

**Mexico's Balance of Payments Problems
(1970—1985) : An Analysis of External
and Internal Causes.**

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CERTIFICATE

This is to certify that the dissertation entitled "MEXICO'S BALANCE OF PAYMENTS PROBLEMS (1970-1985) : AN ANALYSIS OF EXTERNAL AND INTERNAL CAUSES" by Ms. Sundrani Nandni Chetan, is her own work and has not been submitted for the award of any degree to this or any other University. We recommend that this dissertation may be placed before the examiners for consideration of award of the degree of Master of Philosophy (M.Phil.) of Jawaharlal Nehru University.

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INTRODUCTION

The evolution of Mexico's balance of payments since 1973 has been markedly different from what it had been during earlier decades. A single fact vividly illustrates this phenomenon: the net flow of foreign public debt which had averaged around \$200 million a year throughout the previous two decades, increased to more than \$1.6 billion in 1973 alone, and from then on, kept growing rapidly. Thus the stock of the foreign public debt which was \$6.8 billion at the end of 1972, reached almost \$21 billion in 1976 and soared to almost \$58 billion by 1982. Taking into account the foreign debt of commercial banks and private sector firms, the country's total external debt had reached \$27.5 billion by late 1976, and stood at \$84.1 billion six years later. Not surprisingly, the last two financial crises experienced by Mexico (1976 and 1982) have been closely linked to the size of the external debt. This capital inflow financed the current account deficit which increased from \$3.4 billion to a peak of \$13.9 billion in 1981. Direct investment flows have made only a modest contribution to financing the current account deficit and capital flight. From 1973, the negative values for the item "other capital flows and errors and omissions" of the balance of payments suggest considerable capital flight. Keeping the above fact in mind, it becomes imperative to study the balance of payments problems of Mexico in the context of the debt crisis.

According to Robert. Z. Aliber ("A Conceptual Approach to the Analysis of External Debt of the Developing Countries", World Bank Staff Working Paper

No. 421, World Bank, Washington D.C., October, 1980) crises^e occur when the "refunding mechanism" breaks down, either because the lenders are reluctant to extend new credits or the borrowers are reluctant to borrow due to the very high short term effective interest cost. 1982 marks the outbreak of the debt crisis for Mexico, when in August it ran out of foreign exchange and announced a ninety day moratorium on the repayment of principal due on its external public debt.

The central objective of this study is to analyse the internal and external factors responsible for the onset of the debt crisis in Mexico. This is important both for understanding the problem and making policy prescriptions. Essentially, the explanations can be divided into two groups: those pointing to the unexpected changes in the world economy such as the world recession, low prices of primary commodities, particularly oil and high short term interest rates and those focussing on the sustainability of the domestic macroeconomic policies followed in the seventies and the unwillingness or inability to adjust early enough to the economic realities of the 1980's. Keeping the above viewpoints in mind, the analytical focus will be on summarizing the macroeconomic experience of the country since the early 1970's to the mid-1980's with emphasis on the interrelationships of external factors, balance of payments difficulties and domestic policy actions and responses.

The first chapter will concentrate on the contribution of external shocks to the emergence of the debt crisis. Although the credit crunch faced

by Mexico was certainly the most dramatic event of 1982, in reality the financial crisis extended far beyond Mexico. The evolution of the size, structure and terms of the foreign debt of developing countries will also be studied.

The second chapter will evaluate the contribution of domestic macroeconomic policies of Mexico to the balance of payments problems. The review of past events will be subdivided into two periods, 1970-77 and 1978-81. The analysis of domestic macroeconomic policies will be preceded by a look at the current account and its driving forces, the capital account and some aspects of foreign debt management. The events of 1982, the year which signals the outbreak of the crisis will be recapitulated, followed by a discussion of the policy instruments and behaviour of the economy during the adjustment programme from 1983 to mid-1985. The chapter will end with a brief outline of events from 1985 upto the present.

The third chapter will discuss the roles of commercial banks and the International Monetary Fund (IMF) in the evolution of the debt crisis. The factors which encouraged the commercial banks to lend indiscriminately will be studied. The IMF not only provides its own resources, but often more importantly, it provides a seal of approval for national policies that encourage foreign lenders to untie their purse strings. In Mexico's case, since 1982 the foreign banks have conditioned new lending on the conclusion of successful agreements with the IMF. Thus, an evaluation of the IMF's role in the debt problem acquires great importance.

The fourth chapter will examine the likely developments in the balance of payments and external debt of Mexico in the medium term on the basis of a projection model that incorporates the influence of varying global economic conditions and domestic policies.

The fifth chapter sums up the conclusions that emerge from the analysis in the preceding chapters with respect to the relative importance of external and internal variables in the genesis of the debt crisis.

INTERNATIONAL DEBT: THE ROLE OF EXTERNAL SHOCKS

Introduction

The external payments crisis faced by a number of developing countries in 1982 affected both the ability of some of these countries to meet their scheduled debt service obligations and the willingness of their creditors to extend sufficient financing to assure the viability of their external positions. Such difficulties resulted from a number of related factors: cumulative changes in the magnitude and structure of these countries' borrowing since the early 1970's; inappropriate domestic policies; and an unusual conjuncture of adverse external developments. The greater vulnerability of adverse external developments inherent in an increasing dependence on commercial bank financing with variable interest rates and on loans with shorter maturities became apparent when borrowing countries faced a combination of higher oil prices, extraordinarily high real interest rates, and a fall in the prices and volume of their exports during the world recession.

This chapter begins by describing the evolution of the size and composition of external debt of non-oil developing countries from 1973 to 1984. It then examines the contribution of high oil prices and real interest rates, recession and the appreciation of dollar to the emergence of widespread debt servicing difficulties.

*Total Debt, Debt Structure and Debt Service
Important Trends from 1973 to 1983.*

At the end of the Second World War, virtually all international capital flows other than trade credits were official capital, mostly on

concessional terms. Accompanying the revival of war torn economies and the liberalization of trade in the 1950's, private international capital flows grew rapidly. In the same decade, some equity capital flowed to developing countries, but the main longer-term private flows were between North America and Western Europe. While these flows continued to predominate in the 1960's, a few rapidly growing developing countries began to borrow from private commercial banks. With high-return investments and rapid growth, most of these countries were able to service their debts and established excellent reputations as borrowers. Although developing countries as a group continued to rely on official flows, a few, primarily middle income countries in Latin America and East Asia shifted markedly towards the private international capital markets and others began to follow.

Thus, in the late 1960's and early 1970's it was well accepted that developing countries engage in international borrowing to raise the rates of investment and economic growth. However, the failure to control adequately the growth, the structure and terms of external borrowing could lead to balance of payments difficulties and ultimately a setback to economic development, e.g., while external indebtedness may at times grow more rapidly than output, the ratio of the debt to the gross national product (GNP) cannot increase indefinitely without threatening the solvency of the debtor, namely the ability to service debt out of current national income. Similarly, a continued tendency for the ratio of debt to exports to grow is a sign that the economy will eventually experience liquidity problems- that it will not be able to

generate sufficient foreign exchange to meet both debt service requirements and at the same time pay for essential imports.¹

Important indicators of the structure and terms of debt include the following:

1. The proportion of total external debt at commercial terms.
2. The share of total external debt at variable interest rates.
3. The average maturity of the debt.
4. The share of short term debt (having an original maturity of one year or less) in the total. The terms and maturity of the debt affect the ratio of debt service payments (total interest payments plus amortization on medium and long term debt, where amortization is the actual repayment of principal) to exports of goods and services.

Total External Debt

The rapid growth of international debt in the 1970s and early 1980s is shown in Table 1.1. The outstanding debt in nominal terms of 142 non-oil developing countries (according to IMF all developing countries except those whose oil exports equal at least 100 million barrels per year) rose from \$ 130 billion in 1973 to \$ 795.6 billion in 1984, an increase of approximately six times. Much of the developing countries' debt is owed by a relatively small number of countries. The twentyfive "major borrowers" accounted for 79 per cent

1. For a discussion of the concepts of 'solvency' and 'liquidity' see Robert Z. Aliber, "A Conceptual Analysis of External Debt of the Developing Countries", World Bank Staff Working Paper No.421 (The World Bank, Washington, D.C., U.S.A., October 1980).

of the external debt of all developing countries in 1983. The ten largest borrowers accounted for over 50 per cent, and the five largest (Brazil, Mexico, Argentina, Korea and Indonesia) accounted for more than 33 per cent.² Countries in the Western Hemisphere accounted for the largest portion of external debt outstanding (44 per cent), followed by Asia (25 per cent) and Africa (10 per cent).³

To properly assess the nominal magnitudes cited above, it is necessary to relate them to the real flows of goods and services. One commonly used technique for doing so is to deflate them by an index of export prices of the borrowing countries as a measure of the opportunity cost of servicing the debt. For instance, while the total external debt of the non-oil developing countries grew at an average annual rate of 18 per cent in nominal terms between 1973 and 1983 and that of twentyfive major borrowers at a rate of 17 per cent, the debt of these groups deflated by an index of their export unit values increased at annual rates of only 9 per cent and 8 per cent respectively.⁴ But still the growth rate of real debt exceeded both, the growth rate of real gross domestic product of these countries (4.4 per cent) and, the expansion of export volume (7.1 per cent). Thus, while high inflation rates during the 1970s moderated the burden of debt outstanding, the rise in real debt over the entire 1973-1984 period still exceeded the growth of real resources.⁵

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2. Kristin Hallberg, "International Debt : Origins and Issues for the Future" in Michael and P. Claudon ed., World Debt Crisis : International Lending on Trial (Cambridge, Massachusetts, 1985), p.7.
 3. International Monetary Fund (IMF) : World Economic Outlook : A Survey by the Staff of the IMF, Occasional Paper 27, (Washington D.C., April 1984)p.60.
 4. Ibid., p.60.
 5. Kristin Hallberg, n.2.p.7.

The principal summary statistics generally used to describe trends in external debt are the ratios of total debt and debt service to exports of goods and services although as will be shown later, this approach provides only a rough indicator of an economy's ability to sustain a particular external debt burden. The ratio of external debt to exports of non-oil developing countries rose from 115.4 per cent in 1973 to a peak of 159 per cent in 1983. (See Table 1.2). For Africa, the debt to exports ratio rose from 71.5 per cent in 1973 to 167.7 per cent in 1984, for Asia it fell from 92.9 per cent in 1973 to 84.2 per cent in 1984 and for the Western Hemisphere it rose from 176.2 per cent in 1973 to 273.3 per cent in 1984. Thus, the debt to export ratios were modest for Asia when compared to those for Western Hemisphere and Africa. Moreover, all of the net increase occurred after 1980. Rapid growth in debt between 1973 and 1980 coincided with generally buoyant growth in exports, whereas the continued expansion of outstanding debt after 1980 was combined with a slowdown in export growth caused by world recession.⁶ The ratio of debt to exports declined slightly to about 154.2 per cent in 1984 as a result of a slow down in the growth of total debt and a modest recovery in export growth.

The ratio of debt service payments⁷ to exports of goods and services of the nonoil developing countries increased moderately from 15.9 per cent in 1973 to 17.6 per cent in 1980, but after that grew rapidly to 24.1 per cent in 1982 (See table 1.3) under the impact of the sharp increase in world interest rates,

6. *A more detailed analysis of the impact of recession on external payments difficulties follows later.*

7. *Includes all interest payments and amortization payments on long term debt (i.e. with an initial maturity of twelve months). Does not include service payments on Funds drawings.*

the growth in the proportion of debt contracted at market rates⁸ and the expiration of grace period for the loans contracted in the mid-1970s.⁹The debt service ratio declined to 21.1 per cent in 1983 as a result of substantial debt rescheduling.

The above mentioned summary statistics relate debt magnitudes to a country's current capacity to earn foreign exchange, but they are only rough indicators of a country's ability to service its external debt. For instance, the needed foreign exchange could also be generated by a reduction in imports.

An alternative measure would be to relate debt and debt service payments to an economy's overall productive capacity, as measured by its Gross Domestic Product (GDP). However, these indicators can be subject to significant distortions when exchange rates and rates of domestic inflation are out of line. The ratio of external debt to GDP for all non-oil developing countries rose from 22.4 per cent in 1973 to 36.8 per cent in 1984. Regionwise, Western Hemisphere led with a ratio of 47.3 per cent in 1984, followed by Africa (39.9 per cent) and Asia (22.8 per cent), (See Table 1.2).

Within the above mentioned aggregates, the experience of different regions has varied considerably. In 1983, debt service ratios (after the impact of rescheduling) were 43 per cent for the non-oil developing countries in the Western Hemisphere region, about 23 per cent for African countries, and only

8. For evidence see sections on interest rates and on structure of debt of this chapter.

9. International Monetary Fund, "External Indebtedness of Developing Countries", Occasional Paper 23, (IMF, Washington, D.C., 1981), p.3.

11 per cent for Asian countries. The composite debt service ratio has risen much less sharply for Asia probably because of earlier adjustment of current account positions undertaken by countries in this area and also because of the low creditworthiness of low income borrowers in Asia coupled with a policy of adhering to official development assistance.

Estimates of real debt service payments may be found by deflating interest plus amortization payments by either export or import unit values. Scaling by export unit values provides an indicator of a country's ability to service its foreign debt. Deflating debt service by import unit values gives a measure of the opportunity cost of debt : the imports that are foregone in order to meet debt service payments. Over the period 1973-84, debt service deflated by export unit values increased at an 8.8 per cent annual rate, while debt service deflated by import unit values rose at a more moderate rate of 6.4 per cent per year since import prices rose faster than export prices for non-oil developing countries.¹⁰ Thus, both debt service burdens and the opportunity cost of debt were rising.

Certain key debtor countries' debt trends have shown a greater increase in debt burden than is apparent in the aggregate data just examined. Thus for the three largest debtors, debt growth has been far greater than the fivefold (nominal) multiple for all developing countries during 1973-82 (see Table 1.4). For Brazil, the rise has been a multiple of 6.4 to 88 billion, for Mexico a multiple of 9.5 to \$ 82 billion; and for Argentina, a multiple of 5.9 to \$ 38 billion. The debt service ratio has risen far more dramatically for these leading debtors

10. *Kristin Hallberg, n.2, p.7.*

than for developing countries on the average. Compared with a rise from 16 per cent in 1973 to approximately 25 per cent by 1982 for all non-oil developing countries, Brazil's debt service ratio rose from 36 per cent to 87 per cent, Mexico's from 25 per cent to 58 per cent and Argentina's from 21 to 103 per cent. Moreover, although these countries' relative debt burdens gradually increased through the 1970's, there was an especially sharp rise in 1982. Thus, the ratio of net debt (debt minus foreign reserves) to exports of goods and services rose from 257 per cent in 1981 to 365 per cent in 1982 in Brazil, from 209 per cent to 249 per cent in Mexico, and from 275 per cent to 354 per cent in Argentina.

The data for individual countries also reveals cases where the debt burden has been kept at a relatively low level. Thus Korea had a ratio of net debt to exports of only 104 per cent in 1982, Indonesia 86 per cent, and Venezuela 104 per cent - all well below the average for developing countries.

Mario Henrique Simonsen, former Planning Minister of Brazil, has proposed a useful summary criterion to determine whether a country's debt-servicing burden is improving or getting worse.¹¹ According to this criterion, for a country's debt burden to remain the same, its export earnings should grow at the same rate as the interest rate. The logic behind this rule is that debt increases by the amount of past debt multiplied by the interest rate because this amount represents the interest due on past debt. If the ratio of debt to

11. Mario Henrique Simonsen, "The Financial Crisis in Latin America", (Rio de Janeiro : Getulio Vargas Foundation, 1983) cited in William R. Cline, International Debt : Systemic Risk and Policy Response, Institute for International Economics (Washington D.C.; Distributed by the MIT Press, Cambridge, Massachusetts, 1984), p.7.

exports is to remain the same, exports must also grow by as much as the interest rate.¹²

The sea change in debt-servicing viability in 1981-82 may be seen by examining this summary criterion. In Table 1.5, a typical interest rate on developing country loans -- LIBOR (London Interbank Offer Rate) plus a spread of 1 per cent -- is compared to the nominal export growth rate for 1973-82. Until 1980, the interest rate averaged 10.2 per cent, while the growth rate of exports for non-oil developing countries averaged 21.1 per cent. The interest rate test was clearly being fulfilled. But in 1981-82, the interest rate averaged 15.8 per cent, while export growth in these countries averaged only 1.0 per cent. The actual decline of exports in 1982, along with high interest rates resulted in the Simonsen's criterion being unfulfilled. The declines in average export growth were severe for most of the countries listed that did experience debt-servicing difficulty in 1982-83 (Argentina, Brazil, Chile, Mexico, Venezuela). The table also shows that the Simonsen criterion was also violated in 1975. In that year the global recession caused slow export growth. However, unlike the 1981-82 period, there was no widespread occurrence of debt servicing difficulties in 1975. The difference between the interest and export-growth rates was smaller (6.6 per cent in 1975 compared with an average of 14.8 per cent in 1981-82), reflecting the fact that the 1975 recession was less severe. Moreover, the debt burden was also milder in 1975 (as measured by debt relative to exports and GDP and the debt-service ratio, See Table 1.2 & 1.3).

12. *This rule no longer applies when the country is running a trade surplus and transferring net resources abroad rather than receiving them. In that case the debt does not grow at the interest rate and export growth may be more modest.*

Changes in The Structure and Terms of Debt

The changes in the composition and terms of developing countries' debt over the past decade have greatly increased their vulnerability to developments in external financial markets. The decreased importance of private direct investment flows relative to external borrowing implies a reduction in the share of risk borne by foreign savers and an increase in the risk borne internally, since payments on private direct investment are required only if the investment earns a return, whereas debt service payments must be made irrespective of the use made of the resources generated by borrowing.

Changes in the Source of External Borrowing :

At the end of 1972, the external debt of developing countries was almost evenly divided between official and private creditors. Following the first oil shock, developing countries turned more to private creditors to finance their current account deficits. Consequently, the proportion of long term debt owed to private creditors rose from 54.3 per cent in 1973 to 62.6 per cent in 1983. (See Table 1.6). Funds from the syndicated loan market showed the strongest growth : loans from commercial banks greatly surpassed the more traditional private debt sources such as bonds and supplier credits (See Table 1.7).

Analysing the trends regionwise, it is evident that the greatest tendency to rely on private creditors for financing the current account deficits existed in the Western Hemisphere. For the Western Hemisphere as a whole, the proportion of total outstanding long term debt owed to private creditors rose from 75 per cent in 1973 to 81.3 per cent in 1983. For Mexico, debt owed to private creditors out of the total long term debt increased from 64 per cent

in 1973 to 84 per cent in 1983.¹³ In contrast with the Western Hemisphere, in Africa the reliance on private creditors decreased from 51 per cent to 45.3 per cent of the long-term debt. In Asia, the amount of total long term debt owed to private creditors increased from 25.3 per cent to 46.9 per cent (See Table 1.6). From the above mentioned trends it is clear that Latin America was the problem area as the proportion of long term debt owed to private creditors was the highest. In Asia, although the proportion of long term debt due to private creditors had been rising, it was half that of the amount owed to private sources in Latin America.

Shift in the Maturity Structure

Since debt service consists of payments on the amortization of principal and interest charges, the maturity structure of loans owed has an integral role in determining yearly debt-service burdens. In the recent past, trying to limit their long term exposure, the banks have switched from offering long term and medium term loans to granting short term credits. Short term debt (original maturity of less than one year) for all non-oil developing countries rose from 13.1 per cent of the total to a peak of 20.5 per cent during 1973-84 (See Table 1.6). The share of short term debt in total external debt rose from 2.7 per cent in 1973 to about 11 per cent in 1983 for Africa. For Asia, it rose from 11.4 per cent in 1973 to a peak of 20 per cent in 1981 while for the Western Hemisphere it rose from 14.2 per cent in 1973 to 22.6 per cent in 1983. In the

13. World Bank, *World Debt Tables : External Debt of Developing Countries*, (Washington, D.C., U.S.A., 1988-89).

case of Mexico, the share of short term debt in total external debt rose from 17.5 per cent in 1971 to a peak of 30 per cent in 1982, the year the crisis erupted and then declined to 11 per cent in 1983.¹⁴

The growing proportion of short term debt in the total debt exacerbated the imbalance between the maturity structure of external debt and the investment that it financed and resulted in an increased vulnerability to the emergence of serious liquidity problems when creditors were reluctant to roll over their short term commitments. In addition to increased short term lending, the bunching of maturities had resulted in one half of the total debt of developing nations due to be repaid between 1982 and 1987.¹⁵

Change in the Cost of External Finance

The continued growth in the total debt, of the share of long term debt owed to financial institutions (from 17 per cent in 1974 to 28 per cent in 1982¹⁶) had a number of unfavourable consequences even though it helped to cushion these countries from the immediate effects of adverse external influences. Firstly, the shift towards greater reliance on borrowing at commercial terms magnified the impact of the sharp increase in nominal and real rates of interests. Secondly, since most bank lending takes place at interest rates linked to a variable base rate, the proportion of total debt of non-oil developing countries subject to variable interest rates increased substantially from 7 per cent in 1972 to 37 per cent in 1982.¹⁷ The share of variable interest rate

14. *Ibid.*

15. Christopher C. Carvounis, *The Debt Dilemma of Developing Nations : Issues and Cases* (London, 1984), p.25.

16. *International Monetary Fund*, n.3, p.63.

17. *Ibid.*, p.63.

debt was even higher for the group of major borrowers, reaching 42 per cent in 1982, although there were significant differences within the group; variable rate debt accounted for from one half to three quarters of the long term debt of major borrowers of Latin America, but for well under 10 per cent of the long term debt of countries that relied on official development loans (including Egypt, India and Pakistan).¹⁸ For Sub-Saharan Africa the share of total debt at variable interest rates increased from 9.4 per cent in 1973-74 to 20 per cent in 1981-82. For Asia, this share rose from 8.1 per cent to 38.1 per cent and for the Western Hemisphere it rose from 34.1 to 71.7 per cent over the same period. For Mexico the proportion of total public debt at variable interest rates increased from 40.1 per cent in 1973 to 76.2 per cent in 1982 (See Table 1.8).

The greatly increased proportion of debt at variable interest rates heightened developing countries' sensitivity to developments in world financial markets and the sharp increase in interest rates in the early eighties had an immediate and large impact on their debt service burdens.¹⁹

The Role of External Shocks

Oil Shocks of 1973-74 and 1979-80

The rapid growth in non-oil developing countries external debt since 1973 can be related to developments in their current accounts in the context

18. *Ibid.*, p.63

19. *A detailed analysis of the impact of interest rate increase on developing country debt burden follows later.*

of the oil price increases. The rise of OPEC oil revenues starting in 1973 is recorded in Table 1.9. The impact of the first price hike in 1973 is evident from the quadrupling of OPEC revenues in 1974. In 1975, revenue growth paused, reflecting the recession in principal oil producing countries; but after 1975, growth of revenues resumed at an appreciable, although decelerating pace, levelling off again in 1978. The renewed acceleration of prices in 1979, however, brought yet another upward leap of revenues as the decade drew to a close.

The emerging OPEC surplus after 1973 produced a dramatic shift in the global payments pattern. Industrial countries' combined current account surplus of \$20.3 billion in 1973, became a deficit of \$ 10.18 billion in 1974, while non-oil developing countries combined deficit increased from \$ 11.3 billion to \$ 37 billion in 1974 (See Table 1.10). Part of the developing countries' current account deficits were financed by reductions in reserves and by short term capital movements. Non-oil developing countries' net external borrowing went up from \$ 15.2 billion in 1973 to \$ 28 billion in 1974 and continued to increase throughout the 1970's with the exception of a levelling in 1976 and 1977 (See Table 1.11).

After the sharp deterioration in the current account balance of oil consumers in 1974-75, the current account positions of oil importers gradually improved. However, the second oil shock in 1979-80 again disrupted the financial flows. Oil exporting countries' current account surpluses rose from \$ 6 billion in 1978 to \$ 57 billion in 1979 and \$ 104 billion in 1980. Non-oil developing countries' combined current account deficit more than doubled from

\$ 42 billion in 1978 to \$ 98 billion in 1981 and the industrial countries again moved from a surplus to a deficit (See Table 1.11). The renewed borrowing needs to finance the non-oil developing countries' deficits occurred in a sharply changed external and internal environment. Further borrowing against debt capacity was difficult and the cost of financing was increasing.

For the non-oil developing countries, the value of oil imports rose from 6 per cent of total merchandise imports in 1973 to 20 per cent in 1980-82. Cline has calculated the cumulative additional costs of oil imports imposed on the net oil-importing developing countries by the oil price rises.²⁰ Table 1.12 presents these calculations.

The first column shows the value of net oil imports by these countries since 1973. The second column shows the amount that would have been paid for these imports if the price of oil had risen no more than the US wholesale price index after 1973.²¹ (By 1973 oil prices had already risen by 42 per cent from their 1972 level). As the table shows, the cumulative total of the additional expense on oil imports amounts to \$ 260 billion over the decade. This amount excludes an allowance for cumulative interest charges on each year's additional oil bill, which would have made the additional debt larger. On the other hand, the estimates refer to potential, not actual increases as it does not take account of offsetting factors, especially adjustment measures to reduce non-oil imports and increase exports.

20. *William R. Cline, n.11, pp.8-11.*

21. *This value equals column A times the ratio of the US wholesale price index to the index of oil prices, with both the indexes set at 100 for 1973.*

On both occasions on which oil prices increased, only a part of the widening of the current account deficit was attributable to the direct impact of higher oil prices. In fact, the deterioration in the balance of non-oil trade was almost as large as that on oil trade, as a result of slower growth in export markets and sharp increases in the cost of non-oil imports. Indeed, there was no close correlation between the level of a country's dependence on imported oil and the deterioration in its current account.²² This is not surprising, since not only did policy reactions vary substantially among countries, but the major shifts in relative prices substantially altered the pattern of consumption and investment expenditures and consequently the pattern of current account deficits. In particular, for the net oil exporters expectations of a continued rise in oil revenues led to the adoption of expenditure patterns that contributed to higher current account deficits and rising external debt (for e.g. Mexico). The fact that countries with recent debt servicing problems and the Fifteen highly indebted countries had positive oil trade balances from 1979 to 1984 (see Table 1.10) provides additional support for the argument that rising oil prices and payments difficulties were not inextricably linked.

Interest Rates

Another major external factor affecting developing countries' current account positions particularly during the late 1970s was the sharp increase in the cost and availability of financing from international credit markets.

22. *IMF, n.3, p.61.*

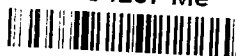
Borrowers had become accustomed to low real interest rates in the 1970s. For 1961-1970, London Interbank Offer Rate (LIBOR) on US dollar deposits minus the US wholesale price increase produced an average real interest rate of 4.1 per cent. For 1971-80 this average was - 0.8 per cent : real interest rates were negative on average for the decade.²³ However, in 1980, there was a sharp increase in the interest cost of floating interest debt to developing countries along with the weight of floating interest debt in total debt rising from under 5 per cent in 1972 to over 40 per cent in 1982.²⁴ The annual interest payments and other charges as a percentage of disbursed floating interest debt at the beginning of the year rose from 8.3 per cent in 1972-73 to 17.1 per cent in 1982. (See Table 1.13). The total net floating interest debt has been, though decreasingly, concentrated in a few countries. Brazil and Mexico taken together accounted for 62 per cent of the total net floating interest debt in 1984 (down from 78 per cent in 1978). Adding South Korea, Argentina and Chile, this share increased to 87 per cent.²⁵ Since the short term effects of fluctuating interest rates manifests itself essentially through the net floating interest debt, increase in LIBOR rates during 1978-82 and subsequent declines since mid-1982 have therefore dramatically affected countries with the largest amount of net floating interest debt.

