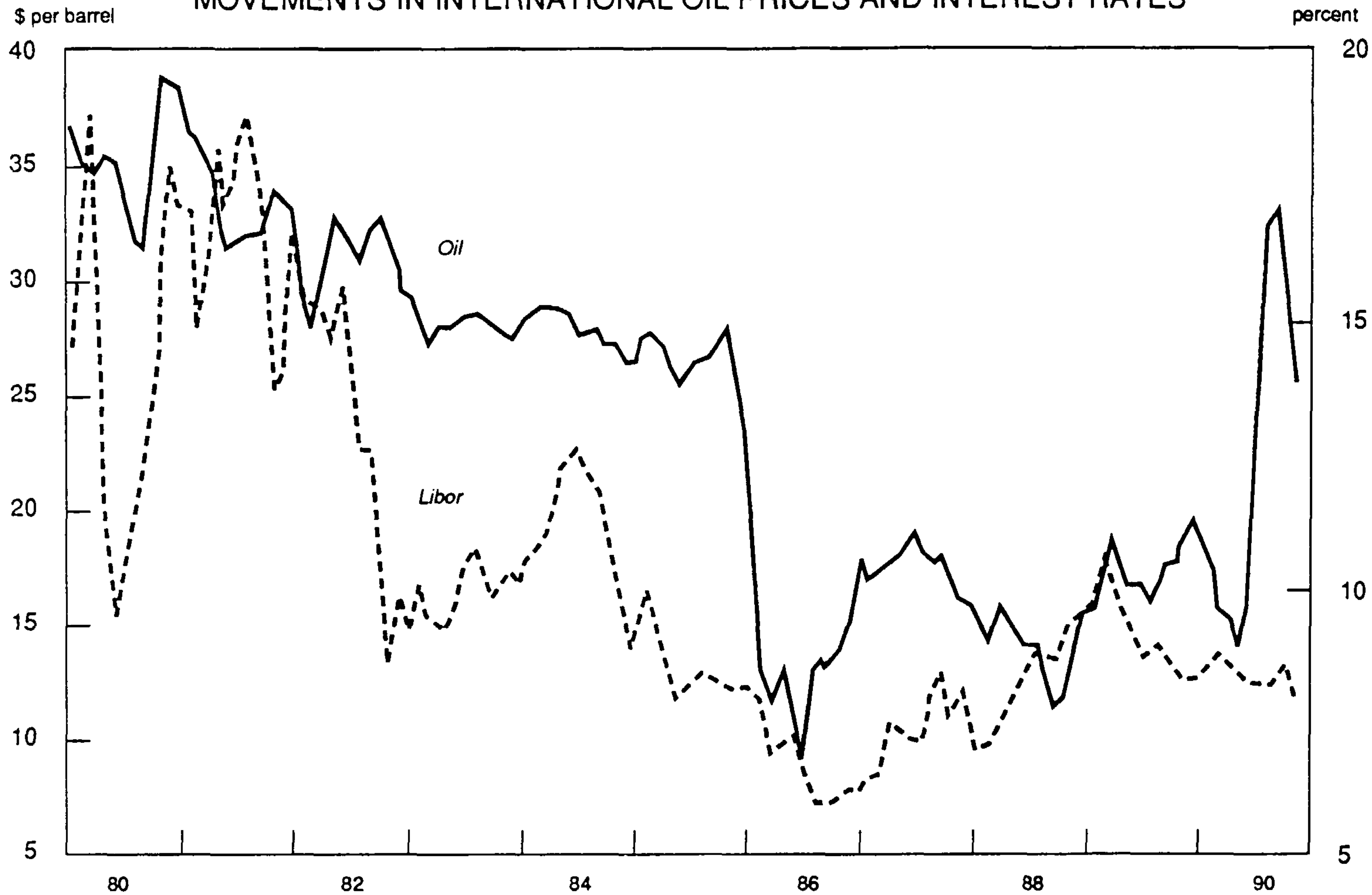
1/ Within the level of allowable CEs, consideration may also be given to mechanisms for reducing the costs of providing a unit of collateralization. For example, this could involve evaluating the scope for pooling arrangements which, in turn, depends on the expected correlation among individual default risks.