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23. *IMF, International Financial Statistics Yearbook, (Washington, D.C. USA, 1980).*
24. *OECD, External Indebtedness of Developing Countries : A Survey, OECD, (Paris, 1984), p.36.*
25. *Ibid., pp.37-38.*

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Real interest rates rose sharply after 1980, measured as the LIBOR on three month US dollar deposits less the rate of change of the GNP deflator in the United States. The real interest rate increased from an average of only $\frac{1}{2}$ per cent during 1974-75 to more than 7 per cent in 1981 and 1982, and it was still over 5 per cent in 1983. The sharp increase in nominal interest rate caused the average interest rate on the total long term debt of developing countries to rise from 4.5 per cent during 1973-77 to 8.5 per cent in 1981-82; deducting U.S. inflation the real interest rate on this debt increased from - 6 per cent to 3 per cent over the same period.²⁶ The contrast between interest rates during 1974-78 and 1981-82 would be more dramatic if the real interest rate is defined in terms of LIBOR less the rate of change in export prices of the non-oil developing countries.²⁷ The real burden of debt servicing increased as the world economy moved from an inflationary to a disinflationary environment. There was a sharp increase in the ratio of interest payment to exports. This ratio more than doubled during 1973 and 1983 (See Table 1.3) from 6.1 and 13.0 per cent. For Africa the interest payments ratio increased from 2.9 to 8.7 per cent, for Asia it increased from 11.1 to 29.8 per cent during the same period. For Mexico, interest payments ratio of public and publicly guaranteed debt rose from 7.4 per cent in 1970 to 23.1 per cent in 1983.²⁸ Higher interest rates were largely caused by the high budget deficits, tight monetary policy in the US and the drop in the international placements of OPEC.²⁹

26. *William R. Cline, n.11, p.12*

27. *IMF., n.3., p.65.*

28. *World Bank, n.13*

29. *V.R. Errunza, and J.P. Ghalbouni, "Interest Rates and the International Debt Crisis", Banca Nazionale del Lavoro Quarterly Review, no.157, (Rome, June 1986), p.233.*

Applying the estimated excess interest costs in 1981 and 1982 to the year end debt of 1980 and 1981 respectively, Cline has estimated that total excess interest payments on developing country debt amounted to \$ 41 billion in 1981-82.³⁰ An OECD survey estimates that a one per cent decrease in LIBOR would represent for non-OPEC, non-OECD developing countries, a change in net interest payments and thus in their current deficit of \$ 1.86 billion (\$ 554 million for Mexico, \$ 593 million for Brazil, \$ 202 million for Argentina, \$ 166 million for South Korea and 106 million for Chile).³¹

Recession

The recession in the industrial countries in 1980-82 not only contributed to the weakening of non-oil primary commodity prices and the decline in oil prices from 1982 onwards, but it also led to a slowdown in growth, and in some instances even an absolute decline in export volume. The resulting fall in the purchasing power of developing countries' exports was concentrated heavily in the traditional oil exporters in the Middle East (which are not capital importers) while Africa was also quite severely affected. For other groups, the purchasing power of exports continued to grow, although at a much slower rate than in the 1970s.

Real growth in industrial countries which had averaged 3.2 per cent annually between 1973-79 (see Table 1.14) fell to 1.2 per cent in 1980-81 and 1.1 per cent in 1982. The real growth in non-oil developing countries fell from 4.7 per cent in 1980 to 1.7 per cent in 1982 and only 0.3 per cent in 1983. In Africa and

30. William R. Cline, n.11, p.12.

31. OECD, 1984, n.22, p.38.

the Western Hemisphere, growth fell from 7 per cent to -2.5 per cent and from 5.7 per cent to - 2.3 per cent respectively during 1980-83. In contrast, the Asian developing countries maintained a positive real growth during 1980-83 of 5.85 per cent during the same recessionary period.

The growth rates of the export earnings of non-oil developing countries also declined as a consequence of the recession. The annual average growth rate of developing countries' exports fell from 34 per cent in 1979-80 to -1.3 per cent in 1980-81 and to -7.7 per cent in 1982-83. In Africa, the rate of growth of exports fell drastically from 36.1 per cent in 1979-80 to -20.5 per cent in 1980-81 and then demonstrated a recovery to -8.9 per cent in 1982-83. In Latin America, the export growth rate fell from 28.9 per cent in 1979-80 to 7.1 per cent in 1980-81 and then to -9.8 per cent and -1.5 per cent in 1981-82 and 1982-83 respectively. In Mexico, the rate of export growth declined from 73.5 per cent in 1979-80 to 0.4 per cent in 1982-83 (see Table 1.15).

The worldwide recession caused a drop in demand for all commodities. The drop in demand may not have been very large in volume terms, but it was sufficient to change a seller's market to a buyer's market resulting in a very significant drop in commodity prices. Although not extremely severe, the drop in oil prices was the most symptomatic of the problem because most analysts had expected the price of oil to continue to increase. Between 1981 and 1983, oil consumption dropped about 7 per cent from 35.2 million barrels per day (mbd) to 32.9 million barrels per day (see Table 1.16). This weakening of demand was accompanied by a decrease in prices from \$ 35.01 per barrel in 1981

to \$ 28.72 barrel in 1983, an 18 per cent decrease. The total oil revenues thus dropped from \$ 1,236 million to \$ 945 million per day between 1981 and 1983, a drop of 23.6 per cent or \$ 291 million per day. Since oil production in non-exporting countries was increasing during this period, most of the drop in consumption had to be absorbed by oil exporting countries.

The drop in prices was also severe for most other commodities. Between 1980-83 the price of copper dropped 23.2 per cent, of iron 12.2 per cent, of beef 30 per cent, of sugar 56.9 per cent, of coffee 15.1 per cent and of cocoa 18.6 per cent. In fact the IMF index for the average prices of commodities excluding oil dropped 19.9 per cent between 1980-83 (see Table 1.17). With 1980=100 export unit values fell to an index of 94 in 1981 and 90 in 1982 for non-oil developing countries. Import unit values rose to 103 in 1981 and returned to 100 by 1982.³² Cline has applied these changes to the trade bases (goods and services) of the previous year and estimated a loss of \$ 25 billion in export value and an import cost increase of \$ 9.6 billion in 1981, and a loss in export value in 1982 of \$ 44 billion but no increase in import costs compared with 1980 prices. Thus, the total loss to non-oil developing countries from deteriorating terms of trade in 1981 and 1982 was an estimated \$ 79 billion.³³

The export prices of developing countries dropped much faster than their import prices during the recession since their exports mostly consist of commodities while their imports are primarily manufactured products. Consequently,

32. *IMF, International Financial Statistics, May 1983, pp.56-57.*

33. *William R. Cline, n.11, pp.12-13.*

for developing countries the terms of trade worsened by 0.9 per cent in 1982 and 3.5 per cent in 1983. For Africa the same worsened by -5.3 and -3.0 per cent in 1982, 1983 respectively. For Asia, the terms of trade worsened by 2.7 per cent in 1981 and remained stationary in 1982. For the Western Hemisphere the same worsened by 5.4 per cent in 1982 and 2.7 per cent in 1983.³⁴

The worsening terms of trade combined with the recession in the developed countries in turn affected the trade balance of most developing countries. Despite efforts to reduce imports, deficits of most developing countries remained at fairly high levels during the early 1980s (see Table 1.18).

Appreciation of the US Dollar

A final external development of significance to developing countries was the strong appreciation of the US dollar over the period 1981-84 (see Table 1.19). This development was related to the sharp rise in interest rates, but had an analytically distinct impact on the capital importing developing countries by depressing the US dollar price of internationally traded goods without a corresponding effect on the US dollar magnitude of external debt, about 80 per cent of which is estimated to have been denominated in US dollars (see Table 1.20). For these countries, about 2/5th of the rise in debt ratios between 1979 and 1983 is estimated to have been brought about by the real appreciation of the US dollar.³⁵

34. IMF, World Economic Outlook Revised Projections by the Staff of the IMF (Washington, D.C. Oct., 1987) p.69.

35. International Monetary Fund, World Economic Outlook : A Survey by the Staff of the IMF. (Washington D.C. , April 1986) p.91.

Conclusion

The ten year period from 1973 to 1983 proved to be a period of considerable stress for the non-oil developing countries. Throughout the 1970s, a combination of events caused the international economic environment to become less conducive to their stability and growth and to aggravate their problems of economic management in general and balance of payments adjustment in particular. External developments, including substantial fluctuations in the world market price of primary commodities, sharp increases in the price of energy products, the slowdown of economic activity in the industrial countries, and towards the end of the period, sharp increases in real interest in the international capital markets, were all major contributors to a serious deterioration in the current account positions of developing countries.

Although worldwide conditions affected all countries, their policy history in the 1970's significantly affected their positions. It is ironic and instructive that Mexico, an oil exporter, was the first large and highly publicized country with a "debt crisis". In Mexico's case, highly expansionary macro-economic policy had been financed through capital inflows that were based on the expectation of rapidly rising oil exports.

In contrast, Brazil had undertaken a series of measures in 1981 to increase incentives for the production of tradeables, reduce excess demand in the economy, and hence improve the current account balance. In Brazil's case, the worldwide recession made these policy changes inadequate and it experienced debt servicing difficulties in 1983.

There were many combinations. Argentina, for example, entered the 1980s with a strong external position, a small external debt, but with macro-economic imbalances and a highly distorted trade regime. Highly expansionary macro-economic policies in the early 1980's exacerbated these difficulties and Argentina would probably have confronted a debt-servicing crisis even if external conditions had remained normal. For Chile, a policy mistake was compounded by sharply deteriorating terms of trade for her major exports.

Some other countries maintained their debt-servicing obligations throughout the worldwide recession. Some, such as the Republic of Korea, were following reasonable policies when the oil price rose sharply and undertook sharp policy adjustments which quickly restored external balance.

Other countries had yet different patterns : fiscal and monetary policies had been conservative in much of South Asia so that initial debt levels were low, while restrictive trade policies had enabled them to insulate themselves from the world economy. In most of Sub-Saharan Africa, pervasive controls and regulations on private economic activity, overvalued exchange rates and restrictive trade regimes had already extracted a high cost in terms of negative growth rates of per capita incomes in the 1970's; when the terms of trade deteriorated in the early 1980's, outputs and incomes fell and maintenance of debt servicing was infeasible.

Thus, any explanation of the debt crisis has to be country specific. The next chapter therefore analyses the contribution of domestic macro-economic policies to Mexico's debt crisis.

Table - 1.1 : EXTERNAL DEBT OF NON-OIL DEVELOPING COUNTRIES 1973-1984 (\$ Billions)⁰

NON OIL DEVELOPING COUNTRIES	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
NOMINAL DEBT	130.1	160.8	190.8	228.0	280.3	334.3	395.3	475.2	559.6	633.3	668.6	795.6
Long Term	111.8	138.1	163.5	194.9	237.2	282.7	336.2	290.8	455.8	508.2	566.4	659.6
Short Term	18.4	22.7	27.3	33.2	43.2	51.6	59.1	84.5	103.8	125.1	102.2	136.1
REAL DEBT DEFLATED BY EXPORT UNIT VALUES - (1973 = 100)	130.1	116.4	140.9	157.7	169.1	192.2	191.5	198.8	239.7	289.4	312.7	361.6
DEFLATED BY IMPORT UNIT VALUES, (1973 = 100)	130.1	109.5	119.3	131.9	151.0	164.0	164.6	163.6	187.0	218.0	238.0	279.1
NOMINAL DEBT BY REGION												
Africa ^b	14.2	17.7	21.9	26.9	30.8	36.9	45.3	50.9	55.5	62.5	66.3	--
Asia	30.0	34.6	39.8	46.4	68.7	78.7	92.8	114.6	131.2	152.6	165.0	--
Western Hemisphere	44.5	58.2	68.6	82.0	109.1	132.4	157.8	192.6	246.0	283.1	294.4	--

a. Does not include debt owed to IMF

b. Excluding South Africa

SOURCE: IMF WORLD ECONOMIC OUTLOOK 1983, 1984, 1987; and IMF INTERNATIONAL FINANCIAL STATISTICS, VARIOUS ISSUES

Table - 1.2 - NON-OIL DEVELOPING COUNTRIES :LONG-TERM AND SHORT-TERM DEBT RELATIVE TO EXPORTS AND TO GDP, 1973-84¹ (in per cent)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
RATIO OF EXTERNAL DEBT TO EXPORT OF GOODS AND SERVICES ²												
All Non-Oil Developing Countries	115.4	104.6	122.4	125.5	126.4	130.4	119.2	112.9	124.9	143.3	159.6	154.2
BY REGION												
Africa	71.5	65.4	80.9	94.2	103.1	111.4	100.8	97.4	119.9	147.4	164.4	167.7
Asia	92.9	81.0	91.6	84.4	83.3	77.7	70.2	68.2	72.5	80.9	89.2	84.2
Western Hemisphere	176.2	163.4	195.8	204.1	194.1	211.5	192.4	178.4	207.4	245.6	287.5	273.3
RATIO OF EXTERNAL DEBT TO GDP ²												
All Non-Oil Developing Countries	22.4	21.8	23.8	25.7	27.4	28.5	27.5	27.6	31.0	34.7	35.7	36.8
BY REGION												
Africa	19.4	19.6	21.6	25.8	28.4	29.4	28.9	28.8	30.6	35.2	37.9	39.9
Asia	19.7	18.9	20.4	22.4	23.4	22.3	22.2	23.2	25.2	26.7	22.0	22.8
Western Hemisphere	23.0	22.8	25.5	26.4	28.4	30.3	28.8	27.0	31.9	38.2	48.2	47.3

a. Excludes data for the People's Republic of China.

b. Ratio of year-end debt to exports or GDP for year indicated

SOURCE: IMF, WORLD ECONOMIC OUTLOOK, 1983, 1986.

Table - 1.3 : NON-OIL DEVELOPING COUNTRIES : DEBT SERVICE PAYMENTS ON SHORT-TERM AND LONG-TERM DEBT, 1973-84¹
 [Values in Billions of US Dollars; Ratios in per cent]

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
ALL NON-OIL DEVELOPING COUNTRIES												
Value Of Debt Service Payments	17.9	22.1	25.1	27.8	34.7	50.3	65.0	76.2	94.7	107.1	93.2	--
Interest Payments	6.9	9.3	10.5	10.9	13.6	19.4	28.0	40.4	55.1	59.2	55.1	--
Amortization ²	11.1	12.8	14.6	16.8	21.1	30.9	36.9	35.8	39.7	47.9	38.1	--
Debt Service Deflated by Export Unit Values, 1973 = 100	17.9	16.0	18.5	19.2	20.9	28.9	31.5	31.9	40.5	49.0	43.6	--
Import Unit Values, 1973=100	17.9	15.1	15.7	16.1	18.7	24.7	27.0	26.3	31.8	36.9	33.2	--
Debt Service Ratio ³	15.9	14.4	16.1	15.3	15.4	19.0	19.0	17.6	20.4	24.1	21.1	22.0
Interest Payments Ratio	6.1	6.1	6.7	6.0	6.0	7.3	8.2	9.3	11.9	14.0	15.0	13.1
Amortization ratio	9.8	8.3	9.4	9.3	9.4	11.7	10.8	8.3	8.6	10.1	10.1	8.9
BY REGION												
AFRICA												
Debt service ratio ³	8.8	6.7	8.0	8.5	9.8	12.0	11.7	11.9	15.2	19.6	22.8	24.8
Interest Payments Ratio	2.9	2.5	2.8	2.9	3.4	4.6	4.7	5.5	7.8	8.4	8.7	9.5
Amortization ratio ²	5.9	4.3	5.2	5.6	6.4	7.4	7.0	6.3	7.3	11.2	14.1	15.3
ASIA												
Debt service ratio ³	9.6	7.8	8.5	7.7	7.6	9.6	8.7	8.2	9.2	11.2	10.8	11.8
Interest Payments ratio	3.9	3.4	3.5	3.3	3.3	3.7	4.0	4.6	5.5	5.8	5.7	5.9
Amortization ratio ²	5.7	4.4	4.9	4.4	4.3	5.9	4.7	3.7	3.7	5.4	5.1	5.9
WESTERN HEMISPHERE												
Debt service ratio ³	29.3	27.9	32.2	31.4	31.2	41.7	40.9	35.6	41.7	49.6	43.0	42.4
Interest payments ratio	11.1	11.9	14.2	12.3	11.7	14.9	17.1	19.4	25.4	31.9	30.7	29.8
Amortization ratio ²	18.2	16.1	18.0	19.1	19.4	26.8	23.8	16.2	16.3	17.7	12.3	12.6

1. Excludes data for the People's Republic of China prior to 1977

2. On Long term debt only

3. Payments (interest, amortization, or both) as percentages of exports of goods and services.

SOURCE: IMF, WORLD ECONOMIC OUTLOOK, 1983, 1986.

Table - 1.4 : DEBT TREND FOR INDIVIDUAL DEVELOPING COUNTRIES, 1973-82

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
ARGENTINA										
Total Debt (Billion Dollars)	6.4	8.0	7.9	8.3	9.7	12.5	19.0	27.2	35.7	38.0
Debt Service Ratio ¹	19.9	21.3	31.9	26.2	19.1	41.6	21.3	32.2	37.5	102.9
Net debt ² as percentage of exports ³	140.8	145.2	211.5	145.7	96.8	96.1	97.3	182.5	275.3	353.5
Ratio of total debt to GDP (percentage)	16.9	14.5	19.8	15.4	18.9	19.2	18.0	17.7	22.5	24.0
BRAZIL										
Total debt (billion dollars)	13.8	18.9	23.3	28.6	35.2	48.4	57.4	66.1	75.7	88.2
Debt Service ratio ¹	36.7	36.0	40.8	45.3	48.7	59.3	65.6	60.8	66.9	87.1
Net debt ² as percentage of Exports ³	106.2	145.9	194.3	195.8	207.6	252.2	269.3	259.1	256.6	365.3
Ratio of Total Debt to GDP (percentage)	16.7	17.3	18.0	18.2	19.8	23.5	24.8	26.6	26.7	29.4
MEXICO										
Total debt (billion dollars)	8.6	12.8	16.9	21.8	27.1	33.6	40.8	53.8	67.0	82.0
Debt Service Ratio ¹	28.7	21.9	30.3	40.7	53.6	64.9	67.7	36.4	48.5	58.5
Net debt ² as percentage of Exports ³	154.6	182.0	243.8	286.5	309.7	278.2	241.7	205.7	242.4	272.7
Ratio of total debt to GDP (percentage)	15.6	17.8	19.2	24.6	33.1	32.8	30.3	28.9	28.0	32.7
INDONESIA										
Total debt (billion dollars)	5.7	7.1	8.9	11.0	12.8	14.5	14.9	17.0	18.0	21.0
Debt Service Ratio ¹	3.4	2.1	6.2	7.2	8-3	9.7	7.4	4.9	5.2	11.3
Net debt ² as percentage of Exports ³	146.9	75.2	118.0	108.9	94.6	104.7	69.8	52.2	54.9	86.2
Ratio of total debt to GDP (percentage)	34.8	27.5	29.1	29.6	28.0	28.2	29.0	23.4	21.1	23.3
KOREA										
Total debt (billion dollars)	4.6	6.0	7.3	8.9	11.2	14.8	20.5	26.4	31.2	35.8
Debt Service Ratio	11.5	11.8	12.5	9.8	10.2	12.0	13.9	17.3	18.8	21.1
Net debt ² as percentage of Exports ³	88.9	106.5	110.2	73.4	63.0	70.2	89.8	103.8	103.9	104.5
Ratio of Total debt to GDP (percentage)	34.5	32.4	35.3	32.3	31.7	31.1	33.8	45.3	48.4	50.1
VENEZUELA										
Total debt (billion dollars)	4.6	5.3	5.7	8.7	12.3	16.3	23.7	27.5	29.3	31.3
Debt service Ratio ¹	3.8	3.3	3.5	8.4	10.0	15.6	16.4	15.6	19.0	20.7
Net debt ² as percentage of Exports ³	51.2	- 5.9	-37.3	-32.9	- 8.7	35.6	41.5	33.2	29.3	104.2
Ratio of total debt to GDP (percentage)	27.2	20.1	20.6	27.5	33.9	41.0	48.3	45.8	43.3	43.9

1. Ratio of interest on long-term and short-term debt plus amortization on long term to Exports of Goods and Services

2. Debt minus external official assets, non-gold.

3. Exports include services

SOURCE: W.R. Cline "INTERNATIONAL DEBT SYSTEMIC RISK AND POLICY RESPONSE" INSTITUTE FOR INTERNATIONAL ECONOMICS (WASHINGTON D.C. 1984)

Table - 1.5 : EXPORT GROWTH¹ COMPARED WITH INTEREST RATE 1973-82 (per centage)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
LIBOR+1 PERCENT	10.2	12.0	8.0	6.6	7.0	9.7	13.0	15.4	17.5	14.1
EXPORT GROWTH, NOMINAL NON-OIL DEVELOPING COUNTRIES	n.a.	36.4	1.4	16.5	21.2	17.2	28.9	26.1	5.8	-3.8
BRAZIL	56.1	33.2	6.1	13.5	19.7	7.2	24.2	29.3	15.7	-13.4
MEXICO	26.8	31.6	-0.2	13.3	14.0	39.1	40.2	54.3	21.9	7.3
ARGENTINA	61.6	25.8	-23.9	30.8	43.6	16.3	26.6	13.0	5.1	-15.7
KOREA	85.6	29.4	9.7	60.8	38.2	31.3	13.8	15.6	21.7	2.3
VENEZUELA	54.4	126.8	-15.7	2.8	5.5	-0.8	50.2	36.4	10.1	-22.0
CHILE	49.0	60.1	-21.7	31.7	8.1	13.8	59.0	32.3	-2.6	-3.8

n.a. - Not available

1. Goods and services

SOURCE: W.R. Cline "INTERNATIONAL DEBT : SYSTEMIC RISK AND POLICY RESPONSE". Institute for International Economic, (Washington D.C. 1984).

Table - 1.6 : NON-OIL DEVELOPING COUNTRIES: DISTRIBUTION OF DEBT BY CLASS OF CREDITOR, END OF YEAR, 1973-82¹

[In percentage]

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
ALL NON-OIL DEVELOPING COUNTRIES											
Total Outstanding Debt	100	100	100	100	100	100	100	100	100	100	100
Short-term Debt	14.1	14.1	14.3	15.4	15.4	15.4	15.0	17.8	18.5	19.8	15.3
Long-term Debt	85.9	85.9	85.7	84.6	84.6	84.6	85.0	82.2	81.5	80.2	84.7
To official Creditors	39.2	37.4	36.8	34.8	34.8	34.8	33.7	33.7	30.4	29.9	31.7
To Private Creditors	46.7	48.5	48.9	49.8	49.8	49.8	51.3	51.3	51.0	50.4	53.0
TOTAL OUTSTANDING LONG TERM DEBT	100	100	100	100	100	100	100	100	100	100	100
% Owed to Official Creditors	45.7	45.3	43.0	42.2	41.1	41.1	39.6	39.6	37.3	37.3	37.4
% Owed to Private Creditors	54.3	56.5	57.0	57.6	58.9	58.9	60.4	60.4	62.6	62.8	62.6
AFRICA											
Total Outstanding Debt	100	100	100	100	100	100	100	100	100	100	100
Shortterm debt	2.7	2.7	2.6	2.6	11.3	8.9	7.8	8.4	11.1	12.6	11.0
Long Term Debt	97.3	97.3	97.4	97.4	88.7	91.1	92.2	91.6	88.9	87.4	89.0
To Official Creditors	47.8	48.2	47.0	48.1	37.3	39.8	43.4	45.2	46.5	46.8	48.7
To Private Creditors	49.6	49.2	50.5	49.4	51.4	51.2	48.4	48.1	42.4	40.6	40.3
TOTAL OUTSTANDING LONG TERM DEBT	100	100	100	100	100	100	100	100	100	100	100
% Owed to official creditors	49.1	49.5	48.5	49.4	42.0	43.7	47.0	49.3	52.3	53.5	54.7
% Owed to Private creditors	50.9	50.5	51.8	50.7	57.9	56.2	53.0	52.5	48.0	46.4	45.3

Table - 1.6 (contd)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
ASIA											
Total Outstanding Debt	100	100	100	100	100	100	100	100	100	100	100
Short-term debt	11.4	12.1	12.5	13.0	15.6	15.6	19.0	21.3	20.7	21.1	18.4
Long-term debt	88.6	87.9	87.5	87.0	84.4	84.4	81.0	78.7	79.3	78.9	81.6
To Official Creditors	66.2	64.8	62.4	60.5	53.4	53.9	50.0	45.9	44.6	42.4	43.3
To Private Creditors	22.5	23.2	25.2	26.5	30.9	30.5	31.0	32.8	35.2	36.8	38.3
Total Outstanding Long-term debt	100	100	100	100	100	100	100	100	100	100	100
% Owed to official creditors	74.7	73.7	71.3	69.5	63.3	63.9	61.7	58.3	56.2	53.7	53.1
% Owed to Private Creditors	25.3	26.3	28.8	30.4	36.6	36.1	38.3	41.7	44.4	46.6	46.9
WESTERN HEMISPHERE											
Total Outstanding Debt	100	100	100	100	100	100	100	100	100	100	100
Short-term	14.2	13.5	13.8	13.9	13.4	14.0	14.2	11.3	20.7	23.1	15.5
Long-term	85.8	86.5	86.2	86.1	86.6	86.6	85.8	80.7	79.3	76.9	84.5
To Official Creditors	21.2	19.9	19.7	18.5	19.5	18.4	17.1	15.8	14.1	13.6	15.7
To Private Creditors	64.6	66.6	66.6	67.5	67.2	67.7	68.7	64.9	65.1	63.3	68.7
Total Outstanding Long Term debt	100	100	100	100	100	100	100	100	100	100	100
% owed to official creditors	24.7	23.0	22.8	21.5	22.5	21.4	19.9	19.6	17.9	17.7	18.6
% owed to Private Creditors	75.2	77.0	77.2	78.4	77.6	78.7	80.0	80.4	82.1	82.3	81.3

1. Excludes data for the People's Republic of China prior to 1977.

SOURCE : IMF, WORLD ECONOMIC OUTLOOK, 1983 ; 1984.

Table - 1.7 : LENDING BY PRIVATE CREDITORS TO 102 DEVELOPING COUNTRIES, 1970-82 (\$ Billions)^a

	1970	1973	1976	1978	1979	1980	1981	1982
<i>Debt Outstanding to Foreign Private Creditors (end year)</i>	15.8	32.0	71.1	125.4	154.5	177.7	201.9	229.0
FINANCIAL INSTITUTIONS	5.0	16.4	48.5	89.6	118.2	140.0	164.4	190.3
<i>At variable interest ratio</i>	0.5	9.3	33.7	64.3	89.2	107.4	131.9	152.8
<i>At fixed interest rates</i>	4.5	7.1	14.8	25.3	29.0	32.6	32.5	37.5
BONDS	3.1	4.5	6.3	13.5	14.1	15.5	16.6	17.1
<i>Supplier's Credits</i>	6.6	9.9	14.3	21.0	21.0	21.5	20.4	21.0
<i>Other^b</i>	1.1	1.2	2.0	1.3	1.1	0.7	0.6	0.5
<i>Disbursements by Foreign Private Creditors</i>	4.1	11.6	23.9	45.6	52.9	45.8	51.9	48.0
FINANCIAL INSTITUTIONS	1.8	7.7	17.7	35.3	45.9	38.6	44.8	39.2
<i>At variable Interest rates</i>	0.4	5.7	11.6	27.7	38.1	30.7	37.3	32.0
<i>At fixed interest rates</i>	1.4	2.8	6.1	7.6	7.8	7.9	7.5	7.2
BONDS	0.1	1.0	1.5	3.9	1.9	2.2	2.3	3.0
<i>Suppliers' credit</i>	1.8	3.0	4.7	6.7	5.1	5.1	4.8	6.2
<i>Others</i>	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a. Data covers 102 countries under the Debtor Reporting System

b. Principally debt that stems from nationalization or compensation for expropriated foreign assets, this category also includes debt not otherwise allocated

SOURCE: WORLD BANK, WORLD DEBT TABLES, 1983-84.

Table - 1.8 : SHARE OF TOTAL DEBT AT FLOATING INTEREST RATES 1973-85 (Period averages : In per cent)

	1973-74	1975-78	1979-80	1981-82	1983-85
SUB-SAHARAN AFRICA ¹	9.4	15.4	17.8	20.6	19.1
ASIA	8.1	21.9	31.3	38.1	45.2
WESTERN HEMISPHERE	34.1	51.3	66.4	71.7	72.4
CAPITAL IMPORTING COUNTRIES	21.1	54.7	44.6	51.1	53.6
MEXICO ²	40.1	--	--	76.2	--

1. Excluding Nigeria and South Africa

2. For Mexico the share of total public debt

SOURCE: IMF: WEO 1986, WORLD DEBT TABLES 1988-89

Table - 1.9 : OPEC OIL REVENUES, 1972-1981 (in millions at dollars)

	1972	1973	1974	1975	1976	1977	1977	1978	1979 ^a	1980 ^b	1981 ^b
TOTAL OPEC OIL REVENUES	14374	22510	91900	94700	116100	128400	133000	126000	197000	285000	308000

a. Estimate

b. Projection

SOURCE: BENJAMEN J. COHEN IN COLLABORATION WITH FABIO BASAGNI BANKS AND THE BALANCE OF PAYMENTS: PRIVATE LENDING IN THE INTERATIONAL ADJUSTMENT PROCESS. A RESEARCH VOLUME FROM THE ATLANTIC INSTITUTE FOR INTERNATIONAL AFFAIRS ALLANHEAD, OSMUN MOTCLAIR - 1981(CROOM HELLO! LONDON), p.7

Table - 1.10 CURRENT ACCOUNT BALANCES, 1973-84 (\$ billion)^d

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Industrial Countries	20.3	-10.8	19.8	0.5	- 2.2	32.4	-23.1	-60.5	-18.7	-22.3	-19.5	-58.5
Developing Countries	- 4.6	31.3	-10.9	7.7	- 1.0	-36.6	6.4	30.4	-48.5	-87.1	-64.2	-33.8
Non-oil Developing Countries	-11.3	-37.0	-46.3	-32.6	-30.4	-42.3	-50.4	-73.6	-98.3	-77.5	-42.0	-26.0
Oil Exporting Countries ^b	6.7	68.3	35.4	40.3	29.4	5.7	56.8	104.0	49.9	- 9.6	-22.2	- 7.6
By Area												
Africa ^c	- 1.9	- 3.2	- 6.6	- 6.1	- 6.6	- 9.4	- 3.4	- 1.9	-22.4	-21.4	-12.3	- 8.0
Asia	- 2.6	- 9.9	- 8.9	- 2.7	- 1.5	- 8.3	- 9.7	-14.4	-19.0	-17.4	-14.9	- 4.2
Western Hemisphere	- 4.7	-13.5	-16.3	-11.8	- 8.5	-13.2	-21.1	-30.2	-42.7	-42.5	-10.9	- 2.6
Medico (in US \$ millions)	-1,415	-2,876	-4,054	-3,411	-1,849	-3,163	-5,459	-8,162	-13,899	-6,218	5,419	4,240
OIL TRADE BALANCES												
Industrial Countries ^b							-174.5	-247.3	-237.8	-194.5	-163.6	-160.8
Developing Countries							170.3	238.0	216.8	166.3	133.3	132.8
Non-Developing countries	-3.8	-13.9	-13.9	-17.1	-18.4	-18.6	-26.7	-41.1	-39.7	-24.9	-24.7	-18.4
By Area												
Africa							21.4	33.4	25.8	19.2	16.6	19.1
Asia							- 4.9	- 9.6	-10.7	-10.1	- 8.1	- 3.4
Western Hemisphere							11.0	-18.5	23.3	23.0	22.5	25.7
Countries with recent debt servicing Problems							17.5	28.6	27.2	23.1	20.9	27.0
Countries without debt servicing problems							1.5	-1.3	- 3.4	- 3.8	- 2.3	2.1
Fifteen Heavily Indebted Countries							21.9	36.8	34.5	29.5	27.6	33.3

a. On goods and services and private transfers

b. Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Quater, Saudi Arabia, United Arab Emerge, Venezuela

c. Excludes South Africa till 1978

d. Figures are shown on a balance of payments basis with rough adjustments to these countries oil trade balance data that are only available on a trade returns basis

SOURCE : IMF WORLD ECONOMIC OUTLOOK, 1983, 1984, 1987.

Table - 1.11 : Current Account Financing by Non-oil Developing Countries, 1973-83^a

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 ^c
CURRENT ACCOUNT DEFICIT ^b (\$ Billions)	11.3	37.0	46.3	32.6	30.5	42.3	62.0	87.7	109.1	82.2	56.4
Use of reserves	-10.4	- 2.7	1.6	-13.0	-11.5	-16.3	-11.8	- 6.8	- 5.4	3.8	- 6.1
Non-debt creating flows ^d	10.3	14.6	11.8	12.6	14.1	17.0	23.7	24.1	27.2	23.9	21.3
Errors and omissions ^e	- 3.8	- 2.9	- 5.6	- 5.9	- 6.5	- 6.9	- 3.0	-15.4	- 15.5	-18.8	-10.0
NET EXTERNAL BORROWING (\$ Billions)	15.2	28.0	38.5	38.9	34.4	48.6	53.0	85.9	102.9	73.2	51.2
From Private Sources	10.1	19.6	24.4	23.7	18.4	32.8	36.5	60.6	70.5	36.2	20.2
Long-term capital	6.8	11.3	15.4	17.5	10.9	22.8	31.5	38.4	50.9	22.3	43.1
From Banks ^f	6.5	10.3	14.2	15.3	6.8	22.0	23.3	27.7	28.8	15.7	40.2
Other	0.3	1.0	1.3	2.2	4.1	0.8	8.1	10.7	22.1	6.6	2.9
Short-term capital	3.3	8.3	9.0	6.2	7.5	10.0	5.0	22.2	19.6	14.0	-22.9
From Official Sources	5.1	8.4	14.1	15.1	16.0	15.8	16.5	25.3	32.4	37.0	31.0
Long-term capital	4.9	6.8	11.7	10.5	13.1	13.8	17.0	20.0	22.6	21.6	22.6
Use of IMF credit and of others ^g reserve related credits	0.2	1.6	2.4	4.6	1.3	1.5	- 0.9	3.9	7.2	8.3	10.2
Accumulation of arrears	-	-	-	-	1.6	0.5	0.4	1.4	2.6	7.1	- 1.8
NET EXTERNAL BORROWING (percentage share)	100	100	100	100	100	100	100	100	100	100	100
From Private Sources	66	70	63	61	53	67	69	71	69	49	39
Long-term capital	45	40	40	45	32	47	59	45	49	30	84
From banks	43	37	37	39	20	45	44	32	28	21	79
Other	2	3	3	6	12	2	15	12	21	9	6
Short-term capital	22	30	23	16	22	21	9	26	19	19	- 48
From Official Sources	34	30	37	39	47	33	31	29	31	51	61
Long-term Capital	32	24	30	27	38	28	32	23	22	30	44
Use of IMF credit and other reserve related credits	2	6	7	12	4	3	- 2	5	7	11	20
Accumulation of arrears	-	-	-	-	5	1	1	2	3	10	- 4

a. Excludes data for the People's Republic of China prior to 1977; b. Balance on goods, services and transfers (with sign reversed)

- . . Negative sign indicates accumulation of reserves; d. Chiefly foreign investment and grants and SDR allocations;

e. Presumed to reflect primarily unrecorded capital flows; f. Refers only to long-term lending by banks guaranteed by government of debtor country.

g. Includes use of IMF credit and short-term borrowing by monetary authorities from other monetary authorities

SOURCE: IMF, WEO, 1983, 1984.

TABLE - 1.12

IMPACT OF HIGHER OIL PRICES ON DEBT OF NON-OIL DEVELOPING COUNTRIES
 [billion dollars]

YEAR	OIL IMPORTS		ADDITIONAL COST (C = A - B)
	ACTUAL (A)	HYPOTHETICAL (B)	
1973	4.8	4.8	0.0
1974	16.1	5.3	10.8
1975	17.3	5.7	11.6
1976	21.3	6.8	14.5
1977	23.8	7.5	16.3
1978	26.0	8.6	17.4
1979	39.0	10.9	28.1
1980	63.2	11.9	51.3
1981	66.7	12.1	54.6
1982	66.7	11.9	54.8
TOTAL 1974-82	344.9	85.5	259.5

a. Net oil importers only

b. If oil prices had risen no more than US
 Wholesale price index from 1973

SOURCE: W.R. CLINE, "INTERNATIONAL DEBT : SYSTEMIC RISK AND POLICY RESPONSE",
 INSTITUTE FOR INTERNATIONAL ECONOMICS (WASHINGTON D.C., 1984).

Table - 1.13 - INTEREST COST OF DEVELOPING COUNTRIES DURING 1972-83, by TYPE OF LONG-TERM CREDIT DISBURSED AND INCOME GROUP [Percentage]

<i>Interest cost on disbursed debt (a)</i>	<i>73/73</i>	<i>74/76</i>	<i>77/78</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>	<i>1982</i>	<i>1983</i>
<i>1. Fixed-Interest debt</i>	<i>4.4</i>	<i>4.9</i>	<i>5.5</i>	<i>5.8</i>	<i>6.0</i>	<i>6.0</i>	<i>6.3</i>	<i>6.7</i>
<i>DAC ODA loans</i>	<i>2.5</i>	<i>2.4</i>	<i>2.3</i>	<i>2.2</i>	<i>2.3</i>	<i>2.2</i>	<i>2.1</i>	<i>2.2</i>
<i>DAC export credits</i>	<i>6.3</i>	<i>7.0</i>	<i>7.6</i>	<i>7.8</i>	<i>8.2</i>	<i>7.9</i>	<i>8.1</i>	<i>9.0</i>
<i>Bonds</i>	<i>5.2</i>	<i>4.9</i>	<i>6.1</i>	<i>7.0</i>	<i>7.5</i>	<i>7.6</i>	<i>8.1</i>	<i>8.1</i>
<i>Other private credits</i>	<i>8.4</i>	<i>8.5</i>	<i>8.5</i>	<i>9.2</i>	<i>11.5</i>	<i>13.4</i>	<i>13.1</i>	<i>12.6</i>
<i>Multilateral loans : concessional</i>	<i>3.5</i>	<i>3.2</i>	<i>2.8</i>	<i>2.2</i>	<i>1.9</i>	<i>1.9</i>	<i>1.9</i>	<i>1.9</i>
<i>non-concessional</i>	<i>8.9</i>	<i>9.0</i>	<i>9.8</i>	<i>10.0</i>	<i>9.6</i>	<i>8.6</i>	<i>8.9</i>	<i>9.5</i>
<i>Non-DAC total bilateral</i>	<i>2.2</i>	<i>2.3</i>	<i>3.4</i>	<i>3.2</i>	<i>3.6</i>	<i>3.6</i>	<i>4.5</i>	<i>4.5</i>
<i>2. Floating-interest debt</i>	<i>8.3</i>	<i>9.9</i>	<i>8.4</i>	<i>12.3</i>	<i>15.5</i>	<i>17.4</i>	<i>17.1</i>	<i>12.7</i>
<i>3. Total LDC debt of which</i>	<i>5.0</i>	<i>6.0</i>	<i>6.3</i>	<i>7.7</i>	<i>9.0</i>	<i>9.7</i>	<i>10.0</i>	<i>8.7</i>
<i>LICs</i>	<i>2.9</i>	<i>3.2</i>	<i>3.4</i>	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>	<i>4.0</i>	<i>3.7</i>
<i>LMICs</i>	<i>4.6</i>	<i>5.0</i>	<i>5.2</i>	<i>7.3</i>	<i>8.7</i>	<i>9.0</i>	<i>9.8</i>	<i>8.3</i>
<i>UMICs</i>	<i>6.4</i>	<i>7.6</i>	<i>7.8</i>	<i>9.3</i>	<i>11.0</i>	<i>12.1</i>	<i>12.2</i>	<i>10.6</i>
<i>PM : Total non-OPEC, Non-OECD debt</i>	<i>4.5</i>	<i>5.4</i>	<i>6.0</i>	<i>7.1</i>	<i>8.8</i>	<i>9.5</i>	<i>9.6</i>	<i>8.4</i>

a. Annual interest payments and charges (including spreads and fees on floating-interest debt) as a percentage of disbursed debt at the beginning of the year.

SOURCE: OECD, External Indebtedness of Developing Countries : Survey OECD (Paris, 1984), p.36.

Table - 1.14 - GDP AT CONSTANT PRICES : PER CENT CHANGE OVER THE PREVIOUS YEAR (1973 to 1984)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
<i>World</i>	5.8	1.8	0.7	4.8	4.2	4.1	3.7	2.2	1.7	1.2	2.4	4.1
<i>Industrial Countries</i>	5.7	0.7	-0.4	4.5	3.7	4.0	3.2	1.4	1.5	1.1	2.6	4.5
<i>Developing Countries</i>	6.5	5.8	4.6	5.4	6.0	4.2	5.1	4.7	2.2	1.7	0.3	2.8
<i>Africa</i>	2.3	7.4	1.0	5.3	3.8	-1.5	3.7	7.0	-0.4	1.3	2.5	-0.1
<i>Asia</i>	6.6	2.9	7.4	2.1	7.5	9.3	3.9	5.7	5.9	5.2	6.6	4.6
<i>Western Hemisphere</i>	8.2	7.0	3.6	5.5	4.5	4.2	7.5	5.7	-0.1	-1.5	-2.3	3.5
<i>Mexico</i>	8.4	6.1	5.6	4.2	3.4	8.3	9.2	8.3	7.9	-0.6	-5.3	3.7

SOURCE : IMF INTERNATIONAL FINANCIAL STATISTICS YEAR BOOK, 1987

Table - 1.15 ANNUAL AVERAGE GROWTH RATES OF EXPORTS IN PER CENT (1978-79 to 1983-84)

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
WORLD	26.4	21.7	-1.3	-7.1	-1.6	5.4
DEVELOPED MARKET ECONOMY COUNTRIES	22.9	17.5	-1.9	-6.3	-0.2	6.3
DEVELOPING COUNTRIES AND TERRITORIES	38.5	34.0	-1.3	-12.5	-7.7	5.2
ASIA	39.2	34.5	1.2	-13.6	-9.4	4.0
AFRICA	49.3	36.1	-20.5	-12.5	-8.9	8.4
AMERICA	30.9	28.9	7.1	- 9.8	-1.5	6.3
MEXICO	49.5	73.5	31.0	4.4	0.4	12.3

SOURCE: UNCTAD HANDBOOK OF INTERNATIONAL TRADE AND DEVELOPMENT STATISTICS, 1987.

Table - 1.16 - OIL STATISTICS

YEAR	CONSUMPTION [mbd]	PRICE [\$/bbl]
1974	37.3	11.25
1975	36.3	11.02
1976	38.9	11.89
1977	39.7	12.95
1978	40.8	12.98
1979	40.5	19.00
1980	37.5	31.51
1981	35.5	35.01
1982	33.4	33.39
1983	32.9	28.72

SOURCE : OECD ECONOMIC OUTLOOK, VARIOUS ISSUES

Table - 1.17 - COMMODITY PRICE INDICES

YEAR	COPPER	IRON	BEEF	SUGAR	COFFEE	COCOA	AVG ¹
1975	62.7	85.4	41.7	133.9	48.1	47.9	60.1
1976	67.9	82.8	44.3	52.9	94.2	78.6	68.1
1977	64.9	80.8	56.8	37.8	152.0	145.6	82.1
1978	64.6	72.6	56.4	35.3	102.8	130.8	78.3
1979	91.0	87.8	93.3	40.3	112.5	126.5	92.0
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981	82.9	90.4	82.5	77.6	79.8	79.8	84.8
1982	71.9	96.2	68.8	43.2	66.9	66.9	74.3
1983	76.8	88.0	71.5	43.1	81.4	81.4	80.1
1984	66.0	87.9	--	43.4	92.0	92.0	82.1

1. Average of most commodities except oil as computed by the IMF

SOURCE : IMF, International Financial Statistics

Table - 1.18 - DEVELOPING COUNTRIES - TRADE BALANCE, 1979-88
 [in billions of US dollars]

	1979	1980	1981	1982	1983	1984
DEVELOPING COUNTRIES	56.9	95.4	371.1	7.4	16.7	48.5
AFRICA	9.0	16.7	- 4.6	-5.5	2.0	6.3
ASIA	-10.5	-17.3	-21.6	-20.6	-18.1	-3.2
WESTERN HEMISPHERE	- 1.6	- 3.2	- 5.4	5.4	28.3	37.1
MEXICO	-3.10	- 4.0	- 4.4	6.0	13.8	12.6

SOURCE: IMF, WORLD ECONOMIC OUTLOOK, 1987 AND INTERNATIONAL FINANCIAL STATISTICS YEAR BOOK 1988.

Table - 1.19

YEAR	EFFECTIVE EXCHANGE RATE U.S.\$
1970	119.1
1971	116.1
1972	107.8
1973	98.8
1974	101.1
1975	100.0
1976	105.2
1977	104.7
1978	95.7
1979	93.7
1980	93.9
1981	105.7
1982	118.1
1983	124.9
1984	134.9

NOTE: Index computed by the IMF, index = 100 in 1975.

SOURCE : IMF, *International Financial Statistics*

Table - 1.20 - Shares of Key Currencies (by Currency of Denomination) in Public Long-term Debt, 1974-83

[per cent]

CURRENCY	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
U.S. dollars ^a	65.1	69.0	70.3	67.8	64.8	66.8	68.1	71.8	73.4	76.3
Deutsche mark	8.8	7.3	7.6	8.2	9.2	8.6	7.3	6.3	6.0	4.8
Japanese yen	3.8	3.8	4.1	5.4	7.2	5.9	6.9	6.2	6.0	6.0
French francs	4.3	4.3	4.1	4.4	4.8	4.9	4.6	3.8	3.6	2.9
Pounds sterling	5.6	4.3	3.3	3.1	2.7	2.5	2.3	1.9	1.6	1.5
Swiss francs	0.8	0.7	0.8	1.1	1.6	1.5	1.3	1.4	1.3	1.0
Canadian dollars	1.5	1.5	1.5	1.3	1.1	1.1	1.1	1.1	1.0	0.9
Others	10.1	8.9	8.4	8.6	8.7	8.8	8.4	7.6	7.2	6.5
TOTAL	100	100	100	100	100	100	100	100	100	100
Memo Item										
Total debt (US\$ billions)	104	126	155	194	247	292	339	378	427	495

a/ The share of U.S. dollars includes "multiple currency" lending, predominantly in dollars, at variable interest rates, and accounting for an 8 to 10 percent share of external debt during 1974-83. The share of U.S. dollars is therefore an "upper bound", but the trend is unaltered, with the dollar's share rising by 11 per centage points in a decade

SOURCE: DRS WORLD DEBT TABLES - 1984-85 WORLD BANK, WASHINGTON D.C., U.S.A.

Chapter - II

MEXICO FROM 1970 to 1985 : AN ANALYSIS OF THE ROLE OF DOMESTIC
MACROECONOMIC POLICIES IN BALANCE OF PAYMENTS PROBLEMS AND
ADJUSTMENT

In the fifteen years to 1981, Mexico's real GDP grew by an average of 6.7 per cent a year. This was a little slower than Brazil's 7.4 per cent and much slower than South Korea's 9.5 per cent. Moreover, since Mexico's population was growing faster than Brazil's and South Korea's, it also lagged behind in the growth of per capita GDP. In the fifteen years to 1981 its real GDP went up by a cumulative 66 per cent. In the seven years since then it has actually fallen by about 16 per cent.¹

The greatest influence on the Mexican economy in the past decade has been oil. In the mid 1970's when OPEC hiked the oil prices, Mexico discovered rich new reserves and Mexico is now the non-communist world's fourth largest oil producer. In 1988 it produced 2.6 million barrels a day of which half were exported. In the early 1980's, before oil prices fell, oil accounted for 19 per cent of Mexicoan GDP, almost half the government's revenue and nearly 80 per cent of exports. Revenues from oil exports caused the value of Mexico's total exports to rise almost six fold in the five years to 1981. The total exports of developing countries barely doubled over the same period and even South Korea's increased by only a factor of three.²

1. *The Economist*, "Mexico : From Boom to Bust". (London, February 11, 1989), p.77.

2. *Ibid*, p.77..

Despite its' oil wealth, Mexico is today the developing world's second biggest debtor (after Brazil). Table 2.1 gives a detailed account of the performance of the Mexican economy from 1963 to 1984. As explained in the introduction, Mexico's balance of payments problems are linked to the size of its external debt. To analyse the contribution of domestic macroeconomic policies to Mexico's external debt and payments problems the review of events has been subdivided into two periods, 1970 to 1977 and 1978 to 1982, the latter being the period of the oil boom. The events of 1982, the year which marks the outbreak of the debt crisis are recapitulated followed by a discussion of the policy instruments and the behaviour of the economy during the adjustment program from 1983 to 1985. Before concluding the chapter the highlights of the Mexican economy from 1985 to the present are outlined.

THE PERIOD 1970-77

a] *The Current Account*

The nominal deficit in the current account averaged \$ 750 million in the period 1966-70. After rising rapidly to \$ 4.4 billion in 1975 it fell to \$ 1.6 billion in 1977. The ratio of the current account deficit to GDP also rose to nearly 5 per cent in 1975 from 0.03 per cent in the late sixties before improving in 1977. (See Table 2.3).

The increasing current account deficits till 1976 were the result of an increase in the import content of real investment from 13.6 per cent to 17.2 per cent during 1972-74, a rise in the ratio of current imports to real output from 4 to 6 per cent during the same period and an increase in the interest

rate on external debt to 9 per cent during 1974-75 from the earlier level of 6 per cent.³ An expansionary economic policy during 1973-75 also contributed to the enlarged size of the current account deficit.

b] *The Foreign Debt*

Table 2.2 shows how the current account deficit referred to above was financed. The net flow received from direct foreign investment was quite modest and it is evident that the bulk of the balance of payments deficit was financed by external debt, especially public external debt. Moreover, the figures reveal that external indebtedness went far beyond what was demanded by the current account deficits alone. The first two columns of Table 2.3 compare the current account deficit from 1970 to 1980 and the net debt at the end of 1980 for Mexico. Mexico shows a net debt by the end of 1980 substantially higher than the accumulated current account deficits. The third and fourth columns carry out a similar comparison for 1981-84. The gap between the current account deficit and gross debt is impressive and suggests large private capital outflows. From 1973 the item "other capital flows" and "errors and omissions" started assuming pronounced negative values.⁴ As will be argued later, such outflows were very much related to the domestic economic policy followed during the period.

The largest contributor to the capital account was the foreign public debt. The evolution of the foreign public debt is shown in Table 2.4. The net

3. *Ernesto Zedillo Ponce de Leon, "Mexico's Recent Balance of Payments Experience and Prospects for Growth", World Development, Vol.14, No.8 (1986), pp.965.*

4. *This term also comprises other relevant phenomena like smuggling. However, for the major proportion it reflects unrecorded financial flows.*

flow of foreign public debt which averaged only one per cent of GDP during 1970-72, tripled in 1973 and averaged 5.4 per cent of GDP during 1974-76. The ratio of net flow of foreign public debt to exports of goods and services also increased dramatically from 15.1 per cent in 1971 to 71.4 per cent in 1976.

The increase in the foreign public debt also exceeded to rise in public expenditure and fiscal deficit during the same period. Thus, the ratio of the net flow to public expenditure which was around 6 per cent for 1970-71 doubled in 1973 and tripled in 1976 (see Table 2.4). The ratio of net flow to public sector's deficit averaged 60 per cent during the second half of the Echeverria administration (1974-76) compared to less than 40 per cent during the first half.

The spectacular growth of foreign public debt from 1973 onwards was accompanied by significant changes in debt management. There was a marked shift towards borrowing from private sources of credit at flexible exchange rates. However, negative real interest rates prevented the ratio of interest payments to exports from rising significantly till 1975-76.⁵

c] *Domestic Economic Policy (1970-77)*

Mexico has along been regarded as a country with exceptional economic potential because of its diversified agricultural base, rich mineral deposits and substantial reserves of petroleum and natural gas. By the time Luis Echeverria Alvarez took office as President in December 1970, Mexico seemed to be well on

5. *For evidence see Chapter - I*

its way to economic prosperity with the growth rates of real national income averaging 7.1 per cent from 1963 to 1965.

Populist considerations made President Echeverria lay greater emphasis on agricultural investment and social welfare, reversing the policy orientation of previous administrations which had stressed industrialisation. The rise in public expenditure had an immediate negative impact on the public sector deficit (see Table 2.5). In 1972, GDP growth surged to 8.5 per cent, inflation was slightly higher than 5 per cent and the current account deficit remained at around \$ 1 billion (see Tables 2.2 and 2.5).

The same policy was followed in 1973 : public expenditure which had averaged 21 per cent during 1966-70 reached 27 per cent whereas the overall public sector deficit relative to GDP soared to 6.9 per cent (see Table 2.5). However, this time inflation climbed to a double digit figure for the first time in two decades and the current account deficit jumped to \$ 1.5 billion. In 1974, the rate of inflation which was 12 per cent in 1973 doubled to 23.7 per cent whereas the GDP growth rate fell by more than 2 percentage points. The current account deficit also doubled to \$ 3 billion in 1974 (see Table 2.2).

In spite of the noticeable acceleration of inflation and the financial and current account disequilibria, economic policy was kept on the same track. Domestic inflation was explained to be a consequence of worldwide inflation. In addition, increased domestic expenditure was justified to compensate for a fall in external demand caused by the recession in industrial countries. While external factors were quoted to justify economic policy, it was the foreign

financing which made such a policy sustainable over several years. Mounting fiscal deficits, high rates of inflation, a fixed exchange rate, negative real rates of interest and antagonism between the public and the private sectors and expectation of a devaluation created conditions conducive to capital flight. In 1976, the item "other capital flows and errors and omissions assumed a value of \$ 4 billion, an increase of nearly three times from the 1975 figure. The net flow of external debt also reached a record high level of \$ 7 billion during Echeverria's term.. In spite of the worrisome situation only minor adjustments were made. 1976 was an election year and foreign financing, though more expensive was still available.

On 31st August, 1976, the eve of the last Presidential address, the twenty-two year era of fixed parity was terminated and the peso was devalued by 42 per cent. To meet the liquidity crisis, Echeverria received \$ 600 million in assistance from the U.S. Treasury in September and a \$ 970 million emergency loan from the IMF on October 1. The Fund credit was granted under liberal conditionality, the government pledging to reduce public deficits, cut inflation and reduce foreign borrowing. Instead of fulfilling these goals, money supply, inflation and real wages were allowed to accelerate, offsetting a good part of the favourable expenditure-switching effect of the peso's depreciation.

In December 1976, the new Jose Lopez Portillo administration ratified the October agreement with the IMF, formally committing itself to a comprehensive stabilisation program designed to reverse the capital flight and promote public investment. Monetary and fiscal policies were tightened.

As the above corrective measures were being undertaken, an important recovery propelling factor materialized. It was revealed that proven hydrocarbon reserves which were 6.4 billion barrels at the end of 1973 had increased to 16 billion barrels by 1977. This announcement signalled the beginning of the oil boom.⁶

THE PERIOD 1978-81

a] *The Current Account*

The improvement in the current account deficit achieved in 1977 was partially reversed in 1978 and continued to worsen (see Table 2.2). Oil exports increased from US\$ 0.6 billion in 1976 to \$ 14 billion in 1981, but inspite of this there was a progressive imbalance in external payments. The current account deficit increased from \$ 2.7 billion in 1978 to \$ 12.5 billion in 1981, due in substantial measure to increase in imports, failure of non-oil exports and rising interest payments on accumulated foreign debt. Income paid abroad represented 64 per cent of the overall current deficit over the period 1978-81 compared to 42 per cent over 1972-77.⁷

b] *The Foreign Debt*

The increasing payments imbalance mentioned earlier was financed mainly through public foreign debt which increased from \$ 23 billion in 1977

6. *Ernesto Zedillo, n.3, p.970.*

7. *Jaime Ros, "Mexico from the Oil Boom to the Debt Crisis : An Analysis of Policy Responses to External Shocks, 1978-85" in Rosemary Thorp and Lawrence Whitehead, eds, Latin American Debt and the Adjustment Crisis (Oxford, 1986), p.73.*

to \$ 52 billion in 1981. (see Tables 2.4 and 2.6). The net flow of foreign public debt averaged only \$ 3.3 billion during 1978-81 (see Table 2.7). The net flow of debt with respect to several macroeconomic aggregates after initial adjustment in 1977 was kept in modest proportions during two-thirds of the terms of Lopez Portillo administration. Thus with respect to GDP, public expenditure and public sector deficit, the net flow of debt averaged 2.5 per cent, 7.5 per cent and 33.8 per cent respectively during 1978-80 (see Table 2.7).

However, the private sector's foreign debt including that of firms and banks which had amounted to \$5.2 billion in 1977 rose to \$ 15 billion by 1981. Still the total external debt when measured against the GDP fell from 33.1 per cent in 1977 to 28.9 per cent in 1980 (see Table 1.4, Chapter I).

The debt structure became more vulnerable towards the end of the period. By 1981, short term loans accounted for 30 per cent of external indebtedness.⁸ The ratio of interest payments on external debt to exports of goods and services rose from 22.5 per cent in 1978 to 27.2 per cent in 1981 (see Table 2.7). The share of dollar denominated debt in the overall debt of large private firms rose from 30 per cent in 1978 to 63 per cent in 1981.⁹

8. *World Bank, World Debt Tables "External Debt of Developing Countries". (Washington, D.C. 1988-89).*

9. *Jaime Ros, n.7, p.73.*

As shown in Tables 2.2 and 2.3 the expansion of external debt was much larger than required by the current account deficit due to the existence of capital flight. Although the existence of capital flight can be detected as early as 1979, it became a major cause of concern only in 1981.

c] *The Domestic Economic Policy*

Expectations about Mexico's economic prospects were very encouraging by late 1977 in contrast to the situation an year earlier. The discovery and massive exploitation of Mexico's oil reserves relaxed the balance of payments constraint on growth leading to a period of economic expansion from 1978 to 1981 at rates well above the historical norm. Led by oil production (19.4 per cent annual growth) and oil exports (52.7 per cent annual growth), gross domestic product expanded at 8 to 9 per cent per year and real national income (benefitting from a favourable shift in the terms of trade due to the oil price rise of 1979-80) grew even faster (9-10 per cent, see Table 2.1). This recovery, however, paradoxically preceeded the worst economic crisis in half a century of Mexican economic history.