2/ The volatility displayed in Chart 10 is measured in terms of the standard deviations over the preceding two years for U.S. dollar-denominated oil prices and interest rates. This measure was used in the general risk management discussion contained in Mathieson, Folkerts-Landau, Lane and Zaidi (1989). Chart 11 displays changes in ex-post measures of real international interest rates.

CHART 9

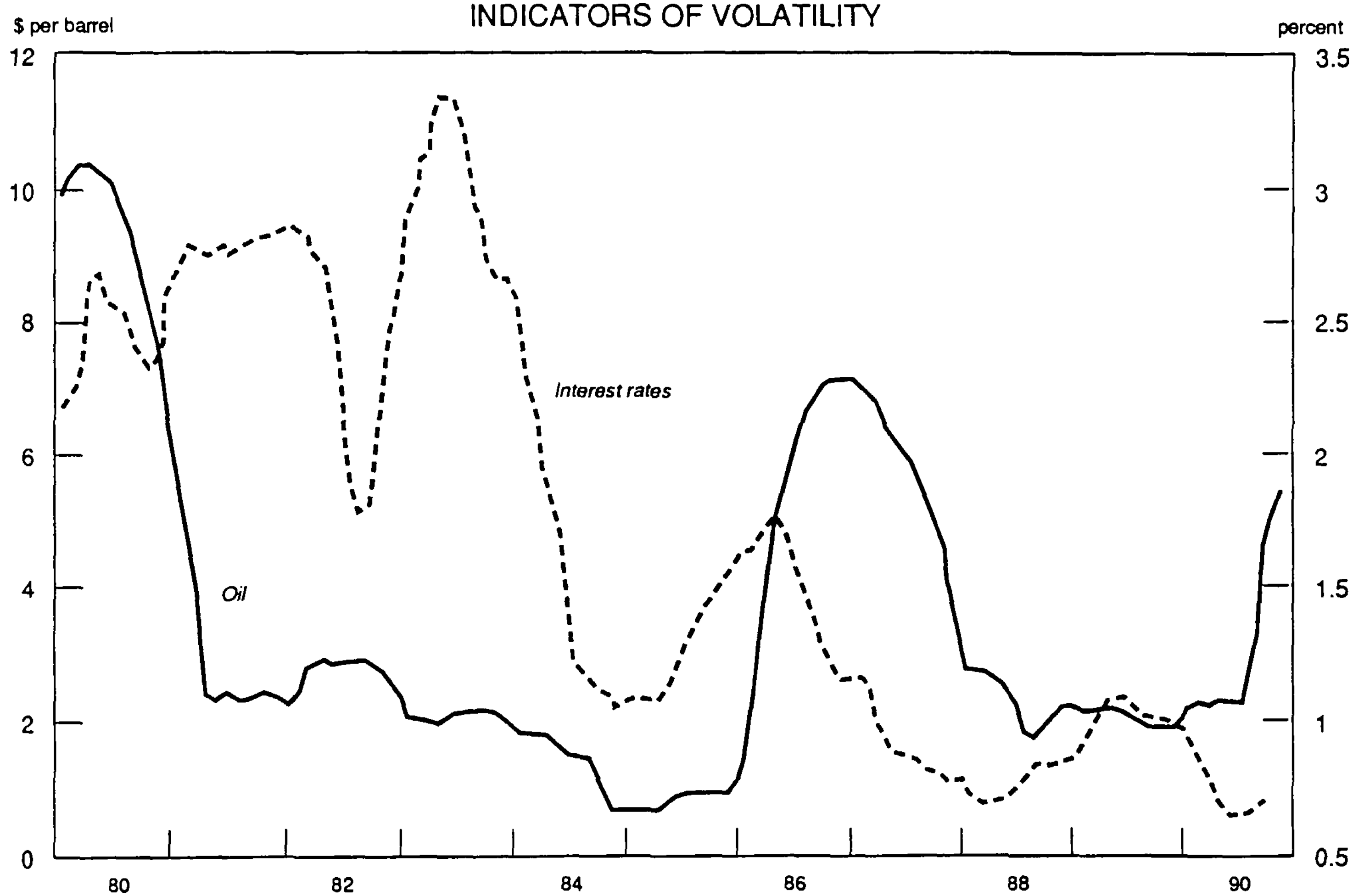
MEXICO

MOVEMENTS IN INTERNATIONAL OIL PRICES AND INTEREST RATES



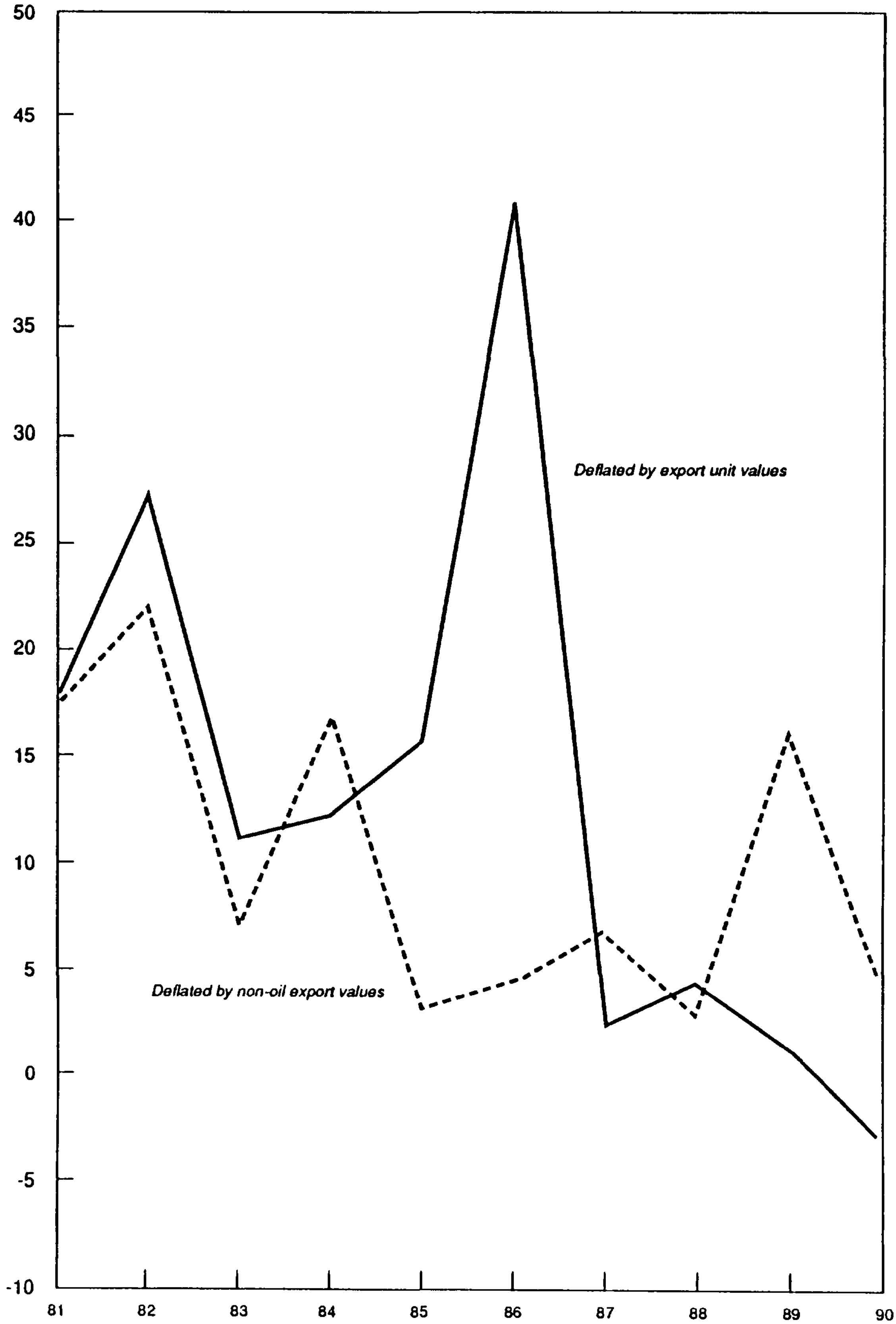
Source: IMF

CHART 10
MEXICO
INDICATORS OF VOLATILITY



Source: IMF

CHART 11
MEXICO
INDICATORS OF REAL INTEREST RATES
(In percent)



Source: IMF

developments in one of the variables were not offset, on average, by favorable developments in the other. 1/

In recognition of the above, Mexico has taken steps recently to reduce its vulnerability to exogenous price changes. As noted earlier, the 1990 bank package has enabled the central government to lower its interest rate risk through agreement on a fixed below-market rate on an important portion of its outstanding indebtedness. The authorities have also reduced the country's exposure to international oil price movements through sustained export diversification. 2/ Nevertheless adverse exogenous price movements would have a significant impact on the country's prospects. 3/ Accordingly, as recognized by the authorities, further steps in these areas would be beneficial, contributing to an improvement in country transfer risk.