Inspite of the ambitious industrial and development plans initiated by the Lopez Portillo government the oil boom was unable to create a development process in which agriculture and industry could play a leading role. President Portillo lost no opportunity to stress the dangers of "economic indigestion" that could be caused by flooding the country with petrodollars.¹⁰ Yet as time passed this seemed to be precisely the trap that his government

10. Benjamin, J. Cohen in Collaboration with Fabio Basagni "Banks and Balance of Payments : Private Lending in the International Adjustment Process". (Montclair, 1981), p.204.

was allowing itself to fall into. As shown in Table 2.8, investment was strongly biased in favour of the oil industry, which absorbed nearly one-half of all public investment in 1981 compared to one-third during 1970-77. Private investment shifted radically towards services and commerce and against manufacturing : the latter's share declined from one half in 1970-77 to one third in 1979-80. It is not surprising that for the first time in a boom period the growth of manufacturing output slowed down below the overall rate of economic growth, declining from 10 per cent in 1979 to 7 per cent in 1980-81.

The slowdown in the growth of the non-oil sectors of the economy was related to a striking deterioration in the non-oil foreign trade : From mid 1979 non-oil exports started falling, while imports of goods rose at an unprecedented rate of more than 30 per cent per year between 1978-81, attaining absolute increases in current dollars larger than the increase in oil export revenues (see Table 2.1). The explosive growth in imports and a deceleration in the growth of the manufacturing sector were both a result of three interrelated phenomena : the import liberalisation policies initiated under the 1977-79 stabilisation program, the progressive revaluation of the real exchange rate from 1978 to 1981 (see Table 2.1) and insufficient growth of non-oil industrial capacity.

Another policy similar to the earlier period was the unchecked expansion in aggregate demand led by the growth in public expenditure. Public expenditure as a percentage of GDP rose from 32.2 per cent in 1978 to 42.4 per cent in 1981, (see Table 2.9). Public expenditure of PEMEX (Petroleos Mexicanos - the government oil company) almost doubled from 4.7 to 7.5 per cent

of GDP during 1978-81. However, even the non-PEMEX public expenditure increased from 27.5 per cent to 35 per cent during the same period. The total financial deficit also more than doubled during 1978-81 from 6.7 to 14.7 per cent of GDP.

Most new investment by PEMEX was financed by foreign loans. In 1980, 82 banks extended a \$ 2.5 billion syndicated short term credit to PEMEX followed the next year by a \$ 1.5 billion loan. In 1977, PEMEX owed a total of \$ 3 billion to its international creditors. By mid - 1980 this figure had risen to \$ 20 billion.¹¹ The impact of the fiscal deficit on domestic markets was reinforced by an expansion of private demand. The boom in domestic demand and investment triggered a rapid growth of private indebtedness : the debt to capital ratio of large private firms rose from 0.9 per cent in 1978 to 1.2 per cent in 1981.¹²

It was against this background of increased financial fragility and dependence on oil which reached 72 per cent of total exports of goods in 1981 that international events played their destabilising role. After 1979, the Mexican economy experienced two successive external shocks (see Table 2.10). The first of these was the doubling of the oil price in 1979-80 and the second, the rise in foreign interest rates. The first had on balance, a favourable short term effect. Not only was the oil export income twice of that originally projected, but for the same reason the rise in international interest rates was accompanied by an almost unlimited availability of foreign

11. Chris, C. Carvounis, "The Debt Dilemona of Developing Nations : Issues and Cases". (London, 1984). pp.107-108.

12. Jaime Ros., n.4, p.73.

loans. The oil boom turned Mexico into a preferred customer of the international banks, and foreign loans were conceded in amounts and on conditions more favourable than for the rest of the developing world. Thus, from 1978 to 1981, while international bank loans to developing countries increased by 76 per cent, in the case of Mexico they rose by 146 per cent.¹³ But in the longer run, foreign borrowing could not be sustained because of unfavourable trends in the balance of payments.

1981 : FALLING OIL PRICES, FISCAL EXPANSION AND PRIVATE CAPITAL FLIGHT

An optimistic outlook continued to prevail during the first half of 1981, even though, the U.S. recession had started weakening the international oil market and foreign interest rates reached a peak of 19 per cent for 1981 as a whole. The 1981 budget assumed that Mexico could export a volume of oil 75 per cent higher at a price higher than recorded in 1980. In June 1981, PEMEX tried to prop up its price of petroleum by \$ 8.2 per barrel resulting in \$ 7 billion revenue losses from cancelled contracts.¹⁴

Fiscal expansion was reinforced in 1981 (see Table 2.9), stimulated by ready access to foreign finance and by the particular phase in Mexico's political cycle. 1981 being the fifth year of a six year presidential term, a rush set into carry through the government plans. The real exchange rate also appreciated 30 per cent above its historical level by the end of 1981 as a result

13. *Ibid.*, p.75

14. *Chris Carvounis*, n.11, p.108.

of the oil boom and fiscal expansion. The private sector, after borrowing heavily from abroad, started an unprecedented speculative attack on the peso in the first half of 1981 and capital flight of the magnitude of \$ 20 billion took place in a period of eighteen months. This absorbed as much as 54 per cent of the increase in Mexico's foreign debt (net of international reserves in 1981 and 1982, see Table 2.11). Foreign banks were in a sense relending to the Mexican government funds obtained from the acquisition of foreign deposits by Mexican residents.

THE EVENTS OF 1982

At the beginning of 1982, the international price of oil was still falling, capital flight was at its peak and nearly half of the country's foreign debt was due for repayment or refinancing over the following ten months.¹⁵ Although import controls had been reimposed in mid-1981 and a 4 per cent cut in the 1981 budget had been introduced, a more radical shift in economic policy became unavoidable.

In February 1982 the government decided on a fiscal contraction plus a devaluation package. The fiscal aspect included cuts in real public expenditure, an increase in public energy prices and reduction in food subsidies. Simultaneously the Bank of Mexico announced an end to its intervention in the foreign exchange market leading to an 80 per cent depreciation of the peso. This was followed by emergency increases of 30 per cent in the minimum wage and 20 per cent for higher wage levels.

15. *Jaime Ros, n.7, p.79*

The above measures resulted in the onset of recession and a rapid acceleration of inflation. The pessimistic exchange rate expectations encouraged capital flight. Devaluation increased the prices of imported capital goods and the real value of private firms foreign debt thus reducing the profitability of domestic productive investment. The financial break down of Grupo Alfa the country's largest industrial conglomerate is the most representative and best known example of the financial difficulties affecting private firms with substantial dollar denominated debt in 1982.¹⁶

Ironically, the spark that ignited the August 1982 financial panic was an austerity measure. After a sound election victory for the official government party (the PRI), the government raised the bread and tortilla prices by 100 per cent to reduce budget deficits caused by subsidies on these basic items. Although anti-inflationary in the long run, the short run inflation provoked the public, already subject to a 60 per cent annual inflation rate, to convert pesos into dollars. The fear of an imminent massive devaluation added to the panic. Capital flight became by far the most important source of payment imbalances (see Table 2.11) and, with foreign loans being increasingly rationed, of the fall of foreign reserves at the central bank.

In August 1982, when official reserves were almost completely exhausted the flow of international lending to Mexico was suddenly interrupted. The government declared dollar deposits redeemable only in pesos, instituted a dual exchange rate and closed the exchange markets.

16. James H. Street "Can Mexico Break the Vicious Circle of "stop-go" Policy? : An Institutional Overview" *Journal of Economic Issues*, vol. XX, no.2, (June 1987) p.603.

On August 20th, 1982, the Secretary of Finance, Jesus Silva Herzog met the representatives of a large number of creditor banks and requested a three month moratorium on payment of principal as well as the formation of an advisory group of creditors to negotiate the restructuring of the foreign public debt. This event marked the beginning of the Mexican debt crisis as well as that of the international debt crisis.

International assistance was available immediately. Aware of Mexico's vital importance to the soundness of the U.S. banking system and the broader economic interdependence between the U.S. and Mexican economies, Washington arranged for the prepayment of \$ 1 billion in purchases for the Strategic Petroleum Reserve and \$ 1 billion in agricultural credit. In addition major foreign banks agreed to a three month postponement in debt repayments. The Federal Reserve Bank's Chairman, Paul Volcker began to pressurise U.S. bankers to continue new lending to Mexico. Here, the negotiation of a stabilisation program was vital as it would provide a seal of approval to encourage foreign lending.

The last few months of the Portillo government were marked by the appearance of the IMF and the negotiation of an adjustment program. On November 10, 1982, the Mexican government announced the acceptance of an IMF stabilisation programme which would provide Mexico with \$ 3.84 billion in credit over the next three years.

THE ADJUSTMENT PROGRAM (1983-1985)

Miguel de la Madrid took office on 1st December, 1982, committed to a three year IMF stabilisation programme. Table 2.12 shows the main targets for the programme. It includes both the original IMF macroeconomic projections and the revisions made in the light of yearly results as well as the actual performance of targeted variables.

The short term goals focussed on an ambitious reduction of the inflation rate and a gradual adjustment in the current account. An additional and drastic fiscal adjustment - cutting by half the nominal public sector deficit as a percentage of GDP in 1983 was assumed to affect the GDP growth marginally. GDP growth rate was to be 0 per cent in 1983 and recover its historical rates by 1985. The proposed long term model of 'structural change' aimed at a radical alteration of the structure of relative prices and a progressive elimination of inefficient state intervention in production and foreign trade. Both these aspects implied a larger role for the market and a change towards an export led pattern of growth.

The Use of Policy Instruments

Fiscal policy was considered to be the main policy instrument to eliminate excess demand which was supposed to cause high inflation and external imbalance. The nominal deficit (PSBR - Public Sector Borrowing Requirement) was to be cut by half as a percentage of GDP from 17.9 in 1982 to 8.5 per cent in 1983.

The adjustment programme also included monetary ceilings on domestic credit expansion. During 1983-84, the interest rate policy involved setting deposit nominal rates so as to yield a high premium over foreign interest rates plus the announced rate of mini-devaluations in an effort to deter capital flight.

As far as the exchange rate policy is concerned, a two tier peso-dollar rate was established in September 1982, pegged at 50 pesos for foreign trade transactions and at 70 pesos for other transactions. In December 1982, the government in its attempt to 'catch up' with the black market rate established a 'free rate' at 150 pesos and a controlled rate at 95 pesos. Mini-devaluations were undertaken to decelerate the rate of inflation as well as to maintain an undervalued exchange rate in order to promote non-oil exports.

The use of trade policy comprised a moderate import liberalization through the relaxation of controls and the replacement of import licences by tariff. Finally, wage policy was to reconcile the goal of decelerating inflation with the desired modification of the structure of relative prices involving a fall in real wages.

THE PERFORMANCE OF THE MEXICAN ECONOMY IN A COMPARATIVE PERSPECTIVE

In 1984, Mexico was presented by the IMF as an example of successful orthodox adjustment to the debt crisis. According to this view, the necessary fiscal adjustment has been painful but rewarding in terms of an outstanding balance of payments performance, a decelerating inflation rate since mid-1983

and beginnings of an economic recovery in 1984. A more detailed analysis of the economic performance may however lead to different conclusions.

Economic Activity and the Balance of Payments

Table 2.13 and 2.14 show the half-yearly behaviour from the second half of 1981 onwards of a number of indicators of economic activity, trade and balance of payments.

The fall in public and private investment and the income distribution effects of the fiscal and exchange rate adjustments led to a fall in private consumption by 7.5 per cent over the previous year in 1983 (see Table 2.1). In the second half of 1983, manufacturing output and employment started falling again at annual rates above 6 and 4 per cent respectively. (See Table 2.13). The consumer durables and the capital goods industries showed the largest fall in output.

Sharp declines in public and private investment led to a fall in total imports of 41.7 per cent in 1983 in addition to the 37 per cent in 1982 (see Table 2.1). Imports of Capital goods made a substantial contribution through a fall of 62.2 per cent (42 per cent in 1982)¹⁷. Non-oil exports also began to respond to the real exchange rate adjustments and to the fall in domestic demand and grew at a rate of 16.7 per cent in 1983. (see Table 2.1). However, the contribution of non-oil exports to external adjustments is minor when compared to the fall in imports. The trade balance already showing a substantial surplus in the second half of 1982 climbed dramatically to \$ 14.2 billion in 1983, converting the current account deficit to a surplus of \$ 5.5 billion (see Table 2.14).

17. *Jaime Ros, n.7, p.98.*

The 1983 external adjustment was outstanding when compared to other Latin American countries, even after correcting for differences in output falls. However, this adjustment was based not only on a fall in domestic investment and capital goods imports, but on two long term weaknesses of its economic structure : dependence on oil revenues and a relatively underdeveloped capital goods industry. For example Brazil must generate a \$ 20 billion surplus in its non-oil trade balance in order to pay interest on debt and \$ 9 billion for oil imports. The Mexican economy can count on \$ 16 billion of oil export revenues and can accept a \$ 5 billion to \$ 6 billion deficit in the non-oil trade balance after deducting interest payments. Secondly, in Brazil a 16.3 per cent fall in industrial production during 1980-83 was accompanied by a 43 per cent fall in capital goods imports, while in Mexico from 1981 to 1983, only a 10 per cent fall in manufacturing output was needed to achieve a 78 per cent reduction in capital goods imports.¹⁸

After the sharp decline in 1983, manufacturing output recovered rapidly in the beginning of 1984 and started falling thereafter (see Table 2.13). For the whole of 1984, GDP grew by 3.5 per cent and manufacturing output grew at a rate of 8.4 per cent (see Table 2.1 and 2.13). Two general factors besides the US import boom account for this moderate recovery: the relaxation of the fiscal stance as measured by the real fiscal surplus due to a 6 per cent growth in general government employment, a reduction of the inflation tax and granting of generous incentives to private investment.

18. *Ibid.*, p.99.

The second factor was the medium term expansionary effects of the real exchange rate devaluation of 1982 and 1983 combined with the short term impact of real appreciation. Non-oil exports grew rapidly (18.7 per cent in constant dollars), stimulated by the U.S. economic recovery in 1984. Towards the end of the year, the trade surplus declined as non-oil exports started falling while imports continued to grow at very high rates (see Table 2.14). In 1985, the trade surplus was 44 per cent lower than in the first half.

HIGHLIGHTS OF THE MEXICAN ECONOMY : 1985-1989

In 1985, Mexico was shaken by an earthquake and in 1986 it was dealt a blow by the halving of the oil price with a loss in export revenue equivalent to 6 per cent of GDP. As the PSBR widened and the current account swung back into a deficit, the government was faced with more painful decisions.

The economic adjustment program of July 1986 included a further dose of austerity, but this time the rate of devaluation of the peso more than compensated for the inflation, giving a big boost to exporter's competitiveness. In the two years to mid-1987, the peso's real trade weighted value fell by 45 per cent. The volume of non-oil exports nearly doubled bringing the current account into surplus. But the depreciating peso pushed up inflation to 160 per cent by December 1987.

Despite several years of supposed fiscal austerity, the total PSBR was 17 per cent of GDP in 1987, no smaller than in 1982. Lower oil revenues were partly to blame, but so was inflation, which pushed up domestic interest rates.

In 1987, interest payments accounted for over half of public spending. Real spending excluding interest payments has fallen by half since 1982. The government's operational balance, which excludes the inflation component of interest payments on domestic debt (actually the early repayment of principal) has swung from a deficit of 5 per cent of GDP in 1982 to a surplus of 1 per cent in 1987.

The Economic Solidarity Pact of December 1987 was therefore aimed at defeating inflation. In addition to yet more austerity, the government agreed to a price and wage freeze with trade unions and business and also froze the exchange rate. The twelve month rate of inflation fell to 50 per cent by December 1988. But, once again, at the cost of zero growth. Mexico has rescheduled its debts several times during the past six years with some new money thrown in each time. In 1988, various innovative debt schemes, such as debt equity swaps and buy backs at a discount in the secondary markets, allowed Mexico to trim its debt by about \$ 6 billion to \$ 104 billion. But that still represents 340 per cent of its exports of goods and services -- virtually the same as in 1982. Interest payments have, however, fallen from 47 per cent of exports to 29 per cent as interest rates have declined.

The process of economic liberalisation initiated in the 1980's under President de la Madrid is being continued under President Carlos Salinas. Mexico joined GATT in 1986 and has since freed trade by more than required under the terms of entry. Only 6 per cent of imports need licences, compared with 95 per cent in 1982. The average tariff has been cut from 45 per cent to 10 per cent -- the lowest in Latin America -- and the maximum from 100 per cent to 20 per cent.

Mexico has also been successful to some extent in diversifying its oil exports. Oil has fallen to 35 per cent of the total exports from 80 per cent in 1982. This is not just because oil prices have declined, but because non-oil exports have doubled. Manufactured exports have risen from 16 per cent of the total to over half. However, the bulk of these come from the subsidiaries of foreign multinationals. The exports of the 1,200 or so maquiladora plants along the border with the US have become Mexico's second biggest foreign exchange earner. These factories allow components and raw materials to be imported duty free into Mexico where they are assembled into finished products and exported. If re-imported into USA, duty is assessed only on the value added in Mexico.

Mexico has in some respects been a model debtor : it has followed most of the prescriptions of the IMF and the bankers, and has made good progress in balancing its books, paying its debt service and opening up its economy. But with no reward. In 1988, real GDP per head was 16 per cent lower than before the outbreak of the debt crisis, while investment, the key to future growth has fallen from 23 per cent of GDP in the 1970s to only 16 per cent.¹⁹

CONCLUSION

While factors beyond the control of developing countries played an important role in the deterioration of the current account position of Mexico in the 1970s, domestic demand pressures played a predominant role in its external payments problems. In the case of Mexico the increase in

19. *All figures in this section are from The Economist, "Mexico, from boom to bust", (February 11, 1989), pp.77-78.*

aggregate demand was related to expansionary government policies that resulted in fiscal deficits. Fiscal deficits were a principal cause of the debt crisis - both directly, because they meant greater public borrowing, and indirectly, because they encouraged the private sector to send its capital overseas. In Mexico, capital outflow to some extent was the response of the private sector to what they perceived to be unsustainable fiscal deficits. This was due to the expectation that unsustainable public deficits would eventually lead to increased inflation and currency devaluation, lowering the return on domestic financial assets. Movement into foreign assets usually resulted in an equal amount of foreign borrowing by the public or private sectors to replace the lost capital. Although private borrowers may have had similar expectations of inflation, they may have anticipated that the public sector would partially compensate them for capital losses on foreign debt from devaluation.

Large outflows of domestic capital in the context of simultaneously increasing external indebtedness has made the issue of capital flight crucial to the understanding of Mexico's debt crisis. In most general terms, capital flight can be described as speculative short-term capital outflows based on economic or political apprehensions in the home country.²⁰ One of the major causes of capital flight in Mexico was the overvaluation of the exchange rate and the expectation of a devaluation which induced the residents to avoid potential capital loss by converting domestic wealth into foreign claims. Financial repression in the form of artificially low interest rates also played

20. *Sunil Gulati, "Capital Flight : Causes, Consequences and Cures", Journal of International Affairs, vol. 42, no.7, (Fall 1988) p.166.*

a role in encouraging capital outflows. In the late 1970s and 1980s, interest rates on foreign assets have been relatively more attractive than interest rates on domestic assets. It is also possible that increased external indebtedness may have led to increased capital flight as domestic residents anticipated future tax payments being required by governments facing large interest bills.

The period from 1970 to 1982 is often referred to by some Mexicans as the 'dozena tragica' (12 tragic years). The Presidential term of Luis Echeverria from 1970 to 1976 was marked by increasing public expenditure and inflation. The enlarged current account deficits were financed by rising external debt. Mounting fiscal deficits, high real rates of interest combined to induce capital flight and the paradox of capital outflows and private external borrowing side by side. Similar trends continued during President Portillo's term from 1976 to 1982. However, during this period, the oil boom was responsible for a speedy recovery of the economy in the initial phase. Investment was strongly biased towards the oil industry, non-oil foreign trade deteriorated and oil became the major export commodity. The oil boom increased Mexico's creditworthiness and induced the Mexican government to finance increased public sector deficits through the accumulation of external debt on the expectation of continuously increasing oil revenues. The payment difficulties experienced by Mexico finally culminated in a three year IMF adjustment program.

The IMF adjustment program initiated under President Miguel de la Madrid had as its short term goals, the reduction of inflation and a gradual adjustment of the current account. The long term goals were an alteration of the structure

of relative prices and progressive liberalisation of the economy. Cuts in fiscal deficits were to be the main policy instrument to eliminate excess demand. Exchange rate adjustments were initiated to decelerate inflation and at the same time maintain an undervalued exchange rate to promote non-oil exports. Direct import controls were introduced to improve the current account position. Wage policy was also used to alter the structure of relative prices.

The 1982 economic adjustment was outstanding as compared to other Latin American countries. The trade balance, already showing a substantial surplus in the second half of 1982, climbed to \$ 14.2 billion in 1983, converting the current account deficit to a surplus of \$ 5.5 billion. However, the decline in imports (mainly capital goods) of 42 per cent was the major factor in the external adjustment. This had a negative impact on economic growth and led to the phenomenon of 'overkill' — in 1983 GDP fell by 5.3 per cent instead of the expected 0 per cent. The adjustment in the current account balance was overdone by seven percentage points. The short term adjustment was based on two long term weaknesses of its economic structure : dependence on oil revenues which are very susceptible to changes in the international market and the absence of a developed capital goods industry.

In 1984, manufacturing output recovered sharply and was led by a boom in the automobile industry. GDP growth rate also showed a moderate recovery. Imports resumed growth at a rate of 21 per cent per annum. Three main factors were responsible for the manufacturing boom. They were the resumption of growth in the US, domestic recession causing high export

surpluses and real exchange rates favourable for exports.

Despite the stabilisation program involving austerity measures, in 1988, real GDP per head was 16 per cent lower than before the outbreak of the debt crisis, while investment has fallen from 23 per cent of GDP in the 1970s to only 16 per cent. Faster growth will be impossible without more investment. That in turn will be impossible while Mexico has to transfer resources equivalent to 5 per cent of its GDP abroad each year to pay interest-resources which otherwise could be used for investment. In the immediate future, sustained growth is unlikely to resume without an inflow of fresh external funds.

Table - 2.1 - Performance of the Mexican economy, 1963-84

	1963-75	1976-77	1978	1979	1980	1981	1982	1983	1984
Real national income (annual growth)	7.1	3.0	8.0	10.3	12.1	7.7	- 1.6	- 7.6	1.7
Ratio of investment to GDP (%)	18.9	19.9	20.1	22.1	23.4	24.9	21.1	16.0	16.3
Unemployment rate (%)	7.2 ^a	7.7 ^b	6.8	5.7	4.6	4.2	4.2	6.7	6.0
Real public sector surplus (% GDP)	na	-1.0	-2.5	-2.0	-0.6	-5.6	3.7	9.6	5.9
External current account (billion \$)	-1.2	-2.7 ^b	-2.7	-4.9	-6.8	-11.7	- 4.9	5.5	4.0
Foreign debt (billion \$) (Public & Private)	20.2 ^a	29.0 ^b	33.2	38.9	50.6	75.0	84.8	88.6	95.9
GDP by sectors (annual growth rates) (1970 prices)									
Agriculture	4.5	4.2	5.2	-1.3	7.1	6.1	- 0.6	2.9	2.4
Oil Industry	5.1	9.2	16.9	18.2	23.6	16.5	8.8	- 1.6	2.7
Non-oil industry	9.0	3.6	9.7	11.0	7.9	7.8	- 2.8	- 9.3	4.5
Commerce and services	7.7	3.7	7.6	9.9	8.1	7.9	0.2	- 4.6	3.2
Total GDP	7.6	3.8	8.1	9.3	8.3	8.0	- 0.5	- 5.3	3.5
Domestic expenditure, exports and imports (1970 prices, annual growth)									
Private consumption	6.6	3.3	6.9	10.1	7.5	7.4	1.1	- 7.5	2.8
Public consumption	9.0	2.6	9.7	9.8	9.5	10.1	2.4	- 1.3	6.9
Private investment in dwellings	na	5.1	-4.6	8.6	6.5	6.6	0.2	-10.2	5.8
Other private investment	8.9 ^c	-6.5	16.2	38.1	19.5	19.2	-28.5	-36.9	12.7
Public Investment	11.7	-7.1	33.0	15.9	16.7	15.8	-14.2	-32.5	0.7
Exports (goods and services)	4.7	15.6	17.4	6.6	6.1	6.2	13.7	11.5	10.8
Oil and Natural Gas	na	40.1	77.4	49.7	74.4	36.4	19.4	15.3	-3.3
Other Exports (goods)	na	7.4	28.2	-0.6	-4.9	-6.9	15.3	16.7	18.7
Imports (goods and services)	8.0	-4.8	18.7	33.4	31.9	20.3	-37.1	-41.7	21.0
Prices and Wages									
Consumer prices (annual growth)	6.8	21.1	17.5	18.2	26.3	28.0	58.9	101.9	65.5
Average real wages (annual growth)	na	4.1	1.0	5.5	-0.8	4.2	- 2.4	-26.5	-5.7
(Free) real exchange rate (1970=100)	127.4 ^a	92.9 ^b	101.1	107.2	118.3	128.0	87.6	61.5	78.6
(Controlled) real exchange rate (1970=100)							80.0	75.7	86.4

a. 1975; b. 1977; c. Total private investment

SOURCE: Jaime Ros, "Mexico from the Oil Boom to the Debt Crisis : An analysis of policy responses to External Shocks, 1978-85", in Rosemary Thorp and Lawrence Whitehead, eds., *Latin American Debt and the Adjustment Crisis* (MacMillan Press in association with St. Anthony's College, Oxford, 1986).

Table - 2.2 : Mexico : The balance of payments 1972-83 (millions of US dollars)

	Current account	Current account deficit percentage of GDP ¹	Net flow of total external debt	Direct foreign investment	Loans abroad	Special drawing rights	Other capital flows and errors and omissions	Change in reserves	Total external Debt stocks ²
1972	- 1,005.7	-2.0	415.9	146.2	- 4.5	39.2	673.6	264.7	7,028
1973	- 1,528.8	-2.6	2,488.0	199.5	- 5.1	--	-1,031.3	122.3	8,999
1974	- 3,226.6	-4.0	4,031.7	288.8	- 3.7	--	-1,053.3	36.9	11,946
1975	- 4,442.6	-4.6	5,865.9	168.2	16.7	--	-1,443.1	165.1	15,609
1976	- 3,683.3	-3.8	6,680.9	199.8	- 47.1	--	-4,154.3	-1,004.0	20,520
1977	- 1,596.4	-2.3	3,300.0	326.0	- 64.9	--	-1,307.6	657.1	31,189
1978	- 2,693.0	-3.1	2,988.8	364.5	- 15.8	--	- 210.4	418.9	35,732
1979	- 4,870.5	-4.1	6,634.7	742.6	17.6	70.0	-2,175.5	418.9	42,828
1980	- 7,223.3	-4.4	10,515.5	1,244.5	10.8	73.5	-3,470.1	1,150.9	57,450
1981	-12,544.3	-5.8	23,283.3	11,88.7	-359.7	69.6	-10,625.4	1,012.2	78,297
1982	- 4,878.5	-3.7	10,089.6	708.7	-117.3	--	-10,468.7	-4,666.2	86,111
1983	5,545.7	3.8	3,486.6	373.8	-250.5	--	- 5,895.2	3,260.6	93,057

1. Excludes exceptional financing ; SOURCE : IMF - International Financial Statistics

2. SOURCE: World Bank; World Debt Tables, 1988-89

SOURCE: ERNESTO ZEDILLO PONCE DE LEON, "MEXICOS" RECENT BALANCE OF PAYMENTS EXPERIENCE AND PROSPECTS FOR GROWTH WORLD DEVELOPMENT, (Great Britain, 1986) Vol.14, no.8, pp.963-991.

Table - 2.3 Accumulated Current Account Deficits and Debt
[billion current US dollars]

	1	2	3	4	5	6
	Accumulated Current account deficits 1970-1980	Net debt end of 1980	Accumulated current account deficits 1981-1984	Increase in gross debt, end of 1980 to end of 1984	(1) plus (3)	Gross debt of the end of 1984
Argentina	2.93	17.87	11.65	20.84	14.58	48.00
Mexico	33.66	45.17	10.53	46.55	44.19	95.90
Venezuela	-5.32	13.15	-7.18	7.49	-12.50	34.00
Sub total	31.27	76.19	15.00	74.88	46.27	177.90
Bolivia	1.14	1.67	1.04	1.67	2.19	3.20
Brazil	63.00	61.48	35.47	33.45	98.47	101.80
Colombia	0.37	-0.20	9.79	4.52	10.16	10.80
Costa Rica	2.90	2.99	1.36	0.87	4.26	4.05
Chile	6.63	6.96	10.22	7.36	16.85	18.44
Dominican Rep.	2.31	1.56	1.56	1.01	3.87	2.85
Ecuador	3.06	3.40	2.67	2.21	5.73	6.86
El Salvador	0.51	0.79	1.11	1.12	1.63	2.30
Guatemala	0.99	0.30	1.11	0.86	2.39	1.91
Haiti	0.54	0.26	0.86	0.31	1.40	0.60
Honduras	1.35	1.35	1.07	0.74	2.43	2.25
Nicaragua	1.31	1.51	2.13	2.32	3.44	3.90
Panama	2.20	2.09	1.77	1.34	3.97	3.55
Paraguay	0.96	0.08	1.29	0.70	2.25	1.56
Peru	4.49	6.79	5.70	3.91	10.19	13.50
Uruguay	1.86	-0.25	0.82	2.54	2.69	4.70
Sub total	93.62	90.78	78.27	64.93	171.92	182.27

SOURCE : Carlos Diaz Alejandro, "Some aspects of the Development Crisis in Latin America" in Rosemary Throp and Lawrence Whitehead, "Latin America Debt and the Adjustment Crisis" (Oxford, 1986).

Table - 2.4 - Mexico: The evolution of the foreign public debt 1970-77*

Year	Stock [!]	Flow [!]	Interest payment	Net flow GDP	Net flow Fixed investment	Net flow XGS ¹	Net flow Total public expenditure	Net flow Public sectors deficit	Interest payments XGS
1970	6,255.5	443.4	290.3	1.4	7.2	15.1	6.3	37.8	9.8
1971	6,666.7	411.2	306.2	1.2	6.7	13.0	5.8	48.8	9.6
1972	6,820.9	154.2	321.4	0.4	2.0	4.0	1.6	7.7	8.4
1973	8,448.8	1,627.9	442.1	3.2	16.8	33.6	12.0	47.3	10.9
1974	11,373.8	2,925.0	707.1	4.6	23.1	46.0	16.2	63.5	11.1
1975	15,705.1	4,331.3	1,031.5	5.5	25.8	68.0	16.7	55.2	16.2
1976	20,846.4	5,141.3	1,318.7	6.1	29.2	71.4	18.2	62.0	18.9
1977	23,833.7	2,987.3	1,542.3	5.1	18.5	36.4	1.3	51.8	18.8

* All comparisons between a dollar and a peso variable were made by means of an "equilibrium" exchange rate calculated as described in the Appendix

[!] Millions of US Dollars. All ratios are in percentage

SOURCE: ZEDELLO (1986), table no. 2.2.

Table 2.5 Mexico: Some key macroeconomic indicators 1966-77

Year	Real GDP Growth ¹	Inflation ²	Public sector deficit ³	Public expenditure ⁴	Public income ⁵	Money supply Growth ⁶	Dollar year end exchange Rates ⁷
1966-70	6.9	3.5	2.5	21.1	19.0	10.7	
1971	4.2	5.3	2.5	20.9	18.2	8.3	12.50
1972	8.5	5.0	4.9	23.6	18.5	21.2	12.50
1973	8.4	12.0	6.9	27.0	19.8	24.2	12.50
1974	6.1	23.7	7.2	28.3	20.9	22.0	12.50
1975	5.6	15.1	10.0	33.2	23.0	21.3	12.50
1976	4.2	15.8	9.9	33.6	23.5	30.9	19.95
1977	3.4	27.2	6.7	30.9	24.2	26.6	22.73

1. Notice that Mexico's National Accounts were revised in 1980, as a consequence, GDP growth figures from 1970, onwards have been adjusted upwards.
2. For 1966-77 the average percentage increase in the worker's cost of living was used,; for 1971 onwards the average annual percentage increase in the consumer price index was taken.
3. The overall financial deficit as a percentage of GDP.
4. As a percentage of GDP.
5. Average for the period.
6. Average annual increase.
7. Source: IMF National Currency per US dollar.

SOURCE: ZEDILLO (1986), table no. 2.2

Table 2.6. Mexico: The total external debt 1978-83

	Stock of foreign public debt *	Stock of foreign private debt*	Stock of foreign debt of commercial banks*	Stock of total foreign debt*	Ratio of total debt to exports of goods and services	Stock of foreign public debt!	Stock of total foreign debt!
1978	26,422.5	5,200.0	2,000.0	33,622.5	2.9	25.7	32.7
1979	29,757.2	7,900.0	2,600.0	40,257.2	2.5	23.2	31.4
1980	33,872.7	11,800.0	5,100.0	50,772.7	2.0	20.9	31.3
1981	52,156.0	14,900.0	7,000.0	74,056.0	2.4	27.6	39.1
1982	58,145.6	18,000.0	8,000.0	84,145.6	3.0	29.8	43.1
1983	64,279.0	17,500.0	8,000.0	89,779.0	3.1	37.2	51.9

* Millions of US dollars, Year-end value. These figures exclude direct supplier's credits.

! As percentage of GDP. This comparison was made by means of an "equilibrium" exchange rate calculated as described in the Appendix.

SOURCE: ZEDILLO (1986), table no. 2.2.

Table 2.7: Mexico: Flows of external debt 1978-83.

	Net flow of total external debt*	Net flow of foreign public debt*	Interest payments total external debt*	Interest payments foreign public debt*	Net flow of total external debt as percentage of		Net flow of foreign public debt as a percentage of:			Interest payments on external debt as a percentage of:	
					Total fixed invest- ment	XGS ¹	GDP	Public expenditure	Public sector deficit*	Merch exports	XGS ¹
1978	2,988.8	2,588.8	2,571.6	2,031.1	13.8	26.2	2.5	7.8	37.8	42.4	22.5
1979	6,634.7	3,334.7	3,709.3	2,888.4	22.1	41.5	2.6	7.8	35.3	42.1	23.2
1980	10,515.5	4,115.5	5,447.6	3,957.6	26.9	42.7	2.5	7.1	32.2	36.2	22.2
1981	23,283.3	18,283.3	8,278.8	5,476.0	48.0	76.5	9.7	22.8	66.0	43.2	27.2
1982	10,089.6	5,909.6	11,264.0	8,400.4	23.2	36.5	3.1	6.4	17.4	51.8	40.7
1983	3,486.8	4,486.8	9,861.4	7,346.2	22.4	12.2	2.5	6.1	29.2	46.1	34.5

* Millions of US dollars.

! All comparisons between a dollar and a peso variable were made by means of an "equilibrium" exchange rate calculated as described in the Appendix.

1. Data on XGS from World Bank. World Debt Tables 1988-89.

SOURCE: ZEDILLO (1986), table no. 2.2.

Table: 2.8 Composition of total public and private investment in 1970-77 and during the oil boom (1978-81)

	Total investment (excluding dwellings and central government)				
	1970-77	1978	1979	1980	1981
<i>Agriculture</i>	7.3	8.4	7.5	7.2	na
<i>Mining</i>	2.2	1.6	2.9	3.1	na
<i>Oil</i>	11.2	20.7	18.4	19.0	na
<i>Manufacturing</i>	38.0	20.7	24.7	25.6	na
<i>Electricity</i>	8.1	10.1	9.5	9.8	na
<i>Commerce and Services</i>	33.3	38.4	36.9	35.3	na
TOTAL	100.0	100.0	100.0	100.0	
<i>Public investment (excluding central government)</i>					
<i>Agriculture</i>	1.8	1.7	2.2	2.5	3.5
<i>Mining</i>	0.7	0.7	1.0	1.1	1.0
<i>Oil</i>	32.0	44.6	41.9	44.2	44.7
<i>Manufacturing</i>	14.2	9.8	14.3	11.6	15.2
<i>Electricity</i>	23.1	21.8	21.8	22.8	19.4
<i>Commerce and Service</i>	28.2	21.4	18.8	17.8	16.2
TOTAL	100.0	100.0	100.0	100.0	100.0
<i>Private non-residential investment</i>					
<i>Agriculture</i>	10.2	14.2	11.7	10.7	na
<i>Mining</i>	3.0	2.3	4.4	4.6	na
<i>Oil</i>	0.0	0.0	0.0	0.0	na
<i>Manufacturing</i>	50.8	30.3	32.8	36.1	na
<i>Electricity</i>	0.0	0.0	0.0	0.0	na
<i>Commerce and services</i>	36.0	53.0	51.1	48.6	na
TOTAL	100.0	100.0	100.0	100.0	

Source: JAIME ROS (1986), table no. 2.2.

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Table 2.9: Mexico Public Finance 1978-81

	Total public expenditure	Public expend. without PEMEX	PEMEX expenditure	Public expen. without interest payments ²	Total public income	Income oil sector	Income non-oil sector	Total financial deficit	Financial Deficit	
									External	Internal
1978	32.2	27.5	4.7	30.2	25.5	5.0	20.4	6.7	40	27
1979	33.6	28.3	5.3	31.4	26.2	6.1	20.1	7.4	45	29
1980	35.6	30.4	5.2	33.5	27.8	8.0	19.7	7.9	49	29
1981	42.4	35.0	7.5	40.0	27.7	8.0	19.7	14.7	62	85
1982	48.9	41.5	7.6	40.8	31.0	12.4	18.6	17.9	144	38
1983	41.7	35.6	6.1	29.3	33.9	16.2	17.7	8.7	-30	118

1. All variables as percentages of GDP. Some sums may not check because of rounding.

2. Paid by the public sector on its internal and foreign debts.

SOURCE: ZEDILLO (1986), table no. 2.2.

Table 2.10: Indicators of the international economy, 1977-84.

	1977	1978	1979	1980	1981	1982	1983	1984
US GDP Growth	5.5	4.9	2.4	-0.3	2.6	-2.0	3.8	6.8
OECD GDP Growth	3.9	4.0	3.3	1.3	1.6	-0.7	2.4	5.4
US inflation rate	6.5	7.7	11.3	13.5	10.4	6.1	3.2	4.2
Dollar price of oil (growth rate)	9.4	6.4	46.4	63.0	10.0	-3.4	-12.3	-1.3
US prime rate (nominal) (%)	6.8	9.1	12.7	15.3	18.9	14.9	10.8	12.0
US prime rate (real) (%)	0.4	1.4	1.4	1.8	8.5	8.7	7.6	8.0

SOURCE: IMF, *International Financial Statistics* (1984); IMF, *World Economic Outlook* (1984); *Economic Report of the President* (1985).

Table 2.11: Use of foreign debt, 1972-84^a (billion dollars).

	1972-77 ^b	1978	1979	1980	1981	1982	1983	1984
1. Increase in public and private external debt less change in reserves ^c	3.7	3.3	5.8	9.6	23.4	14.4	-1.1 (7.3)	-1.5 (10.7)
2. Trade balance	-1.5 (40.0)	-0.5 (15.2)	-1.8 (30.8)	-2.1 (21.7)	-5.3 (22.5)	5.4	14.4	13.8
3. Factor income from abroad	-1.1 (30.3)	-2.2 (66.6)	-3.1 (53.7)	-4.7 (48.8)	-7.3 (31.0)	-10.3 (71.6)	-8.9 (61.6)	-9.6 (69.7)
4. Gross acquisition of foreign assets by the private sector ^b	-1.1 (29.7)	-0.6 (18.2)	-0.9 (15.5)	-2.8 (29.5)	-10.9 (46.5)	-9.5 (66.1)	-4.5 (31.1)	-2.7 (19.6)

NOTES: (1) + (2) + (3) + (4) = 0.

- a. Negative items (outflow of foreign exchange) are expressed in parentheses as percentage of the sum of positive items (inflow of foreign exchange).
- b. Yearly average for the period.
- c. Includes direct foreign investment.
- d. A negative figure refers to a positive acquisition of foreign assets.

SOURCE: JAIME ROS (1986), table no. 2.1

TABLE 2.12 : MAIN TARGETS OF THE ADJUSTMENT PROGRAMME, 1983-5

	1982	1983	1984	1985
Inflation (Dec.-Dec. consumer prices) (%)				
Original IMF projection ^a		55.0	30.0	18.0
Revised targets (government) ^b			40.0	35.0
Actual performance	98.9	80.8	59.2	63.7
PSBR (% of GDP)				
Original IMF projections ^a		8.5	5.5	3.5
Revised target (government) ^b		8.5	5.5	5.1 ^c
			6.5	5.6 ^c
Actual performance	17.9	8.8	7.1	9.9
Current account balance				
Original IMF projections (%) of GDP		-2.2	-1.8	-1.2
Actual performance (%) of GDP	-2.7	5.7	3.4	0.4
Revised targets (government) (billion dollars) ^b			0.0	1.0
			0.5	2.0
Actual performance (billion dollars)	-4.9	5.5	4.2	0.5
Real GDP growth (%)				
Original IMF projections ^a		0.0	3.0	6.0
Revised targets (government) ^b			0.0	3.0
			1.0	4.0
Actual performance	-0.5	-5.3	3.5	2.7

Notes:

a Original macroeconomic projections by the IMF (late 1982).

b Annual targets, which are revised in the light of the results obtained, contained in the document: Presidencia de la Republica, 'Criterios Generales de Politica Economica'. This document is sent to Congress in November-December of each year and presents the main objectives of economic policy for the coming year.

c In the letter of intent to the IMF (March 1985) this target was modified to 4.7 per cent of GDP. However, none of the other targets was revised to ensure internal consistency.

SOURCE: JAIME ROS (1986)

Table - 2.13 : Industrial Output, investment and employment, 1981-5 (half yearly performance)

	1981		1982		1983		1984		1985
	II	I	II	I	II	I	II	I	
<i>Growth rates^a</i>									
Oil production	-10.5	32.8	25.2	- 7.8	10.6	- 0.9	3.1	-10.4	
Manufacturing production	6.5	- 1.5	-18.1	- 3.4	- 6.3	12.7	3.7	12.0	
Consumer non-durables	5.6	5.0	-11.4	0.3	- 3.6	7.8	-1.9	11.0	
Consumer durables	3.7	- 8.7	-29.8	-15.8	-21.4	13.0	13.5	18.5	
Intermediate goods	8.0	- 3.0	-17.1	- 2.0	- 4.6	14.7	5.2	10.5	
Capital goods	3.1	- 9.4	-40.6	-20.0	-18.8	24.3	12.6	25.8	
Goods fixed investment	2.5	-16.7	-32.8	-32.6	- 5.5	1.4	27.8	2.1	
Manufacturing employment	3.8	- 0.9	-10.7	-11.5	- 4.8	- 1.0	3.0	2.6	
<i>Percentage rates</i>									
Urban unemployment	4.1	4.0	4.5	6.6	6.9	5.7	6.4	na	
Adjusted urban unemployment	6.4	5.8	6.4	9.1	9.3	9.1	10.0	na	

a. Annualised growth rates with respect to previous six months (not seasonally adjusted); na means data are not available

SOURCE: JAIME ROS (1986), table no. 2.1

Table - 2.14 : Trade and the balance

	1981		1982		1983		1984		1985
	II	I	I	II	I	II	I	II	I
Exports (goods and services)	13.8	11.3	15.3	13.0	13.9	15.4	14.5	13.9	
Goods	9.1	9.5	12.5	10.3	11.1	12.3	11.6	10.7	
Services	4.7	1.8	2.8	2.7	2.8	3.1	2.9	3.2	
Imports (goods, and services)	17.0	13.5	8.3	5.8	6.8	7.2	9.0	9.3	
Goods	11.5	9.2	5.2	3.5	4.2	4.9	6.3	6.7	
Services	5.5	4.3	3.1	2.3	2.6	2.3	2.7	2.6	
Trade balance (goods and Services)	-3.2	-2.2	7.0	7.2	7.1	8.2	5.5	4.6	
Income from abroad	-4.2	-3.9	-5.7	-4.9	-3.9	-4.8	-4.9	-4.6	
Current account balance	-7.4	-6.1	1.3	2.3	3.2	3.4	0.6	0.0	
Long-term capital (Balance)	11.8	5.5	4.8	0.9	3.3	0.9	1.6	0.1	
Short-term capital (balance)	0.9	-0.2	-1.6	-0.6	-4.4	-2.8	-1.4	-1.2	
Errors and omissions	-4.0	-2.4	-6.0	-0.9	-0.5	0.1	-0.1	-0.5	
Bank of Mexico	1.3	-3.2	-1.5	1.7	1.5	1.6	0.7	-1.6	

SOURCE: JAIME ROS (1986), table no. 2.1

Chapter - III

THE ROLE OF COMMERCIAL BANKS AND THE INTERNATIONAL
MONETARY FUND IN THE WORLD DEBT PROBLEM

The preceding chapters have so far emphasized two factors : the contribution of external shocks which explained the timing of the crisis and the domestic macro-economic policies of Mexico during 1970-85 which explained why Mexico experienced more serious difficulties than others. However, imprudent borrowing is impossible without imprudent lending. The first section of this chapter concentrates on the supply side - why did the commercial banks exceed lending limits with respect to Mexico and other debtor countries? The second section deals with the role of the IMF - both in financing the current account deficits and in implementing the stabilisation programs intended to eliminate the disequilibria in the balance of payments. It also evaluates the role of the IMF in the debt crisis - before 1982 as a surveyor of the world economy and after 1982 as the main organiser of debt relief.

I. THE COMMERCIAL BANKS AND THE DEVELOPING COUNTRY DEBT CRISIS

In 1973-74, international bank credits rose sharply reflecting the enormously increased need for deficit financing in most oil consuming countries (T.3. On the supply side, the markets were characterised by the massive inflow of petrodollars from the oil exporting countries, who because of their limited absorption capacities, deposited their surpluses with the banks, who in turn lent a major portion of their deposits to developing countries. It was this

intermediate role of the banks that fuelled the banking boom of the 1970's and early 1980's. It has been estimated that from 1974 to 1976, some \$ 49 billion in petrodollars were transferred to the European and American banks and that out of the total \$ 240 billion OPEC surplus of 1979, about 80 per cent was invested outside OPEC nations.¹

One of the reasons for the recycling of the petrodollars to the developing nations was the opinion among the banking community that some of the resource rich developing countries had a tremendous future of high growth-rates compared to the low growth rates prevailing in the OECD countries. Thus, out of the total Euro-credits granted to developing countries between 1974 and 1977, 70 per cent went to Brazil, Mexico, Argentina, the Philippines, the Republic of Korea and Peru.²

The recycling of OPEC surpluses by the commercial banks was strongly encouraged by the governments of industrial countries. Given the rigidities of official institutions, the option of private recycling provided a quick and flexible response to the dilemma faced by policy makers. It also eased the short term adjustment burden of the developing countries and helped the international system to avoid a prolonged recession.

1. *Chris Carvounis, "The Debt Dilemma of Developing Nations : Issues and Cases", (London, 1984), p.45.*

2. *Richard Swedberg, "Oil Shocks, the Private Banks and the Origin of the debt crisis", International Social Science Journal, vol.113, 1987, p.330.*

BANK EXPOSURE

The risk to banks from foreign lending may be gauged by examining the size of their exposure to the class of foreign borrowers most likely to encounter debt servicing difficulties : developing and East European countries. Table 3.2 shows the ratio of exposure to capital for U.S. banks since 1977. For all U.S. banks this ratio rose from 131.6 to 155 per cent of capital during 1977-87. For the nine largest banks, total exposure stood at 235.2 per cent of capital for Eastern Europe and non-oil developing countries in 1982.

The table also documents the sharp rise in loans to Mexico by the nine largest banks whose exposure relative to capital increased from 33 to 44 per cent during 1977-82. The loans of U.S. banks in Brazil and Mexico represents 35 per cent of total U.S. bank loans to Eastern Europe, non-oil developing countries and five OPEC countries (Algeria, Ecuador, Indonesia, Nigeria and Venezuela).

Although exposure to these countries is high relative to bank capital, it is a more modest share of total bank loans. Thus, for the nine largest banks, loans to Eastern Europe, non-oil developing countries and OPEC countries account for 282.8 per cent of capital in 1982, but only 13.9 per cent of total bank assets (primarily loans).³

The exposure of individual large banks to individual countries provides a better reflection of vulnerability. Table 3.3 shows the exposure of 18 large

3. W.R. Cline, *"International Debt: Systemic Risk and Policy Response"*, Institute for International Economics (Washington D.C., 1984), p.33.

individual banks in 1982 to five Latin American countries which experienced debt servicing difficulties in 1982-83 as a percentage of primary capital. Exposure in Mexico equalled or exceeded 60 per cent of capital for Manufacturers Hanover, Chemical Bank and First Interstate. Exposure in the five Latin American countries alone exceeded 150 per cent of capital for Citicorp, Bank of America, Chase Manhattan, Manufacturers Hanover, Chemical and Crocker National. Table 3.4 shows the exposure of the largest 10 U.S. banks to four Latin American countries both as a percentage of assets and primary capital at the end of 1984.

Causes for Overlending by Commercial Banks

The previous section examined the exposure of U.S. commercial banks to the debtor countries. Why did the commercial banks permit these exposures to become so large? In the case of Mexico, the U.S. banks continued to lend in support of unsound economic policies long after the residents had lost confidence in their government's policies and engaged in capital flight. The explanation for this has to center around the process of 'bank decision making' which includes absence of bank regulation, implicit government guarantees, loan concentration and capital inadequacy. The analysis restricts itself to U.S. Commercial banks since they hold the largest amount of risky debt in Latin America, both in absolute terms and in relation to their capital. Latin America has about \$200 billion of bank debt outstanding of which about \$75 billion is owed to U.S. banks, \$ 30 billion to U.K. Banks and the remaining \$95 billion or so are divided among German, French, Canadian, Swiss and other banks.⁴

4. Jeffrey Sactis and Harry Huizinga, 'U.S. Commercial Banks and the Developing Country Debt Crisis', Brookings Papers on Economic Activity, (Washington D.C.), 2, (1987), pp.555-56.

Absence of Adequate Bank Regulation

The explosive growth of the Euromarket and lending to developing countries largely took place outside a regulatory framework. It was the absence of reserve requirements, interest rate ceilings and other regulations which made the Euro-currency lending highly profitable. Neither the banks, nor the governments realized that the U.S. banks were assuming the risk rather than OPEC in financing deficit countries. IN 1977 Anthony Sampson, Under Secretary of Treasury announced in the Congress, "In my view there is absolutely no prospect of debt rescheduling in regard to Mexico or Brazil".⁵

Inadequate Information and Analysis

Although information on debt service obligations is a critical component of the capacity to repay, banks lent money without adequate data on external debt. If individual banks had been aware of the amounts that their competitors were lending to Mexico at the same time they would not have possibly lent so much to Mexico, especially the \$ 7 billion just six months before the debt crisis erupted.

The analysis of the creditworthiness of a sovereign borrower had serious shortcomings. Firstly the analysis did not adequately evaluate the covariance among country loans with respect to rise in interest rates. It was also felt that shorter maturities would permit adjustments in exposure as balance of payments

5. Karin Lissakers, 'Bank Regulation and International Debt', in Richard E. Feinberg and Valerina Kallab, eds., "Uncertain Future : Commercial Banks and the Third World (Washington D.C., 1984), p.48.

or political conditions change.⁶ However, with nearly all lenders on the run it is unlikely that the country will care to liquidate assets so that some lenders can be rapid. Secondly, the extent to which information was utilized in lending decisions was limited by stiff competition and the 'salesmanship' quality of the substantially autonomous loan officers. Few banks reviewed the accuracy of their actual performance. Fear of aiding a competitor prevented banks from sharing information. Even the information provided by international organizations was incomplete and out of date till the 1980's.

Loan Concentration :

A small number of countries did the bulk of borrowing from banks during 1974-82. Brazil, Mexico and Argentina accounted for half of the debt owed by developing countries to the commercial banks. Moreover, a handful of large institutions did most of the sovereign lending. The nine largest banks accounted for 66 per cent of the total \$ 100 billion in U.S. bank claims on non-oil developing countries while the twentyfour large banks held 80 per cent of such claims in 1982.⁷ In the same year, there was a high degree of country risk concentration in the portfolios of the big banks (see Table 3.3 and 3.4).

6. Jack M. Guttentag and Richard Herring, "Commercial Bank Lending to Developing Countries : From Over-lending to Underlending to Structural Reform", in Gordon W. Smith and John T. Cuddington, eds., *International Debt and the Developing Countries* (Washington D.C., 1985), p.135.

7. Karin Lissakers, n.5, p.52.

The concentration of loans in a few countries violated a cardinal rule of prudent banking that portfolios should be diversified and risks spread among different customers. The belief that oil producing countries were good risks since real oil prices were expected to continue rising, the insurance on bank deposits provided by the Federal Deposit Insurance Corporation and the feeling that no bank would be allowed to go under as all banks were in a similar position, all contributed to the complacency about loan concentration.

Capital Inadequacy

In most general terms capital means ownership or equity raised by selling shares or retaining earnings. In banking the definition of capital includes loan loss reserves and long term debt. Long term debt is normally payable after satisfying depositors. It thus performs a function similar to capital.⁸

During the 1950's the ratio of capital to risk free assets was established at 20 per cent. As big money center banks expanded their loan portfolios faster than their capital, their capital to assets ratio declined steadily during the 1960's and 1970's. By the early 1980's many banks had capital to assets ratios of 5 per cent or less. Shareholders' equity, which makes up most of a

8. See Brian Ketell and George Magnus, "The International Debt Game" (London, 1986), p.7.

bank's capital reached a low of 3.4 per cent of assets of big banks in 1979.⁹

However, the decline in capital ratios was not always an indicator of greater risk in the banking system. Higher capital ratios protect depositors and help to avoid financial panic,¹⁰ but they limit financial intermediation by limiting the growth of the banking sector and increasing the spread between borrowing and lending rates. The greater economic stability, especially after 1945, along with increased governmental roles made banks avoid planning for worst case scenarios. The rapid expansion of national and international money markets meant that banks, to some extent, could substitute access to liquidity for access to capital. Deposit insurance lessened the need to retain a given level of capital and reserves. The continuously rising inflation from the late 1960s until the early 1980s with its impact on tax treatment of retained profits and bank share prices was a major disincentive to increase capital resources. Thus, capital, per se became a necessary but not a sufficient condition for the soundness of the banking system.

However, from the 1970s onwards the low capital asset ratios meant that bank's capital was inadequate to cushion the losses possibly arising due to the decline in the quality of bank assets.

9. *Maggie McComas, "More Capital Won't Cure What ails Banks", Fortune, January 7, 1985.*

10. *Unless increased capital raises the cost of funds to banks which means banks may chase higher rates of return and therefore expand into high risk portfolios.*

Developments After 1982

Bank Exposure

Table 3.5 shows the change in bank lending. Although the widely publicized negotiated loan agreements are termed "new money" packages, U.S. bank exposure to the problem debtor countries fell in absolute dollar amounts during 1979-82. The claims on the public rose by 53 per cent while claims on the private sector declined by 45 per cent. To some extent this was because the government had taken over some of the private sector debt and some of the claims have been written off. Technically, the net resource transfer (equal to new lending net of amortization and interest payments) to the debtors is negative as the "new money" packages have offered considerably less in loans than is due to the same creditors in interest.

Bank Earnings

Ironically, during 1982-86 the debt crisis did not have an adverse impact on the reported current earnings of banks even though it called into question their very solvency. One of the reasons was the fact that the bank regulators allowed banks to report the interest received in full as current income, even when interest payments were clearly tied to new loans.

The reported net income rose between 1982-89 (see Table 3.6) for all the nine major banks except for the Bank of America which suffered losses on its domestic loan portfolio. Table 3.7 shows that the share of developing country assets on a non-accrual basis was only slightly higher than that of

loans on a non-accrual basis.¹¹ Only in 1987 have the income statements of the banks begun to suffer as some of the larger debtors especially Brazil have suspended interest payments and more importantly as banks have made significant additions to loan loss reserves. Because of loan loss provisions, the large U.S. banks showed losses of about \$ 10 billion in the second quarter of 1987.¹²

Capital Adequacy

New regulations promulgated in the early 1980s called for a rise of primary capital to total assets from 4 per cent to 5.5 per cent. Total capital (primary capital plus certain types of qualifying subordinated debt) was required to rise to 6 per cent of total bank assets.