It may be noted that between December 1990 and end-February 1991, the Mexican authorities sold futures contracts in the oil market covering about three months of crude oil exports. The pricing of these operations is reported to be above the central budget assumption of US$17 per barrel, leading a Finance Ministry official to state that "it is extremely important for us that investors know that, no matter what happens to the price of oil, the economic program is on for 1991. Regardless of what happens, we've got $17 a barrel." 4/

The reduction in country transfer risk has also facilitated non-government borrowers' access to market-based risk management instruments. 5/ This should allow, inter alia, for Mexican corporate issuers of variable interest rate notes to improve their management of interest rate risk through the use of forward, swap or contingent

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1/ Specifically, the correlation coefficient for changes in monthly U.S. dollar-denominated international oil prices and LIBOR interest rates amounts to 0.02; it falls to minus 0.2 when account is taken of the average lag in LIBOR interest rate adjustments.

2/ The share of oil receipts in total exports (including in-bond transactions) has declined from an average of over 70 percent in 1980-82 to an estimated 30 percent in 1988-90.

3/ For example, computed on the basis of 1990 oil exports, a 10 percent decline in oil prices would be associated with a US$1 billion loss in export receipts on an annual basis. On the same basis, a 1 percentage point rise in LIBOR would involve incremental interest obligations of some US$0.7 billion.

4/ Moffett and Truell (1991). At the same time, the authorities have set up a contingency fund in which the windfall oil and privatization receipts have been deposited.

5/ Several of these instruments involve the borrower making future payments under certain states of the world (e.g, in the case of a swap where the borrower agrees with its counterparty to exchange a string of certain types of payments obligations for other types of payments obligations).

contracts. 1/ For certain borrowers, such activities could be complemented by commodity hedging operations, particularly through future market transactions. This would be particularly relevant for exporters of commodities (e.g., the copper companies) or manufacturing enterprises that rely heavily on imports of certain commodities (e.g., glass producers). Increased commodity price and interest rate hedging is an appropriate goal within a framework that assesses the extent of such operations taking into account their market costs and their administrative requirements.

VI. Concluding Remarks

The paper examined the evolution of Mexico's bank debt restructurings since the outbreak of debt servicing problems in 1982. It analyzed their development away from a liquidity-based cash flow approach and toward one placing greater emphasis on the need to address the adverse impact of a growing stock of indebtedness on private sector investment and growth. When implemented in the context of a comprehensive economic adjustment program, the adaptations in debt policies played a critical role in facilitating Mexico's return to voluntary capital market financing--the latter constituting a fundamental component of the economy's progress toward medium-term viability.

Mexico's 1990 financing package with commercial banks played an important role in improving market perceptions of country transfer risk. Thus, although its direct immediate financial impact was relatively limited, there are indications that, together with the sustained implementation of sound policies, it reduced concerns about Mexico's indebtedness. This was reflected, inter alia, in a sharp reduction in domestic real interest rates and a fall in secondary market yields on external loan and bond claims on Mexico. The associated restoration of access to voluntary capital market financing was accompanied by a steady improvement in market terms, including a sharp fall in the risk premia paid by Mexican borrowers. Large repatriation of flight capital and increased foreign direct investment inflows reinforced the beneficial impact on the economy's private investment and growth performance.

As recognized by the authorities, the consolidation of Mexico's return to voluntary credit markets requires, inter alia, the maintenance of sound economic and financial policies and responsive debt management polices. As regards the latter, the paper analyzed the importance of careful monitoring of the risks inherent in re-entrants' reliance on credit enhancements; beyond a certain stage, these enhancements could impair rather than improve market access. The paper also noted the merit of Mexican borrowers making greater use of financial risk management techniques to reduce further their exposure to adverse exogenous price developments. As was the case for past

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1/ Additional information is contained in Mathieson, Folkerts-Landau, Lane and Zaidi (1989).

aspects of Mexico's debt management policies, these actions are likely to have effects that go well beyond the country's economic and financial prospects. Thus, it is probable that Mexico will continue to influence other developing countries' approach to debt management, particularly through "demonstration effects."

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