The capital adequacy rules have been enforced on paper and the capital base of U.S. banks has been strengthened. However, for banks' capital to forestall adverse incentive problems it should consist of shareholders' equity. But the measure of primary capital used for capital adequacy requirements includes both equity and loan loss reserves. Thus, even when banks make loan loss provisions, measured primary capital is unaffected as the loan loss provision involves a transfer between shareholders' equity and loan loss reserves.

11. *Non-accrual loans are those on which interest servicing is behind schedule or sufficiently sporadic so that interest payments are credited to the bank only as it is received (on a cash basis) rather than the more typical procedure of crediting interest as it accrues.*

12. *Jeffrey Sachs and Harry Huizinga, n.4, p.570.*

The U.S. commercial banks enjoyed rising capital asset ratios during 1982-86 as shown in Table 3.8 but suffered a significant decline in the ratio of shareholders' equity to assets as of mid-1987 (see Table 3.9) when they increased their loan loss reserves substantially.

Jeffrey Sachs and Harry Huizinga have attempted to create an equity asset ratio based solely on market values.¹³ They find that on average for the ten large banks the ratio of equity at market value to assets rose from 3.2 per cent in 1983 to 5.5 per cent in June 1987, suggesting some real increase in capital adequacy.

*The Impact of the Debt Crisis on the Market
Valuation of Commercial Banks*

The regulators and the banks have so far operated as though claims on the developing countries are worth their full value despite overwhelming evidence to the contrary. The stock markets have however written down the value of banks with heavy exposures in the problem debtor countries. Table 3.10 compares prices and earnings of nine banks with the heaviest recorded exposure in Argentina, Brazil, Venezuela and Mexico with those of the nine banks with no exposure. For the heavily exposed banks with an average exposure of 130 per cent of book value, the average ratio of stock market value to book value at the end of 1986 was one per cent compared to 1.5 for the banks with zero exposure. Similarly, the heavily exposed banks had a price earnings ratio of 5.6 compared with 10.3 for the banks with zero exposure.

13. *Ibid.*, p.574.

Conclusion

The banking boom of the 1970s was triggered by the bonanza of petrodollars available and the existence of the Euro-currency market which facilitated the recycling of petrodollars to developing countries in the form of Euro-credits. The bank decision-making processes were crucial in creating the phenomenon of overlending by commercial banks. Absence of adequate banking regulation, inadequate information and analysis, reliance on government guarantees, all combined to result in overlending.

Capital adequacy has an important bearing on the soundness of the banking system. Each of the nine largest U.S. Banks has more than 100 per cent of its shareholders' equity in just four countries - Mexico, Brazil, Venezuela and Argentina. If these four countries were to default in their payments the banks would instantly have negative net equity, their shareholders would presumably be wiped out and the Federal Government would have to provide the necessary equity capital to keep the banks operating. To avoid this, the U.S. government has been lending to Latin American debtors to avoid a suspension of the debt payments.

In response to the debt crisis U.S. Banks have virtually stopped making new loans to the problem debtor countries. The new lending has remained confined to specific bail out packages. Banks have reduced the ratio of developing country exposure to capital and increased their capital bases. The policy of bank regulators to allow banks to treat interest flow financed by additional loans to developing countries as current income seems to have been

intended to hide facts from depositors. Despite the official optimism of the U.S. government and the creditor community the stock markets have written down the value of banks with heavy exposures in the problem debtor countries. The negative resource transfer might make losing new money of little concern to a debtor country if the reduction in interest payments achieved by default exceed the new money that the country is able to borrow by not defaulting. The pattern of concerted lending packages among the debtor governments has illustrated the fact that it is the country with large loans that has been able to bargain for new lending from banks.

In 1988, as in recent years, commercial banks have remained reluctant to provide new funds to debtors. Of the six debt-restructuring agreements between January and September 1988, only one for Brazil contained a significant new money component (5.2 billion). That package represented about 70 per cent of the expected total concerted lending commitments in 1988 and served mostly to clear up interest arrears that Brazil had accumulated since 1987.

II. ADJUSTMENT AND FINANCING IN THE DEVELOPING COUNTRIES: THE ROLE OF THE IMF IN THE DEBT CRISIS

The IMF was born at the Brettonwoods Conference in 1944 along with the World Bank. These institutions created to foster economic cooperation have changed as the world economy has changed considerably since then.

Article I of the IMF's constitution, which specifies the objectives of the Fund, requires it to play the dual role of ensuring that its members observe a code of international behaviour particularly with respect to payments

restrictions and exchange rates and as an international institution providing financial assistance to members experiencing balance of payments difficulties. Its ability to perform the first task is enhanced by the financing it can make available in the second role; its credits are made available on the condition that the code of behaviour is observed and many of the policy conditions attached to Fund credits can be traced directly to the objectives in Article I.

Forms of IMF Support

The IMF provides balance of payments support through the special Drawing Rights, the Reserve Tranche, the Credit Tranches and various facilities like the Extended Fund Facility, the Compensatory Financing Facility, the Buffer Stock Financing Facility and the Supplementary Facility.¹⁴ The Special Drawing Rights and the Reserve Tranche are easily accessible to members. Credits in the upper credit tranche have been a source of controversy because of the conditionality attached to them. For most of the above resources, the Fund charges rates of interest considerably below the commercial rates, although it is much higher for the use of supplementary facility. The first and upper credit tranche have emerged as the single most important facility over the period, followed by SDR allocations. In recent years, an overwhelming majority of upper tranche credits have gone to the non-oil developing countries.

Use of Fund Resources by Developing Countries: During the mid-1970s the majority of the developing countries drew on the Fund, with 1976 being a peak year (see table 3.11). By 1981-82 total purchases by developing countries

14. For a detailed description see Tony Killick ed., "The Quest for Economic Stabilisation: The IMF and the Third World," (London, 1984), p. 146.

had reached record levels after declining in 1977 and 1978. The geographic break-down reveals (see table 3.12) that prior to 1977 the Latin American and Caribbean countries had drawn most from the Fund. During 1977-81, the countries of Latin America borrowed from commercial sources which did not impose any policy conditionality the IMF and the countries in Asia made the largest drawings. But in 1983 again the Western Hemisphere made the largest drawings amounting to SDR 6,608 million due to the external payments problems.

The Significance of Fund Finance to Developing Countries

For most of the period since 1973 the IMF emerges as a relatively insignificant source of finance to developing countries see Table 1.11 (see Chapter 1). For the period 1973 to 1981 the use of IMF credit by non-oil developing countries amounted to 5 per cent of their net external borrowing to finance the current account deficit. However, the increased importance of the IMF after the outbreak of the debt crisis is evident from the doubling in the share of IMF credit in total external borrowing since 1982.

The Use of Fund Credit by Mexico

Mexico has made extensive use of IMF facilities only in times of extreme economic crisis - in 1977 and then in 1982. While Mexico did not make use of fund credit from 1973 to 1975, IMF credit financed approximately 9 per cent of Mexico's current account deficit during 1976-79. Debt service problems compelled Mexico to borrow from the IMF in 1982 after abstaining in 1980 and 1981 and it entered into the second Extended Fund Facility agreement.

The IMF Stabilisation Programs

Conditionality while not explicitly required by the Fund's constitution for access to its resources is justified by some provisions in the articles of agreement (see Article V3(a)). The principle of conditionality is accepted by most developing country critics of Fund's policies. Acceptance of the principle is, for example clearly implied in the Group of Twenty Four's¹⁵ assertion of the necessity of 'setting conditionality with due regard to the causes of deficits" ¹⁵ It is the content of conditionality which is at issue.

The chief components of conditionality attached to a Fund stabilisation programme are: (a) preconditions; (b) performance criteria (c) other measures written into the letter of intent. Preconditions relate to policy actions which must be undertaken before a programme is put up for approval by the IMF. Performance criteria are policy targets or ceilings included in letters of intent in quantitative or objective terms. Failure to meet the criteria make a country ineligible for any outstanding instalment of credit unless the Fund agrees to a waiver. Ceilings on credit to the government (for public sector) and total domestic credit are by far the most common performance criteria as confirmed by the Fund's research.¹⁶ Other measures written into the letter of intent relate to various aspects of monetary, fiscal, pricing, wage and trade policies.

15. Tony Killick, (ed.), n. 14, p. 185.

16. T.M. Reichmann, "The Fund's conditional assistance and the problems of Adjustment", Finance and Development, December, 1978.

Impact of the Fund's Stabilisation Programmes:

Concern about Fund conditionality would carry little weight if the Fund programmes were generally successful. However, there is accumulating evidence that the Fund's programmes are not achieving their objectives and have limited effectiveness.¹⁷ These studies find that Fund programmes are associated with a modest short term improvement in the current account but result in a net short run increase in inflation rates rather than the desired reductions. They also result in additional inflows of capital, but of a modest amount. Both Stand-bys and Extended Fund Facility programmes are subject to frequent breakdowns.

In the recent past, the IMF stabilisation programmes have resulted in an excessive degree of austerity for several of the debtor countries in Latin America. These countries have been a case of overkill', i.e. the economic retrenchment brought about by the austerity measures was more than required to bring the balance of payments into equilibrium. The reductions in aggregate demand went beyond what was required to make room for an expansion in the production of exportables and those of importables benefiting from the new structure of relative prices. The curtailment of demand was followed by a slowdown in capital formation as reduction in public investment was accompanied by a loss of confidence by the private sector reflected in capital flight.

17. For published evidence see (i) W.A. Beveridge and M.R. Kelly, 'Fiscal Content of Financial Programmes supported by arrangements in the Upper Credit Tranches 1969-78. IMF Staff Papers (2) June 1980. (ii) Donald Donovan, "Macroeconomic Performance and adjustment under Fund supported Programmes: the Experience of the Seventies IMF Staff Papers, 29(2), June, 1982.

Another criticism of the conditionality in the Fund's programmes relates to its conflict with the growth objective as the individual policy measures often result in lower investment. Furthermore, if export supply cannot be increased in the short run for structural reasons, then devaluation may have an inflationary impact on the economy leading to adverse effects on income distribution. Reliance on devaluation may also reduce developmental imports with harmful long run effects on economic growth. The small amount of finance provided and strict conditionality attached leads countries into making every effort to avoid recourse to the Fund. The lightening of conditionality after mid-1981 in an environment of world recession and unemployment has enhanced its deflationary impact on the world economy.

Some evidence with respect to the above criticisms with reference to Latin America has been presented in Table 3.14. The decline in commercial bank exposures has compelled the governments to pay the interest on external debt by cutting down on investment spending and printing new money. The latter has resulted in runaway inflations in Argentina, Bolivia, and the prospect of future budget deficits have contributed to capital flight. The Latin American private sector has resorted to capital flight of the order of \$ 30 billion from 1983-85. Net investment in physical capital in Latin America was a remarkably low 5.5 per cent of the GNP during 1982-85, less than half of the preceeding decade.¹⁸ The slow down in investment due to austerity measures has limited growth prospects in the entire region. As Table 3.14 shows, per capita GDP has decreased almost uniformly across the region during 1983-85.

18. Jeffrey D. Sachs, "A New approach to managing the debt crisis", Columbia Journal of World Business, Fall 1986, p.43.

Recent Fund research recognizes the weak analytical and empirical basis for its conditionality and the complex and potentially adverse effects that credit control may have on output and employment, something which is inconsistent with the strict monetarist approach.¹⁹ Some of its publications also accept many of the criticism that have been made of the monetarist model.²⁰ But there is little evidence of the impact of the approach on operations.

The IMF Stabilisation Programs in Mexico

Mexico has so far entered into two Extended Fund Facility arrangements (EFF) with the IMF since 1975. The first EFF arrangement was to be in effect from January 1977 to December 1979, and the second was from January 1983 to December 1985. The first EFF agreement involved a three year program for 1977-79 with annual renewal at the end of first and second years. Total potential use of IMF resources under the agreement amounted to SDRs 833.125 million (equivalent to \$ 965 million). The reasons for the adoption of the program have been documented earlier. The Mexican government imposed export taxes to prevent windfall profits from peso devaluation, suspended export incentives, dismantled import licence requirements and continued the subsidies on essential consumer goods. The objective of these measures was to restore higher growth rates, reduce inflation and lower the current account deficit.

19. See Mohsin S. Khan and Malcolm D Knight, 'Stabilisation in Developing Countries : A Formal Framework IMF Staff Papers, March 1981.

20. See Carl. P. Blackwell, "Monetary Approach to the Balance of Payments needs blending with other lines of analysis", IMF Survey, 20 February and 6 March, 1978.

All the targets of the program were met. The gross international reserves of the Bank of Mexico declined by about \$ 300 million in 1976 to \$1.3 billion and then recovered to about \$ 2 billion in 1977-78. The public sector deficit, 9.5 per cent of GDP in 1976 decreased to 6.6 per cent in 1977 and rose to 7.5 per cent of GDP in 1978. Surpluses in Mexico's current account rather than the expected deficits were because of the discovery of oil reserves in 1978. Although the austerity of the Mexican stabilisation program was softened by the three year time frame, the burden of adjustment did fall heavily on the wage earners. Because of the continuing inflation real wages declined in 1977 and 1978 and wage policy also became a part of adjustment.

Mexico has been a model debtor in respect of following the prescriptions of the IMF. The 1983-85 economic adjustment was outstanding when compared to other Latin American countries. The trade balance already showing a substantial trade surplus in the second half of 1982 climbed to \$ 14.2 billion in 1983, converting the current account deficit to a surplus of \$5.5 billion. However, the decline in imports of 42 per cent was the major factor in the external adjustment. This had a negative impact on economic growth - GDP fell by 5.3 per cent instead of the expected 0 per cent in 1983. Mexico was clearly a case of 'overkill'.

IMF and the Debt Crisis

The IMF has often been charged with the failure of preventing the debt crisis from arising in the first place. If the Fund's surveillance had

worked as it should the financial imbalances of the 1980s could have been avoided. During the period of unrestrained commercial bank lending the IMF cannot be said to have exercised adequate restraint and foresight on the process as a whole. It has, of course, never been in a position to constrain the economic decisions of the US policy makers, the capital surplus countries or major commercial banks as they fund IMF operations. When most of Latin America was enjoying easy access to commercial credit the Fund's leverage was confined to the fringe of uncreditworthy low income countries.

The IMF lacked both the authority and the inclination to prevent future debt servicing problems. This was evident in the way in which the IMF agreed to major modifications in the Mexican 1976-79 stabilisation plan once the commercial bankers were no longer concerned about the country's creditworthiness. Even as late as 1981 the World Development Report commented, "Their (oil exporters) borrowing prospects look as promising as they did at the time of the 1973-74 oil price increase. Despite their heavy borrowing in the past, they are unlikely to run into debt management difficulties provided they invest their borrowed funds productively and develop their non-oil exports".²¹ Soon after both Mexico and Brazil faced debt servicing difficulties and their debt had to be rescheduled. Even when the IMF visualized oncoming debt servicing problems, the warnings were couched in general terms and thorough country studies were not attempted.

21. World Bank, World Development Report, (Washington, D.C., 1981), p.60.

The Role of the IMF After the Outbreak of the Debt Crisis

The IMF could be regarded as a "fire fighting machine" that remains largely in the background in the absence of emergencies. After Mexico suspended interest payments for three months in August 1982, the IMF assumed the role of the chief organiser of international debt relief. In a rescue operation, the US Treasury and the Federal Reserve announced their participation in an arrangement under the aegis of the Bank for International Settlements to provide \$ 185 million in short term financing to Mexico. In addition the US government provided \$ 2 billion in import credits and advance payment for purchases of Mexican oil. These 'bridge' loans were to allow time for a program supported by IMF financing to be formulated.

At the end of 1982, after protracted negotiations, the Fund approved Mexico's use of its resources upto SDR 3.6 billion. However, the adjustment program could not be implemented without adequate financing. An estimated \$ 7 billion in net new financing would be required in 1983, \$ 5 billion of which was sought from commercial banks and \$ 2 billion from official sources. To encourage the financing of the amount, the Fund, in a sharp departure from past practice, made the granting of its own financial support conditional upon the commercial banks making a commitment to provide the required funds before the IMF approved the country's program and the associated use of the Fund's resources. This development altered the role of the Fund in relation to commercial banks; in addition to its certification function the Fund developed a co-ordinating 'catalytic' role as a mobilizer of funds from other resources.

Finally, the financing was arranged with as many as 530 commercial banks participating in the \$ 5 billion credit raised from commercial banks.

A pattern quickly developed to cope with the problems of major debtor countries : (i) Austerity programs were negotiated with the IMF. (ii) A Committee of lead banks was created to coordinate refinancing of external debt with hundreds of smaller regional banks involved. (iii) Net new involuntary lending was made by banks to countries which complied with the IMF programs. (iv) In some cases, there was a refinancing of the supply credits guaranteed by industrialised countries through the informal committees of government creditors known as the "Paris Club".

The IMF's unique capacity to oversee domestic stabilisation programs has been the key to its involvement in debt negotiations. Fund loans are conditioned upon approved programs. Borrowers submit to such programs reluctantly and do so to get additional funds from private banks and official creditors. Between August 1982 and the end of 1984, the IMF lent \$ 22 billion in support of economic adjustment programs in 70 countries.²² Each dollar of the Fund's lending released between four and seven dollars of new loans and refinancing from banks and industrial country governments.²³ However, the IMF's role as an essentially short term lender meant that it could not sustain the initial injection of its own cash, the catalyst for new money from banks : the total of credit outstanding began to fall after 1985.

22. *The Economist*, "Lender of last Resort", vol.306, No.7536 (London, February 6, 1988), p.71.

23. *The Economist*, "Whither the Fund", vol.306, No.7536, (London, September 24, 1988), p.77.

Merely to have contained the debt crisis can be counted as a success. However, what was seen as a liquidity problem and therefore suited to the IMF's skills is really a matter of structural change. Keeping this in mind, the Fund should start giving way to the World Bank as the principal multi-lateral agency for the next stage of adjustment in debtor countries.

CONCLUSION

Any evaluation of the role of the IMF in the debt crisis has to begin in the early 1970s when the IMF found itself operating in an environment markedly different from what it was originally intended for. Throughout the 1970s, the IMF assisted developing countries within its traditional sphere of operations, resisting any substantial modification of this very limited sphere.

One of the principal functions of the IMF has been to assist member countries experiencing serious payments disequilibria. But the IMF support provided to its members during the 1970s was clearly insufficient to tide over the increasing current account deficits. The response to the inadequacy of IMF support was different for different groups of developing countries. The high and middle income countries of Latin America and Asia financed their current account deficits by going in for increased commercial borrowing. Even the low income countries which were not creditworthy like the high and middle income countries were reluctant to borrow from the IMF because of the conditionality involved in stabilisation programs. Moreover, the IMF was designed to provide temporary support while the deficits experienced by developing countries turned out to be of a longer duration.

Since 1982, however, the IMF has necessarily adopted a much higher profile. As an emergency measure, the Group of Ten agreed to an unscheduled and substantial increase in Fund resources in January 1983. Despite this, its resources remained small in relation to the magnitude of financing needs. It therefore remained essential for the Fund to enforce its conditionality clauses quite severely, and to insist on fairly quick results in order to maintain a revolving fund. Probably the major innovation of this period was the IMF's catalytic role in inducing commercial banks to provide emergency 'involuntary' lending followed by large scale debt rescheduling operations which substantially lengthened the time the commercial banks had to wait to receive payments of their outstanding debt. The IMF's 'seal of approval' was a vital element in bringing about the most important of these agreements (for e.g., the 1985 agreement that postponed almost half of Mexico's official debt into the 1990s authorized as reward for Mexico's apparent good conduct under its 1983-85 Extended Fund Facility Agreement). This was a major and constructive new role for the Fund, although much of the involuntary lending must essentially be regarded as a book-keeping operation since the funds supplied were just enough to pay interest to the creditors.

The underlying rationale of the Fund's approach has been that after a sufficiently vigorous short term adjustment policy the typical heavily indebted country would once again become creditworthy and further adjustment would become unnecessary. Most experience since 1982 indicates the inadequacy of this approach. Commercial bank exposure in the highly indebted countries

has declined making the IMF programs less attractive. The debt problem still persists leading to a consensus that new lending must be supplemented by voluntary debt reduction for the highly indebted countries.

Table - 3.1 - Share of Commercial-Bank Borrowing in the Current-Account Financing of Non-Oil Developing Countries
[1974-83] (billions dollars)

	1974-76 ^a	1977-79 ^a	1980	1981	1982	1983
Current-Account Deficit	38.6	44.9	87.7	109.1	82.2	56.4
Net External Borrowing	30.3	45.3	85.9	102.9	73.2	51.2
Borrowing from Banks and Non-Bank Suppliers ^b						
Long-Term	14.7	21.7	38.4	50.9	22.3	43.1
Short-Term	7.7	7.5	22.2	19.6	14.0	22.9
Total	22.4	29.2	60.6	70.5	36.3	20.2
TOTAL BORROWING from banks as share of net external borrowing	73.9%	64.5%	70.5%	68.5%	49.4%	39.5%

a. Annual average

b. Bank borrowings account for most of these flows; a separate breakdown is unavailable

SOURCE: INTERNATIONAL MONETARY FUND OCCASIONAL PAPER NO. 27, WORLD ECONOMIC OUTLOOK
[WASHINGTON D.C. : APRIL 1984] Table 31, p.200.

Table - 3.2 : Exposure of US banks in eastern Europe and non-oil developing countries, relative to capital (percentages, end year)

	1977	1978	1979	1980	1981	1982	Value, 1982 (Million dollars)
<i>All Banks</i>							
Eastern Europe	16.7	15.8	16.1	13.9	12.9	8.9	6,278
Nonoil LDCs	114.9	114.4	124.2	132.3	143.3	146.1	103,181
Sum	131.6	130.2	140.3	146.2	163.5	155.0	109,459
Mexico	27.4	23.4	23.0	27.6	34.3	34.5	24,377
Brazil	29.4	28.6	27.3	25.4	26.9	28.9	20,438
<i>Nine largest Banks</i>							
Eastern Europe	25.0	23.5	23.9	21.8	19.5	13.9	4,045
Nonoil LDC's	163.2	166.8	182.1	199.3	220.6	221.2	64,149
Sum	188.2	190.3	206.0	221.1	240.1	235.2	68,194
Mexico	32.9	30.4	29.6	37.8	44.4	44.4	12,262
Brazil	41.9	42.4	40.3	39.3	40.8	45.8	13,200

SOURCE: W.R. Cline, 'International Debt: "Systemic Risk and Policy Response"
Institute for International Economics (Washington D.C. 1984), p. 32.

Table 3.3: Exposure as percentage of capital, major banks, end 1982.

	Argentina	Brazil	Mexico	Venezuela	Chile	Total	Capital (million dollars)
Citibank	18.2	73.5	54.6	18.2	10.0	174.5	5,989
Bank of America	10.2	47.9	52.1	41.7	6.3	158.2	4,799
Chase Manhattan	21.3	56.9	40.0	24.0	11.8	154.0	4,221
Morgan Guaranty	24.4	54.3	34.8	17.5	9.7	140.7	3,107
Manufacturers Hanover	47.5	77.7	66.7	42.4	28.4	262.8	2,592
Chemical	14.9	52.0	60.0	28.0	14.8	169.7	2,499
Continental Illinois	17.8	22.9	32.4	21.6	12.8	107.5	2,143
Bankers Trust	13.2	46.2	46.2	25.1	10.6	141.2	1,895
First National Chicago	14.5	40.6	50.1	17.4	11.6	134.2	1,725
Security Pacific	10.4	29.1	31.2	4.5	7.4	82.5	1,684
Wells Fargo	8.3	40.7	51.0	20.4	6.2	126.6	1,201
Crocker National	38.1	57.3	51.2	22.8	26.5	196.0	1,151
First interstate	6.9	43.9	63.0	18.5	3.7	136.0	1,080
Marine Midland	n.a.	47.8	28.3	29.2	n.a.	n.a.	1,074
Mellon	n.a.	35.3	41.1	17.6	n.a.	n.a.	1,024
Irving Trust	21.6	38.7	34.1	50.2	n.a.	n.a.	996
First National Boston	n.a.	23.1	28.1	n.a.	n.a.	n.a.	800
Interfirst Dallas	5.1	10.2	30.1	1.3	2.5	49.2	787

n.a. Not available

SOURCE : CLINE. W.R., (table) no. 3.2.

Table - 3.4 - U.S. BANKS AND LATIN AMERICAN DEBT [in billions of dollars]

Amount Lent by 10 largest U.S. bank holding cos. to
Four Latin American Countries - Mexico, Brazil, Argentina &
Venezuela as of Dec 31, 1984

	BANK ASSETS	TOTAL LATIN EXPOSURE	EXPOSURE AS A PERCENTAGE OF	
			ASSETS	PRIMARY CAPITAL
<i>Citibank</i>	134.7	10.2	7.6	154.3
<i>Bank America</i>	121.2	7.1	5.9	116.7
<i>Chase Manhattan</i>	81.9	6.1	7.5	136.5
<i>Manufacturers Hanover</i>	64.3	6.4	10.0	200.3
<i>J.P. Morgan</i>	58.0	4.2	7.2	102.9
<i>Chemical N.Y.</i>	51.2	3.8	7.5	136.0
<i>First Interstate</i>	44.4	1.4	3.1	53.0
<i>Continental</i>	42.1	2.0*	4.7	82.7
<i>Security Pacific</i>	40.4	1.3	3.1	58.4
<i>Bankers Trust</i>	40.0	2.7	6.7	119.4

*Exposure as a Sept., 20, 1983.

SOURCE: MARY H. COOPER, "BRETTON WOODS : FORTY YEARS LATER EDITORIAL

RESEARCH REPORTS (Washington, D.C.) vol.,1, No.23 (1984),

pp 451-66.

Table - 3.5 Changes in Bank Loan Exposure, 1979-86

Country	Percentage change in exposure, 1979-82			Percentage change in exposure 1982-86		
	Total	Public	Private	Total	Public	Private
Argentina	71	165	41	4	84	-44
Bolivia	-31	- 8	-54	-75	-70	-84
Brazil	50	78	38	10	92	-36
Chile	147	17	226	6	267	-50
Colombia	47	83	35	-33	19	-57
Costa Rica	-12	27	-35	-16	42	-81
Dominican Republic	33	10	65	-15	49	-75
Ecuador	29	22	33	7	147	-77
Gabon	-33	-35	2	-72	-76	-30
Guatemala	-47	57	-54	-60	27	-75
Honduras	-34	30	-57	- 9	17	-38
Ivory Coast	46	42	63	-43	-41	-50
Jamaica	11	8	19	-22	-05	-68
Liberia	-16	-43	-15	-67	-55	-67
Malawi	-20	-41	46	-54	-49	-61
Mexico	113	131	102	- 3	50	-38
Morocco	15	-23	121	18	27	9
Nicaragua	- 2	70	-76	-84	-84	-84
Nigeria	149	54	501	-51	-39	-63
Panama	31	485	24	-61	- 3	-65
Peru	82	27	139	-47	- 2	-72
Philippines	43	99	18	-11	45	-53
Poland	-18	13	-33	-69	-44	-89
Romania	-31	-28	-34	-50	-15	-79
Senegal	- 1	-35	251	-62	-38	-94
Sudan	8	28	-56	-82	-83	-67
Uruguay	230	492	65	1	28	-59
Venezuela	34	28	38	-21	15	-47
Yugoslavia	-71	-85	-64	-11	250	-64
Zaire	-39	-37	-73	-91	-94	21
Zambia	25	-11	231	-60	-39	-92
Overall exposure	42	52	36	-12	53	-48

SOURCE:

Jeffery Sachs and Harry Huizinga, Brookings Papers on Economic Activity, 2 : 1987, p.566.

Table - 3.6 : Bank Reported Net Income , 1980-87

Bank	1980	1981	1982	1983	1984	1985	1986	1987
<i>Citicrop</i>	449	531	723	860	890	998	1058	-999
<i>Bank America</i>	643	445	390	391	346	337	-518	-929
<i>Chase Manhattan</i>	354	412	308	430	406	565	585	-832
<i>Manufacturer's Hanover</i>	229	252	295	337	353	408	411	-1103
<i>J.P. Morgan</i>	342	348	394	460	538	705	873	952
<i>Chemical</i>	174	205	241	301	341	390	402	-703
<i>Security Pacific</i>	181	206	234	264	291	323	386	112
<i>First Interstate</i>	225	236	221	247	276	313	338	-165
<i>Bankers Trust</i>	214	188	223	260	307	371	428	-151
<i>First Chicago</i>	63	119	137	184	86	169	276	-438

SOURCE :

Sachs and Haizinga, (table) no. 3.5, p.569.



Table - 3.7 : Percentage of Bank Exposure to Latin America on Nonaccrual and Percentage of Other Bank Assets on Nonaccrual, End-1986

BANK	LATIN DEBT	OTHER ASSETS
<i>Citicorp</i>	3.8	1.6
<i>Bank America</i>	6.1	3.6
<i>Chase Manhattan</i>	3.0	2.0
<i>Manufacturer's Hanover</i>	0.8	3.0
<i>J.P. Morgan</i>	1.8	0.8
<i>Chemical</i>	1.3	2.3
<i>Security Pacific</i>	1.6	1.9
<i>First Interstate</i>	4.4	1.7
<i>Bankers Trust</i>	3.5	1.5
<i>First Chicago</i>	2.4	2.1
<i>Average</i>	2.9	2.0

SOURCE: Sachs and Huizinga, (table) no.3.5, p.569.

Table - 3.8 : Bank Primary Capital as a Percentage
of Total Assets, 1980-86

	1980	1981	1982	1983	1984	1985	1986
<i>Citicorp</i>	3.8	4.1	4.2	4.9	5.9	6.2	6.8
<i>Bank America</i>	4.0	3.9	4.3	5.1	5.8	6.1	6.9
<i>Chase Manhattan</i>	3.8	4.2	4.7	5.4	6.4	6.9	7.0
<i>Manufacturer's Hanover</i>	3.6	3.8	4.6	5.0	5.7	6.3	7.2
<i>J.P. Morgan</i>	4.7	5.1	5.6	6.9	7.0	8.0	8.3
<i>Chemical</i>	3.7	3.9	5.0	5.5	6.3	7.0	7.2
<i>Security Pacific</i>	4.9	4.7	4.9	5.3	5.8	6.4	6.4
<i>First Interstate</i>	5.1	5.0	5.0	5.8	6.1	6.2	6.1
<i>Bankers Trust</i>	3.5	4.0	4.5	5.6	6.2	6.4	6.5
<i>First Chicago</i>	4.7	4.3	5.0	5.6	6.1	7.2	8.3
<i>Average</i>	4.2	4.3	4.8	5.5	6.1	6.7	7.1

SOURCE: SACHS AND HUIZINGA, (table) no. 3.5, p.572.

Table 3.9 : Bank Shareholders' Equity as a Percentage of Total Assets,
1981 - June 1987

Bank	1981	1982	1983	1984	1985	1986	June 1987
<i>Citicorp</i>	3.6	3.7	4.3	4.2	4.4	4.6	2.7
<i>Bank America</i>	3.4	3.7	4.2	4.3	3.8	3.8	3.0
<i>Chase Manhattan</i>	3.9	3.9	4.3	4.5	5.0	5.1	3.2
<i>Manufacturer's Hanover</i>	3.2	3.9	4.2	4.3	4.6	5.0	2.7
<i>J.P. Morgan</i>	4.5	4.6	5.7	5.7	6.3	6.6	6.2
<i>Chemical</i>	3.5	4.1	4.5	4.9	4.9	5.1	3.0
<i>Security Pacific</i>	4.0	3.9	4.4	4.2	4.5	4.5	3.3
<i>First Interstate</i>	4.3	4.4	4.7	4.9	5.1	4.9	3.3
<i>Bankers Trust</i>	3.9	3.7	4.4	4.6	4.9	4.7	3.4
<i>First Chicago</i>	3.7	3.9	4.8	4.8	5.3	5.9	<i>n.a.</i>
<i>Average</i>	3.8	4.0	4.6	4.6	4.9	5.0	3.4

SOURCE: Sachs and Huizinga, (table) no. 3.5, p.573.

Table- 3.10 : Comparing Banks with Large Exposure and No Exposure
in Latin America

Bank	Exposure- book value ratio	Stock price- book value ratio	Price earnings ratio
<i>Banks with large exposure</i>			
<i>Citicrop</i>	1.2	1.1	6.6
<i>Bank America</i>	1.7	0.5	5.4
<i>Chase Manhattan</i>	1.4	0.8	5.1
<i>Manufacturer's Hanover</i>	1.8	0.6	4.7
<i>J.P. Morgan</i>	0.9	1.8	9.6
<i>Chemical</i>	1.4	0.8	5.4
<i>Wells Fargo</i>	0.7	1.6	9.3
<i>Marine Midland</i>	1.1	0.8	6.8
<i>Irving Bank</i>	1.4	0.8	6.1
<i>Average</i>	1.3	1.0	6.6
<i>Banks with no exposure</i>			
<i>Midlantic Banks Inc.</i>	0.0	1.6	9.5
<i>Michigan National</i>	0.0	1.3	8.5
<i>Meridian Bancorp</i>	0.0	1.2	10.0
<i>Bay Banks</i>	0.0	1.4	9.0
<i>First Security-Utah</i>	0.0	0.9	13.0
<i>State Street Boston</i>	0.0	2.7	15.1
<i>Commerce Bankshares</i>	0.0	1.1	9.2
<i>Dominion Bankshares</i>	0.0	1.5	9.3
<i>Amsouth Bankcorp.</i>	0.0	1.6	9.2
<i>Average</i>	0.0	1.5	10.3

SOURCE: Sachs and Huizinga, (table) no. 3.5, p.578.

Table-3.11: Use of Fund Resources by non-oil developing countries (in millions of SDRs)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total Purchases	475.5	823.7	410.1	1940.5	2474.5	3835.0	1035.2	1210.7	1769.9	3752.7	7081.7	8133.3	13212.6	8009.0	4198.6
Reserve Tranche	98.5	178.2	68.2	329.1	359.1	212.5	30.7	100.6	98.0	359.1	310.4				
Comp. Financ. Export															
Shortfalls	69.5	299.5	113.5	107.2	188.5	1863.1	240.5	479.0	572.0	980.4	1230.5	4787.5	7060.7	7262.6	6954.4
Comp. Financ. Cereal															
Import Excesses	-	-	-	-	-	-	-	-	-	-	12.0	333.9	285.1		
Buffer Stock	11.8	6.4	-	-	4.7	-	-	36.1	13.9	-	-	110.5	308.2	298.6	181.9
Oil Facility	-	-	-	939.7	1579.4	891.8	-	-	-	-	-	86.0	-	-	-
Credit Tranche															
Ordinary Resources	295.8	339.6	228.5	564.6	335.2	777.6	555.3	421.0	647.7	855.5	1662.2	3531.3	4938.2	5516.8	5760.0
Credit Tranche SFF	-	-	-	-	-	-	-	-	101.5	275.2	570.8	3592.3	4362.5	3852.2	3311.1
Credit Tranche EAR	-	-	-	-	-	-	-	-	-	-	480.6	565.9	2711.3	5022.7	5664.8
Extended Facility Ord. Resources	-	-	-	-	7.7	90.0	208.8	74.0	131.5	339.3	1040.8	2727.6	4953.0	6532.7	6550.2
Extended Facility SFF	-	-	-	-	-	-	-	-	101.5	275.2	570.8	1675.7	2483.7	2546.3	2394.8
Extended Facility EAR	-	-	-	-	-	-	-	-	-	-	480.6	834.8	2390.3	3830.6	4109.5
Gold Distributions	-	-	-	-	-	-	97.5	55.4	60.3	4.0	-				
Total Repurchases	432.1	502.5	488.3	449.0	415.9	871.9	1293.1	1997.8	1710.6	1906.4	1611.7				
Repurchases of Purchases	426.8	494.6	475.0	433.7	399.5	865.8	1290.6	1989.4	1612.5	1860.0	1592.5	1165.8	1925.9	2291.1	3376.3

SOURCE: IMF, IFS SUPPLEMENTS VARIOUS ISSUES

Table - 3.12 : All Purchases (Expressed in Millions of SDRS)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
<i>Non-oil developing countries</i>	410.1	1940.5	2474.5	3835.0	1035.2	1210.7	1769.9	3752.7	7081.7	8133.3	13212.6	8009.0	4198.6
<i>Africa</i>	31.0	235.0	465.3	914.2	320.2	309.1	539.7	874.1	1875.9	2620.7	1939.9	1225.9	1025.0
<i>Asia</i>	145.4	1025.9	802.9	776.4	295.7	334.9	355.7	1586.6	3229.4	2395.5	3499.1	1340.6	992.0
<i>Western Hemisphere</i>	89.0	308.9	610.2	1192.6	153.7	177.9	485.1	294.4	560.8	1856.1	6608.9	3989.0	1863.2
<i>Mexico</i>	-	-	-	416.9	100.0	-	-	-	-	361.7	1003.1	1294.5	295.8

SOURCE: IMF, INTERNATIONAL FINANCIAL STATISTICS YEARBOOK 1987.

Table - 3.13 : Current Account Balance Mexico : Use of IMF Credit (Million \$s)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Current Account Balance	-1415	-2876	-4054	-3411	-1849	-3163	-5459	-8162	-13899	-6218	5419	4240	1237	-1669	3884
Use of IMF Credit	0	0	0	371	509	299	136	0	0	221	1260	2360	2969	4060	5163
Fund Position (in millions of SDRs)															
St - By Arrangements															
Amount Drawn	-	-	-	-	-	-	-	-	-	-	-	-	-	450	1050
Undrawn Balance	-	-	-	-	-	-	-	-	-	-	-	-	-	950	350
Extended Arrangements															
Amount Drawn	-	-	-	-	100	-	-	-	-	-	1003	2207	-	-	-
Undrawn Balance	-	-	-	-	418	518	-	-	-	-	2408	1204	-	-	-
SDRs	128	129	86	1	47	43	152	113	153	5	22	3	-	7	498
Percent of Allocation	103	104	69	1	38	34	85	48	53	2	8	1	-	2	172
Reserve Position in the Fund	98	98	98	-	-	-	-	100	161	-	91	-	-	-	-
Use of Fund credit															
Gen. Dept.	-	-	-	319	419	229	103	-	-	201	1204	2408	2703	3319	3639
Incl: Comp. Finance Facility	-	-	-	185	185	185	100	-	-	-	-	-	-	-	-
Credit Tranche:															
Ordinary	-	-	-	134	134	42	-	-	-	201	201	201	201	617	674
Credit Tranche:EAR	-	-	-	-	-	-	-	-	-	-	-	-	-	225	667
Extended Facility;															
Ordinary	-	-	-	-	100	-	-	-	-	-	502	1103	1124	1124	1107
Extended Facility:EAR	-	-	-	-	-	-	-	-	-	-	502	1103	1379	1354	1191
Quota	370	370	370	370	370	535	535	803	803	803	1166	1166	1166	1166	1166
Fund Holdings of Currency	272	272	272	689	789	764	638	702	642	11003	2279	3573	3869	4485	4805
Per cent of Quota	74	74	74	186	213	143	119	88	80	125	195	307	332	385	412

SOURCE: WORLD BANK, WORLD DEBT TABLES 1988-89
IMF, INTERNATIONAL FINANCIAL STATISTICS YEARBOOK, 1988.

Table - 3.14

	Change in U.S. Bank Exposure, \$ billion (from mid 1984 to mid 1986)	Capital Flight \$billion 1983-85	Cumulative Change in per capita GDP 1981-1985	Consumer Price 1980 = 100				
				1981	1982	1983	1984	1985
Argentina	0.1	1	-18.5					
Brazil	-0.3	-3	-	206	407	985	2923	9556
Mexico	-1.7	-17	- 4.3	127.9	203.3	410.2	679.0	1071.2
Venezuela	-3.9	- 6	-21.6	116.2	127.3	135.3	151.8	169.1
10 Latin American debtor countries	-7.5	-30						

SOURCE :

MEXICO'S BALANCE OF PAYMENTS AND DEBT : 1982-1986.

The nature of Mexico's balance of payments problems can be determined by examining the evolution of the balance of payments between 1982-86. This chapter compares the actual performance of the balance of payments from 1982 to 1986 to the results obtained for the same indicators on the basis of a model incorporating the influence of varying global economic conditions as well as alternative adjustment efforts by the country.

The projection model developed by W.R. Cline¹ is used with certain modifications to calculate the external current account deficit, external debt and other balance of payments items for Mexico from 1982 to 1986. Firstly, actual average parameters for developing countries and growth of OECD countries together with the internal actions of Mexico are used in the model specifications to obtain the balance of payments for Mexico. These results are evaluated with respect to actual experience during the same period to see the difference between the scenario if Mexico had been average developing country and what actually happened. Secondly, sensitivity analysis is undertaken with respect to industrial country growth rates, international interest rates and Mexico's real exchange rates to see the relative impact of each of these on Mexico's balance of payments problems.

1. W.R. Cline, "International Debt : Systemic Risk and Policy Response", (Washington D.C. 1984), pp.240-256.

Model Specification :

$$(1) \quad X_t^o = X_1^o \left(\frac{P_t^o}{P_1^o} \right)$$

The value of oil exports in year t (X_t^o) equals their value in the base year 1 multiplied by the ratio of the international price of oil in year t (P_t^o) to the 1982 price.

The specification of non-oil exports is as follows :

$$(2) \quad X_t^{No} = 0.97 X_{t-1}^{No} (1+E_1 g_t^{dc}) (1+E_2 g_t^{dc}) (1+E_3 g_{t-1}^{dc}) \\ (1+0.5 E_4 \left[\left(\frac{R_t}{R_{t-1}} \right) - 1 \right]) + X_{t-2}^{No} (0.5 \left[\left(\frac{R_{t-1}}{R_{t-2}} \right) - 1 \right])$$

The initial elements $0.97 X_{t-1}^{No} [1+E_1 g_t^{dc}]$ represent the influence of industrial country growth on export volume from the developing countries. The elasticity with respect to OECD growth, E_1 equals 3.0.

The next two elements in equation (2) capture the response of real export prices (terms of trade) to industrial country growth. The specification in equation (2) captures this phenomenon by stating an elasticity of "real" non-oil export prices for the country in question with respect to the change in industrial country growth. Any acceleration or deceleration of OECD growth perturbs the equilibrium in the commodity markets. This means that once a stable growth rate plateau is reached, there is no further change in terms of trade. The formulation captures this effect for the current year (E_2 applied to g_t^{dc}) and for the lagged effect from the previous year (E_3 applied to g_{t-1}^{dc} ; g_t^{dc} is defined as $g_t^{dc} - g_{t-1}^{dc}$).

The remaining elements in the export equation capture the effect of the country's own real exchange rate on its exports- with R_t defined as the amount of domestic currency per dollar, deflating both pesos and dollars by home country and US prices respectively, (that is the "real" exchange rate), the final multiplicative term states that a real devaluation in year t causes the country's exports to rise by one-half times the export elasticity (E_4) times the percentage change in the real exchange rate. Similarly, exports in year t are augmented by a similar lagged effect of devaluation in the previous year (the final additive term in the equation). The export elasticity is a composite elasticity reflecting both the elasticity of foreign demand and that of domestic export supply to a change in the real exchange rate. The real exchange rate is a key element of domestic adjustment. The non-oil exports are multiplied by the non-oil export unit value to get the value in current prices.

Given equation (1) and (2), exports are :

$$(3) \quad X_t = X_t^o + X_t^{No}$$

Imports are influenced by domestic economic growth in the developing countries and the real exchange rate,

$$(4) \quad M_t = M_{t-1} \left[(1 + E_5 g_t^i) + E_6 (g_t^i - g_{t-1}^i) \right] - \left[1 / (1 + [0.5 E_7 \left(\frac{R_t}{R_{t-1}} \right) - 1]) \right] \\ \cdot M_{t-2} \left(0.5 E_7 \left[\left(\frac{R_t}{R_{t-2}} \right) - 1 \right] \right).$$

In this formulation, imports in year t (M_t) are based on the previous years' value. That value is increased, first, by a percentage reflecting the long term growth relationship between real imports and real GDP:

elasticity E_5 as applied to domestic growth, g_t^i . Over the long run imports may grow in strict proportion to income (elasticity E_5 equals 1.0), but in the short run a cyclical decline of GDP by one percent may make possible a cutback of 3 percent or more in imports. Accordingly, there is an additional term to capture cyclical response of imports to income : $E_6(g_t^i - g_{t-1}^i)$, where E_6 is the cyclical elasticity and $g_t^i - g_{t-1}^i$ is the change in growth rate from the previous year. The cyclical elasticity equals 3.0, corresponding to the import function used for industrial countries.

The following term in the import equation measures the effect of changes in the country's real exchange rate. The multiplicative term places the percentage change in the real exchange rate multiplied by the import elasticity with respect to the real exchange rate (E_7) in the denominator - so that a larger devaluation causes a smaller volume of imports, as in the case of exports, half of the exchange rate effect is attributed to the current year; the other half is lagged one year, the final additive term in equation (4). The imports are also multiplied by the import unit values to convert them into current prices.

Exports and imports of non-factor services are calculated respectively as constant proportions of non-oil exports and imports, determined from base year levels :

$$(5) \quad X_t^S = X_t^{No} \left(\frac{X_1^S}{X_1^{No}} \right)$$

$$(6) \quad M_t^S = M_t \left(\frac{M_1^S}{M_1} \right)$$

Interest payments are calculated as follows. The fraction of long-term debt that is at fixed interest rates is determined as "f". The average interest rate paid on fixed interest debt is determined as "i_f". For all remaining external debt - short term and long term - it is assumed that the interest rate paid equals the international rate "r" LIBOR, plus a spread of 1½ percent. Interest payments are thus:

$$(7) \quad I_t = i_f f D_{t-1}^{LT} + r_t (D_{t-1}^{ST} + (1-f) D_{t-1}^{LT})$$

where I_t equals interest payments, and D_t^{LT} and D_t^{ST} are long and short term debt at the end of year t respectively. The interest rates in a given year are applied to debt stocks at the end of the preceeding year.

Transfers as given in actual data are used.

The current account balance in year t is then the sum of the above elements :

$$(8) \quad C_t = X_t + X_t^S - M_t - M_t^S - I_t + T_t.$$

Given the current account, the capital account is constructed as follows. International investment and changes in reserves are taken to be constant and actual data for these is used. The new net lending required to finance the balance of payments is:

$$(9) \quad L_t = -C_t + * H - FI_t,$$

Where * H is the change in reserves and FI_t is the international investment. FI_t is the total of direct and portfolio

investment.

Total debt at the end of the year equals the previous year's debt plus net borrowing.

$$(10) \quad D_t = D_{t-1} + L_t.$$

The amortization on long-term debt equals the country's base period amortization rate, "a" (ratio of long-term debt amortization to end-of-year long term debt in the previous year) applied to long-term debt at the end of the preceeding year.

$$(11) \quad A_t = a D_{t-1}$$

To evaluate trends in debt servicing burden and creditworthiness four ratio's are calculated: the ratio of net debt to exports of goods and services (NDX_t); the ratio of debt service to exports of goods and services (DSR_t), the ratio of the current account balance to exports of goods and services (CAX_t); and the ratio of reserves to imports of goods and services (excluding interest), RSM_t .

Thus,

$$(12) \quad NDX_t = \frac{(D_t - H_t)}{X_t^{GS}}$$

$$(14) \quad CAX_t = \frac{C_t}{X_t^{GS}}$$

$$(13) \quad DSR_t = \frac{(A_t + I_t)}{X_t^{GS}}$$

and

$$(15) \quad RSM_t = \frac{H_t}{M_t^{GS}}$$

Where X_t^{GS} and M_t^{GS} are exports of goods and services ($X_t + X_t^S$) and imports of goods and services ($M + M_t^S$), respectively and H_t the non-gold

reserves.

The model had originally been applied by Cline to a group of developing countries, so all elasticities referred to reflect the elasticities of trade of that group of countries.

The elasticities used in the analysis are as follows:

E_1 is the elasticity of LDC export volume with respect to industrial country growth and equals 3.0; E_4 equals elasticity of LDC export volume with respect to the country's real exchange rate and its value is 0.5; E_1 equals elasticity of import volume with respect to real exchange rate and is 0.6. The income elasticity of LDC imports E_5 is assumed equal to unity while the cyclical elasticity of imports E_6 is set at 3.0. The terms of trade elasticities, E_2 and E_3 are based on simple regression estimates and equal 2.1 and 2.2 respectively for Mexico.

RESULTS

Table 4.1 presents the base case results obtained by substituting average actual parameters for the variables used in the model for the period 1982-86. For example, actual data for Mexico's exports, real exchange rates, imports etc. are used with the elasticities specified in the model. Table 4.1 thus presents the balance of payments performance for 1982-86 if it had been an average developing country. Table 4.2 presents the actual performance of the balance of payments for the same period. A comparison of the two shows that

Mexico's actual performance has been better compared to the base case in 1983 and 1984 on the basis of the average parameters and elasticities of the model. This was mainly a consequence of the better performance of non-oil exports following the devaluation of the real exchange rate after the outbreak of the debt crisis in Mexico. This increase in exports allowed imports to be cut less than the average estimated in the base case for LDCs for the whole period. The figures suggest that import compression in Mexico, while substantial has been considerably less than the average for highly indebted countries. It is clear that the spectacular external adjustment achieved by Mexico in 1983 and 1984 was a consequence of the increase in non-oil exports and the 40 percent reduction in imports from the 1982 levels. However, higher actual interest payments in 1985 and 1986 compared to the base case interest payments worsened the current account performance in comparison to the base case, because the actual interest rates were higher than used in the model to estimate base case interest payments, which were assumed to equal the international rate, LIBOR, plus a spread of $1\frac{1}{2}$ percent.

A comparison of the capital account items show that in contrast to interest payments, actual amortization was less than expected on the basis of the model. The amortization on long term debt according to the model equals Mexico's base period amortization rate (ratio of long-term debt amortization to end-of-year long debt in the previous year) applied to long term debt in the preceeding year. Actual amortization has been less than that estimated according to the model specifi-

cations due to the debt reschedulings which have taken place since 1982. The better performance of non-oil exports led to lower debt service and net debt to exports ratios compared to the base case.

Influence of stable industrial country growth rates on Balance of Payments :

Table 4.3 shows the results when the model variables are estimated under the assumption of 4 percent per annum industrial country growth rate from 1980 to 1986. Only the value of OECD growth rate used to determine the volume of non-oil exports changes, the other values, the other parameters and elasticities remain the same as in the base case. The 4 percent industrial country growth rate assumption is one percent more than the historical average of 3 percent for the period. Exports increase, when compared to the base case but not significantly. Exports show a decline in 1984, as the base case growth rate for 1984 was higher. Correspondingly, the current account also worsens for 1984. In the remaining years, the current account improves and so do the debt indicators. But the improvement is only marginal, for Mexico's balance of payments to improve markedly, industrial country growth rates would have to stabilize at a higher plateau.

Influence of interest rates on Balance of Payments :

Table 4.4 presents the results when interest rates are assumed to be 2 percent above the US inflation rates in each year from 1982 to 1986, other parameters and elasticities remaining the same as in the base case. A comparison with the base case results shows that the

balance of payments is very sensitive to interest rates. The current account deficit for 1982 is reduced from \$6.91 billion to \$2.2 billion. For 1983, the current account surplus is \$4.3 billion more than the base case, for 1984 it is \$5.51 billion more and for 1985 it is \$3.52 billion more. The current account deficit of \$0.51 billion in the base case is converted to a surplus of \$2.3 billion in 1986. The net lending requirement is reduced by \$4.7 billion for 1982. For 1983 through 1986, the net lending required assumes higher negative values. The lower interest payments also reduce the debt service ratios and the net debt to exports ratios.

Influence of Real Exchange Rates on the Balance of Payments

Table 4.5 and 4.6 show Mexico's balance of payments under varying assumptions about the real exchange rates, with the values of other parameters and elasticities being the same as in the base case. In Table 4.5, the real exchange rate is devalued from the actual exchange rates that prevailed in those years, while in Table 4.6, the exchange is devalued successively from the actual 1982 exchange rate. Table 4.7 shows these assumptions and the net impact of the assumptions taking into account the actual movements of the real exchange rate during 1982-86.

Comparing the results of Table 4.5 to the base case results, it is clear that devaluation stimulates exports while discouraging imports and thus has a positive influence on the current account. However, this impact is more significant in 1983 and 1986, when the

cumulative devaluation was 17.56 and 55.14 percent respectively. The high rate of devaluation in 1986 turns the current account deficit of \$0.51 billion into a surplus of \$2.6 billion. Under the assumption of Table 4.6, 1984 and 1985 show a markedly significant impact on the current account as the devaluation undertaken in these two years under the assumption was more as compared to those in Table 4.5 and to the actual movements of the real exchange rate (See Table 4.7). The results also show that devaluation of the real exchange by 15 percent or more has a noticeable impact on the current account and debt indicators.

Conclusion:

An examination of the results of the sensitivity analysis conducted shows that interest rates, the real exchange rate and OECD growth rates, all have an impact on the debt servicing burdens, though the effect of these policy changes is not of the same magnitude.

When interest rates are assumed to equal the real interest rates prevailing in the 1970's plus the US inflation rate in each year during 1982-86, the debt service ratio and the ratio of net debt to exports was reduced by more than 15 percentage points compared to the base case level. A devaluation of 15 percent reduced the debt service burden by an average of 4 percentage points from the base case. In 1984, a devaluation of 15 percent from the previous year's exchange rate reduced the debt to exports ratio by nearly 43 percentage points, while in 1986, an additional devaluation of 25 percent from the real exchange rate prevailing in 1986, reduced the debt to exports ratio by 56

percentage points. The assumption of OECD growth rate being one percent above the historical average of the 1970's reduced the debt service ratio by 2.3 percentage points in 1982, 0.2 percentage points in 1983, and 0.6 percentage points in 1985 and 3.3 percentage points in 1986 compared to the base case levels for the same years. A growth rate 0.5 percent less than the actual in 1984 worsened the debt service ratio by 2.9 percentage points and the debt to exports ratios by 17 percentage points.

The above patterns would indicate that if the real interest rates had been the same as in the 1970's, if the OECD growth been one percentage point above the average for the 1970's, and if the assumption implicit in table 4.6 regarding the real exchange rate devaluation had held, Mexico would not have faced severe payment problems in 1982. The validity of this hypothesis can be checked by estimating the debt indicators for Mexico during 1982-86 incorporating the above mentioned assumptions in the model, other parameters and elasticities remaining the same. The estimated debt indicators can then be compared to their actual performance in the same period as well as during the period 1973-79.

Table 4.8 shows the estimates of the net debt to exports and the debt service ratios on the basis of the three assumptions mentioned earlier, as well as their actual performance from 1973 to 1986. The average net debt to exports ratio for the period 1973-79 was 2.65 and for the period 1982-86 it was 3.42. The same ratio when estimated under the assumptions was 3.28. Thus, the three assumptions improve the

actual performance from 1973 to 1986. The average net debt to exports ratio for the period 1973-79 was 2.65 and for the period 1982-86 it was 3.42. The same ratio when estimated under the assumptions was 3.28. Thus, the three assumptions improve the estimated average net debt to exports ratio for 1982-86 by 4 percent from the actual average net debt to exports ratio. However, when the estimated average net debt to exports ratio for 1983-86 is compared to the average for 1973-79, it shows a worsening by 24 percent.

The average debt service ratio estimated for 1982-86 under the assumptions is 0.450, while the actual average for the same period is 0.579. The average debt service ratio for the period 1973-79 is 0.559. Thus the estimated average shows a 22 percent improvement over the actual average for 1982-86 and a 19.5 percent improvement over the average for the period 1973-79.

The examination of the above trends show that higher real interest rates did play an important role in creating debt servicing problems, as under the assumptions the average debt service ratio estimated for the period 1982-86 is lower than the actual average for the 1970's. However, a worsening of the average debt to exports ratio under the assumptions as compared to the 1970's shows that total debt has been growing rapidly and Mexico's ability to service its debt has been declining. A higher OECD growth rate and larger devaluations would be required to bring about a faster increase in exports and a net debt to exports ratio comparable to the 1970's.

In the period preceeding the debt crisis, Mexico received two external shocks : the positive oil shock and the negative shock in the form of high real interest rates. Thus, Mexico had an advantage over countries like Brazil and South Korea, which were net oil importers. Despite this, Mexico could not maintain its debt servicing ability. It is here that debt management and domestic macroeconomic policies acquire importance in explaining Mexico's debt crisis. The shift to short term borrowing at variable interest rates, during the 1970's and the bunching of maturities made large repayments due in the early 1980's. The over expansionary domestic macro-economic policy exemplified by the large fiscal deficits resulted in overvaluation of exchange rates and capital flight. The increasing fiscal deficits and capital flight were financed by external borrowing. The oil boom during 1978-82 helped to maintain Mexico's credit worthiness among the lending community.

Further research pinpointing differences in debt problems among countries would be very helpful in attaching weights to the relevance of external and internal causes of payments problems. For e.g. it would be instructive to compare Mexico to South Korea, which despite undertaking large external borrowing facing external shocks and being a net oil importer did not face debt servicing problems.

Table 4.1MEXICO'S BALANCE OF PAYMENTS, 1982-86 (BILLION DOLLARS), RESULTS OF BASE CASE:

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
EXPORTS	20.91	18.85	19.14	19.41	12.68
Oil	16.24	14.22	13.70	13.40	5.88
Non-oil	4.67	4.63	5.44	6.01	6.80
Services	4.33	4.31	5.06	5.60	6.32
IMPORTS	15.00	7.28	10.12	10.28	10.11
Services	4.44	2.15	2.99	3.04	2.99
INTEREST PAYMENTS	10.16	9.45	11.02	9.26	6.57
TRANSFERS	- 1.75	- 0.319	0.953	2.784	0.165
CURRENT ACCOUNT	- 6.91	3.96	1.02	5.21	- 0.51
INTERNATIONAL INVESTMENT	2.57	- 0.168	- 0.37	- 0.50	0.70
CHANGE IN RESERVES	3.55	- 2.02	- 2.13	2.76	0.17
NET LOANS	7.89	- 5.81	- 2.78	- 1.95	- 0.02
AMORTIZATION	4.53	4.78	6.53	6.89	7.08
RESERVES	0.83	3.91	7.27	4.90	5.67
TOTAL DEBT	86.18	80.08	89.02	90.6	93.89
DEBT SERVICE RATIO	0.614	0.614	0.725	0.646	0.718
NET DEBT TO EXPORTS RATIO	3.38	3.28	3.38	3.42	4.64
CURRENT ACCOUNT/EXPORTS	- 0.27	0.17	0.04	0.21	- 0.03
RESERVES/IMPORTS	0.04	0.41	0.55	0.37	0.43

Table 4.2

MEXICO'S BALANCE OF PAYMENTS : ACTUAL PERFORMANCE, 1982-86 (Billions of Dollars)

	1982	1983	1984	1985	1986
EXPORTS	21.29	22.23	24.18	21.67	16.03
Oil	16.24	16.07	16.32	14.43	6.20
Non-Oil	5.05	6.26	7.87	7.24	9.83
Services	4.33	4.39	5.36	5.29	5.14
IMPORTS	14.34	8.56	11.29	13.22	11.45
Services	4.44	3.26	4.02	4.06	3.81
INTEREST PAYMENTS ¹	11.16	9.16	11.06	11.27	7.76
TRANSFERS	-1.75	-0.319	0.953	2.784	0.165
CURRENT ACCOUNT	-6.07	5.42	4.17	1.19	-1.69
CAPITAL ACCOUNTS	11.45	-4.35	-3.18	0.65	1.30
CAPITAL EXCLUDING RESERVES	7.9	-2.348	-1.05	-2.11	1.13
INTERNATIONAL INVESTMENT	2.57	-0.618	-0.371	-0.50	0.70
OTHER LONG TERM CAPITAL	12.68	7.44	2.88	0.19	-0.30
OTHER SHORT TERM CAPITAL	-7.35	-9.62	-3.56	-1.8	0.73
CHANGE IN RESERVES	3.55	-2.02	-2.13	2.76	0.17
NET ERRORS & COMMISSIONS	-5.38	-1.07	-0.99	-1.84	0.39
AMORTIZATION	4.53	4.84	5.66	5.12	4.56
RESERVES ²	0.83	3.91	7.27	4.90	5.67
TOTAL DEBT ³	85.89	91.80	92.55	93.91	96.99
DEBT SERVICE RATIO	0.612	0.526	0.566	0.608	0.582
NET DEBT TO EXPORTS ³	3.32	3.30	2.89	3.30	4.31
CURRENT ACCOUNT/EXPORTS	-0.24	0.20	0.14	0.04	-0.08
RESERVES/IMPORTS	0.07	0.33	0.47	0.28	0.37

- 1) Include both long term and short term. It is assumed that the short term debt is subject to the same interest rate as the long term debt.
- 2) Reserves refers to non-gold reserves.
- 3) Total debt excludes the use of IMF credit.

SOURCES : Balance of Payments Statistics Year Book, 1988, International Financial Statistics Year Book, 1988 and World Debt Tables, 1988-89.

Table 4.3INFLUENCE OF OECD GROWTH RATE ON MEXICO'S BALANCE OF PAYMENTS, 1982-86 (Billion Dollars)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
EXPORTS	21.39	18.89	18.66	19.53	13.16
Oil	16.24	14.24	13.70	13.40	5.88
Non-oil	5.15	4.67	4.96	6.12	7.28
Services	4.33	4.34	4.60	5.69	6.77
IMPORTS	15.00	7.28	10.12	10.28	10.11
Services	4.44	2.15	2.99	3.04	2.99
INTEREST PAYMENTS	10.96	9.45	11.02	9.26	6.57
TRANFERS	- 1.75	- 0.319	0.953	2.784	0.165
CURRENT ACCOUNT	- 6.43	4.03	0.07	5.42	0.42
INTERNATIONAL INVESTMENT	2.57	- 0.168	- 0.37	- 0.5	0.7
CHANGE IN RESERVES	3.55	- 2.02	- 2.13	2.76	0.17
NET LOANS	6.95	- 5.88	- 1.83	- 1.98	- 0.95
AMORTIZATION	4.53	4.78	6.53	6.89	7.08
RESERVES	0.83	3.91	7.27	4.9	5.67
TOTAL DEBT	85.24	80.01	89.97	90.57	92.95
DEBT SERVICE RATIO	0.581	0.612	0.754	0.640	0.685
NET DEBT TO EXPORTS RATIO	3.22	3.27	3.55	3.40	4.38
CURRENT ACCOUNT/EXPORTS	- 0.23	0.17	- 0.003	0.21	0.021
RESERVES/IMPORTS	0.04	0.41	0.55	0.37	0.42

Assumption: When OECD growth rate is assumed to be four per cent per annum from 1980 to 1986.

Table 4.4Influence of international interest rates on Mexico's balance of payments, 1982-86(billion dollars)

	1982	1983	1984	1985	1986
EXPORTS	20.91	18.85	19.14	19.41	12.68
Oil	16.24	14.22	13.70	13.40	5.88
Non-oil	4.67	4.63	5.44	6.01	6.80
Services	4.33	4.31	5.06	5.60	6.32
IMPORTS	15.00	7.28	10.12	10.28	10.11
Services	4.44	2.15	2.99	3.04	2.99
INTEREST PAYMENTS	6.26	5.15	5.51	4.63	3.76
TRANSFERS	-1.75	-0.319	0.953	2.784	0.165
CURRENT ACCOUNT	-2.21	-8.26	6.53	9.84	2.3
INTERNATIONAL INVESTMENT	2.57	-0.168	-0.37	-0.50	0.70
CHANGE IN RESERVES	3.55	-2.02	-2.13	2.76	0.17
NET LOANS	3.19	-10.11	-8.29	-6.58	-2.83
AMORTIZATION	4.53	4.78	6.53	6.89	7.08
RESERVES	0.83	33.91	7.27	4.90	5.67
TOTAL DEBT	81.48	75.78	83.51	85.95	91.00
DEBT SERVICE RATIO	0.427	0.429	0.497	0.461	0.753
NET DEBT TO EXPORTS RATIO	3.19	3.10	3.15	3.24	4.49
CURRENT ACCOUNT/EXPORTS	-0.09	0.36	0.27	0.39	0.12
RESERVES/IMPORTS	0.04	0.41	0.55	0.37	0.43

Table 4.5

INFLUENCE OF DOMESTIC REAL EXCHANGE RATE ON MEXICO'S BALANCE OF PAYMENTS, 1982-86
(Billion Dollars)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
EXPORTS	21.00	18.98	19.20	19.49	13.73
Oil	16.24	14.22	13.70	13.40	5.88
Non-oil	4.76	4.76	5.505	6.09	7.85
Services	4.33	4.33	5.01	5.54	7.14
IMPORTS	14.61	6.62	9.77	10.21	9.08
Services	4.44	2.01	2.97	3.10	2.76
INTEREST PAYMENTS	10.96	9.45	11.02	9.26	6.57
TRANSFERS	- 1.75	- 0.319	0.953	2.784	0.165
CURRENT ACCOUNT	- 6.43	4.91	1.4	5.24	2.625
INTERNATIONAL INVESTMENT	2.57	- 0.168	- 0.37	- 0.5	0.7
CHANGE IN RESERVES	3.55	- 2.02	- 2.13	0.76	0.17
NET LOANS	7.41	- 6.76	- 3.16	- 1.98	- 3.15
AMORTIZATION	4.53	4.78	6.53	6.89	7.08
RESERVES	0.83	3.91	7.27	4.90	5.67
TOTAL DEBT	85.7	78.53	88.64	90.57	90.76
DEBT SERVICE RATIO	0.611	0.610	0.725	0.645	0.654
NET DEBT TO EXPORTS RATIO	3.35	3.20	3.36	3.42	4.08
CURRENT ACCOUNT/EXPORTS	- 0.25	0.21	0.06	0.20	0.125
RESERVES/IMPORTS	0.06	0.6	0.74	0.47	0.62

Assumption: The real exchange rate is devalued by 5% in 1982, 10% in 1983, 15% in 1984, 20% in 1985 and 25% in 1986.

Table 4.6

INFLUENCE OF DOMESTIC REAL EXCHANGE RATES ON MEXICO'S BALANCE OF PAYMENTS, 1982-86
(Billion Dollars)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
EXPORTS	21.0	18.98	20.31	20.10	13.29
Oil	16.24	14.22	13.70	13.40	5.88
Non-oil	4.76	4.76	6.69	6.70	7.41
Services	4.33	4.33	6.09	6.10	6.74
IMPORTS	14.60	6.62	9.09	9.12	8.54
Services	4.44	2.01	2.76	2.77	2.60
INTEREST PAYMENTS	10.96	9.45	11.02	9.26	6.57
TRANSFERS	- 1.75	- 0.319	0.953	2.784	0.165
CURRENT ACCOUNT	- 6.42	4.91	4.56	7.83	2.48
INTERNATIONAL INVESTMENT	2.57	- 0.168	- 0.37	- 0.5	0.7
CHANGE IN RESERVES	3.55	- 2.02	- 2.13	2.76	0.17
NET LOANS	7.4	- 6.76	- 6.32	- 4.57	- 3.01
AMORTIZATION	4.53	4.78	6.53	6.89	7.08
RESERVES	0.83	3.91	7.27	4.90	5.67
TOTAL DEBT	85.69	79.13	85.48	87.98	90.90
DEBT SERVICE RATIO	0.611	0.610	0.663	0.616	0.681
NET DEBT TO EXPORTS RATIO	3.35	3.23	2.95	3.17	4.25
CURRENT ACCOUNT/EXPORTS	- 0.25	0.21	0.17	0.3	0.12
RESERVES/IMPORTS	0.04	0.45	0.61	0.41	0.51

Assumption : The base year real exchange rate is initially devalued by 5 per cent and then by 10, 15, 20 and 25 per cent successively during 1983-86.

Table 4.7

Assumptions compared to actual movements of the Real exchange(1982-86), percentage change over previous year)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Actual devaluation of the Real Exchange rate (^a refers to a revaluation)	47.07	7	13.5 ^a	3.4 ^a	24
Assumptions of devaluation in Table 4.5	5	10	15	20	25
Net effect	55	17.56	0.75 ^a	15.92	55.14
Assumptions of devaluation in Table 4.6 (^b refers to lease case)	5 ^b	10	15	20	25
Net effect	55 ^b	10	15	20	25

Table 4.8

ACTUAL DEBT INDICATORS COMPARED TO ESTIMATED^a (1973-86)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL DEBT (BILLION DOLLARS)	3.99	11.45	15.61	20.52	30.68	35.43	42.69	57.45	78.30	85.89	91.80	92.55	93.91	96.99
TOTAL DEBT ESTIMATED										80.52	75.20	81.46	83.68	88.22
TOTAL DEBT (BASE CASE)										86.18	80.08	89.02	90.6	93.89
NET DEBT TO EXPORTS (RATIO)	1.74	1.83	2.36	2.88	3.79	3.20	2.74	2.37	2.62	3.32	3.30	2.89	3.30	4.31
NET DEBT TO EXPORTS (ESTIMATED)										3.09	3.15	2.97	3.04	4.15
NET DEBT TO EXPORTS (BASE CASE)										3.38	3.28	3.38	3.43	4.64
DEBT SERVICE RATIO	0.416	0.363	0.433	0.501	0.657	0.717	0.824	0.369	0.477	0.612	0.526	0.566	0.608	0.582
DEBT SERVICE RATIO (ESTIMATED)										0.408	0.434	0.464	0.402	0.540
DEBT SERVICE RATIO (BASE CASE)										0.614	0.614	0.725	0.646	0.718

- ^a Assumptions for estimations
- 1) OECD growth rate is 4 percent per annum throughout 1980-86.
 - 2) Interest rates equal 2% plus US inflation.
 - 3) Real exchange rate prevailing in 1982 is devalued initially by 5% in 1982 and then successively devalued by 10% in 1983, 15% in 1984, 20% in 1985 and 25% in 1986. (Table 4.6).
 - 4) Other parameters and elasticities used remains the same as the base case.

^b Net debt refers to total debt minus reserves.

Sources of data : World Bank, World Debt Tables - 1988-89 and IMF, International Financial Statistics Yearbook 1988, Table 4.1.

CONCLUSION

The ten year period from 1973 to 1983 proved to be a period of considerable stress for the non-oil developing countries. Throughout the 1970s, a combination of events caused the international economic environment to become less conducive to their stability and growth, and to aggravate balance of payments problems in particular. But many oil exporting countries also faced severe economic problems. In the case of Mexico, the sharp rise in real interest rates in the early 1980s, the slowdown of economic activity in the industrial countries in 1981-82 and the decline in terms of trade, especially the fall in oil price, all comprised the external shocks contributing to the balance of payments problems. Debt management also exacerbated the balance of payments problems. The increasing proportion of debt owed to commercial banks at flexible exchange rates and the shortening of maturities made Mexico more susceptible to debt servicing problems.

It is ironic and instructive that Mexico, an oil exporter, was the first and highly publicized country with a "debt crisis". Mexico received a positive external shock with the rise in oil prices in 1979-80. Although worldwide conditions affected all countries, it was their policy history in the 1970s that determined the extent and nature of their payments difficulties. In Mexico's case, highly expansionary macro-economic policy had been financed through capital inflows that were based on the expectation of continuously rising oil exports.

Fiscal deficits were a principal cause of the debt crisis - both directly as they meant greater public borrowing and indirectly because they encouraged the private sector to send its capital overseas due to the expectation that unsustainable fiscal deficits would eventually lead to increased inflation and currency devaluation, lowering the return on domestic financial assets.

The phenomenon of large outflows of domestic capital along with simultaneously increasing external indebtedness makes the issue of capital flight crucial to explaining Mexico's balance of payments problems. Capital flight was caused by overvalued exchange rates and the consequent expectation of devaluation which induced Mexican residents to avoid potential capital loss by converting domestic wealth into foreign claims. Artificially low domestic interest rates also encouraged capital flight.

The period from 1970 to 1982 was marked by increasing public expenditure and inflation. The increasing current account deficits were financed by rising external debt. The oil boom from 1978 to 1981 increased Mexico's credit worthiness in the international financial markets and induced the Mexican government to finance increased public sector deficits through the accumulation of external debt on the expectation of continuously rising oil revenues. Increased investment in the oil sector was also financed by additional external borrowing. Non-oil trade deteriorated and oil became the major export commodity. It was against this background of increased external indebtedness and dependence on oil that international events played their destabilising role.

This rise of the oil price in 1979-80 had a favourable short term effect. The oil export income doubled and for the same reason, the rise in international interest rates was accompanied by an almost unlimited availability of foreign loans. However in 1981, oil prices started falling and foreign interest rates reached a peak of 19 percent in 1981. With the recession in USA, terms of trade also deteriorated. The reinforcement of fiscal expansion, the appreciation of the real exchange rate and capital flight of the magnitude of \$ 20 billion during 1981-82 worsened the payments problems. In August 1982, when the official reserves were almost completely exhausted, Mexico requested a three month moratorium on payment of principal. This event marked the beginning of Mexico's debt crisis.

The payments difficulties experienced by Mexico in 1982 culminated in a three year adjustment program. The 1983 economic adjustment under the IMF Extended Fund Arrangement was outstanding when compared to other Latin American countries. The \$ 6.2 billion current account deficit in 1982 was converted to a surplus of \$ 5.5 billion in 1983. The decline in imports was the major factor in external adjustment. However, this had a negative impact on economic growth and led to "overkill"- in 1983 GDP fell by 5.3 per cent instead of the expected 0 per cent. The conflict of the balance of payments equilibrium with the growth objective came into sharp focus.

Overborrowing is however impossible without overlending. The commercial banks' continued lending to Mexico despite the loss of confidence in the government's policies on the part of the residents, demonstrated by capital flight. The bank decision-making processes were

influenced by the absence of adequate banking regulation, inadequate information and analysis and reliance on government guarantees. Capital inadequacy made the banks more vulnerable to their developing country exposures and affected the soundness of the banking system.

The discovery of oil reserves made Mexico one of the favourite customers of the commercial banks. The banking community believed that the oil prices would continue their upward trend and that they could diversify their risks by lending simultaneously to oil exporting Mexico and oil importing Brazil. This belief itself was the result of inadequate information and analysis.

In response to the debt crisis, U.S. Banks have virtually stopped extending new loans to the problem debtor countries. New lending has remained confined to specific bailout packages. The pattern of concerted lending packages among debtor governments has illustrated the fact that it is the countries with large loans that have been able to bargain for new lending from banks. In 1988, as in recent years, commercial banks remained reluctant to provide new funds to debtors. Out of the six debt restructuring agreements between January and September 1988, only one for Brazil had a significant new money component.

The role of International Monetary Fund in the financing and adjustment in developing countries has assumed a new importance since the outbreak of the debt crisis. The Fund resources were clearly inadequate in relation to the magnitude of the current account deficits experienced in the 1970s. Even the meagre resources came with high conditionality. This induced Mexico to prefer commercial inflows to finance its deficits.

However, while the IMF provided temporary balance of payments support, the current account deficits experienced by Mexico were of longer duration.

Since 1982, however, the IMF has come into sharp focus as an organiser of debt relief. The key to its involvement in debt negotiations has been its ability to oversee domestic stabilization programmes. Since Fund loans are conditioned on approved programs, borrowers submit to such programs reluctantly and do so only to get additional funds from private banks and official credit. Thus, the IMF performs a catalytic function by providing its 'seal of approval'.

The underlying rationale of the Fund's approach has been that after a sufficiently vigorous short term adjustment policy the typically heavily indebted country would once again become credit worthy and further adjustment would become inessential. However the Mexican experience since 1982 has been contrary to this. The 1983-85 adjustment program was clearly a case of overkill as explained earlier, with adverse consequences for economic growth. In 1986, the current account again showed a deficit due to the halving of the oil price and a loss in export revenue equivalent to 6 per cent of GDP. The economic adjustment program of July 1986 included a further dose of austerity. The volume of non-oil exports nearly doubled in 1987 due to peso devaluation. However, the depreciating peso pushed up inflation to 160 per cent by December, 1987.

Despite several years of supposed fiscal austerity, the total PSBR was 17 per cent of GDP in 1987, no smaller than in 1982. In 1988, real GDP per head was 16 per cent lower than before the outbreak of the debt crisis, while investment key to future growth has fallen from 23 per cent

of GDP in the 1970s to only 16 per cent. Although Mexico has been a model debtor and has followed most of the prescriptions of the IMF and the commercial banks had made good progress in balancing its books, it has not got rid of its problems. Its dependence upon IMF support continues. Mexico has recently applied for SDR \$ 2.8 billion (\$ 3.6 billion) in financial assistance in support of their economic adjustment program for 1989-92 under the Extended Fund Facility. The programme also envisages a reduction in debt and debt service payments to commercial creditors and a sharp cut in net external resource transfers abroad. The Mexican negotiations with the IMF will crystallize many of the ideas of the Brady Plan announced on March 10, 1989 by the U.S. Treasury Secretary Nicholas Brady. The Brady Plan differs from the earlier Baker Plan (1981) in its emphasis on voluntary debt reduction by commercial banks along with additional finance for major debtors. For the first time, the IMF has been empowered to lend even if it funds that banks are blocking agreement with a debtor country because of its arrears. However, this might involve the problem of moral hazard.

The central objective of this study was to analyse the external and internal causes of Mexico's balance of payment problems and to assess the relative contribution of each of the causes discussed. To understand the nature of Mexico's external payments problems, Mexico's actual balance of payments performance was compared to the expected balance of payments performance during 1982-86. The base case balance of payments of Mexico had been a non-problem country was estimated by substituting actual average parameters in the balance of payments equations specified. The comparison of the actual performance with the results obtained show that the actual

performance was much better than the estimated during 1983-1984. This confirms the hypothesis that Mexico's adjustment after 1982 has been more than required. However, the reversal to a current account deficit in 1986 meant that Mexico's debt crisis was not yet over. To assess the relative importance of internal and external factors, a sensitivity analysis with respect to industrial country growth rates, interest rates and real exchange rates was undertaken. The results showed that there was a positive correlation between higher and stable industrial countries' growth rates and better balance of payments performance for Mexico. Lower interest rates improved the current account and lowered the debt service burdens most significantly. With reference to the exchange rates, a devaluation improved the export performance and reduced imports, thus having a positive effect on the current account balance. However, it was the debt management and domestic macro-economic policy which was crucial in the case of Mexico. The overexpansionary economic policy resulted in the overvaluation of the exchange rate which caused massive capital flight. Capital flight was one of the major causes of Mexico's debt crisis. During the period of the oil boom it was external borrowing which financed the overexpansionary economic policy. Maybe Mexico could have avoided the debt crisis by pursuing a more balanced domestic macro-economic and debt management policy and timely adjustment to the debt crisis. A more meaningful analysis of this hypothesis could be developed by comparing Mexico to South Korea where despite large international borrowing from commercial sources and the adverse oil shock, external payments problems did not arise.

BIBLIOGRAPHY

PRIMARY SOURCES

Group of Thirty, Balance of Payments Problems of Developing Countries (New York: 1981).

"The Debt Crisis and the World Economy," Report by Commonwealth Group of experts (London : Commonwealth Secretariat, 1984).

"The World Debt", Report prepared for the United Nations Centre for Transnational Corporations, by Dornbusch, Rudiger and Fischer, Stanley, 1984.

SOURCES OF STATISTICAL DATA

International Monetary Fund, Balance of Payments Statistics, Yearbook (Washington, DC : IMF, various issues).

International Monetary Fund, International Financial Statistics Yearbook (Washington, D.C. :IMF, various issues).

International Monetary Fund, IMF Survey (Washington DC : IMF, various issues).

International Monetary Fund, World Economic Outlook (Washington D.C : IMF, various issues).

Morgan Guaranty Trust Co, World Financial Markets, (various issues).

OECD, External Indebtedness of Developing Countries: A Survey (OECD, Paris, 1984).

UNCTAD, Handbook of International Trade and Development Statistics (various issues).

UN, Yearbook of International Trade Statistics. (various issues).

UN, Statistical Yearbook for Latin Amreica (Economic Commission for Latin America, various issues).

Wilkie, J.W., and others ed. Statistical Abstract of Latin America (Los Angeles: UCLA, 1988), vol.26.

World Bank, World Debt Tables (Washington DC: World Bank, various issues).

World Bank, World Development Report (Washington, DC :World Bank, various issues).

SECONDARY SOURCES

BOOKS

1. Bird, Graham, Managing Global Money : Essays in International Financial Economics (HongKong: MacMillan, 1988).
2. Carvounis, Chris C., The Debt Dilemma of Developing Nations : Issues and Cases (London : Aldywch Perss, 1984).
3. Claudon, Michael, ed., World Debt Crisis: International Lending on Trial (Cambridge, Mass. Ballinger, 1986).
4. Cline W.R., and Weintraub, Sidney, ed., Economic stabilisation in Developing Countries (Washington, DC : The Brookings Institution, 1981).
5. Cline, William R., International Debt and Stability of the World Economy (Cambridge, Mass: MIT Press, 1983).
6. Cline, William R., International Debt: Systemic Risk and Policy Response (Washington DC :Institute of International Economics, 1984).
7. Cohen, Benjamin J., and Basagini, Fabio, Bank and the Balance of Payments : Private Lending in the International Adjustment Process (Montclair, N.J.: Osmun, 1984).
8. Esperanza, Duran ed., Latin America and the World Recession : (London : CUP and RIIA, 1985).
9. Fair, D.E., and Bertrand R., ed., International Lending in a fragile world economy (The Hague : Martinus Nijhoff, 1983).
10. Feinberg, Richard E., and Valeriana, Kallab, ed., Adjustment crisis in the Third World (New Brunswick : Transaction Books, 1984).

11. Feinberg, Richard E., and Valeriana, Kallab ed.,
Uncertain Future : Commercial Banks and the Third
World (New Brunswick : Transaction Books, 1984).
12. Friedman, Irving Sigmund, The World Debt Dilemma :
Managing Country Risk (Washington : CIBS and RM
Associates, 1985).
13. Griffith-Jones, Stephany and Sunkel Oswaldo,
Debt and Development Crisis in Latin America : The
End of an Illusion (Oxford : Calendron, 1986).
14. Guttentag, Jack^k E.M., and Herring, Richard J., The
Current Crisis in Lending (Washington, DC : Brookings
Institution, 1985).
15. Hallwood, Paul, and MacDonald, Ronald, International
Money : Theory, Evidence and Institutions (Oxford :
Basil Blackwell, 1986).
16. Holley, H.A., Developing country Debt : The Role of
Commercial Banks (London : Macmillan, 1987).
17. Jorge, Salazar, Carillo and Diaz-Pou, ed., External
Debt and Development Strategy in Latin America.
18. Kahler, Miles, ed., Politics of International Debt
(Ithaca : Cornell Univ. Press, 1986).
19. Killick, Tony, ed., The Quest for Economic Stabilisation:
The IMF and the Third World (London : 1984).
20. Kim, Seung, H, and Miller, Stephen W., Competitive
Structure of International Banking Industry (Massa-
chusetts : Lexington, 1983).
21. Kojm, Christopher A., ed., The Problem of International
Debt (New York: H.W. Wilson Co., 1984) Vo.56, no.1.
22. Lipson, Charles, "The IMF, Commercial Banks, and
Third World Debt" in Aronson Johathan ed., Debt in
the Less Developed Countries (Boulder, Colorado :
Westview, 1979).
23. Macesich, George, World Banking and Finance : Coopera-
tion vs Conflict (New York : Praeger, 1984).
24. Makin, J.L., The Global Debt Crisis : America's growing
involvement (New York : Basic, 1984).

25. Nunnenkamp, Peter, The International Debt crisis of the Third World : Causes and Consequences for the World Economy (Wheatsheaf Books, 1986).
26. Seiber, Marilyn J., International Borrowing by Developing Countries, (Pergamon, 1982).
27. Smith, Gordon W., "The External Debt Prospects of the Non-Oil-Exporting Countries", in Cline, William R.ed., Policy Alternatives for a New International Economic Order (New York : Praeger for ODC, 1979).
28. Smith, Gordon, W., and Cuddington, John T., ed., International Debt and Developing Countries, (Washington DC, World Bank, 1985).
29. Thorpe, Rosemary, and Whitehead, Lawrence, ed., Latin American Debt and the Adjustment Crisis, (Oxford : Macmillan in association with St.Antony's College, 1986).
30. Tsoukalis, Loukas, ed., The Political economy of International Money : In search of a New Order (London : 1985).
31. Williamson, John, "The Lending Policies of International Monetary Fund" in Policy Analyses in International Economics (Washington: Institute for International Economics, 1982).
32. Wionczek, M.S., and Tomassini L., ed., Politics and External Debt Crisis : The Latin American Experience (Boulder, Colorado : West view, 1985).

ARTICLES IN PERIODICALS

1. Aliber, Robert Z., "Debt cycle in Latin America", Journal of Inter American Studies and World Affairs, Vol.27, no.4, Winter 1985-86, pp117-24.
2. Aliber, Robert Z., "A Conceptual Approach to the analysis of External Debt of developing countries", World Bank Staff Working Paper (Washington D.C.), no.421, 1980.
3. Amuzegar, "Dealing with Debt", Foreign Policy, Fall 1987, no.68, pp.140-158.

4. Azizali, Mohammed F., "The case by case approach to debt problems - The Funds recent role in debt management," Finance & Development, March 1985, pp.27-30.
5. Belassa, Bela, "Policy Responses to External Shocks in selected Latin American countries", The Quarterly Review of Economics and Business, 1981, pp.131-164.
6. Balassa, Bela, "Structural Adjustment Policy in Developing Economies", World Development Vol.10, no.1 1982, pp.23-38.
7. Bergsten, Fred C., and Klein, Lawrence R., "Assuring World Recovery: The Need for a Global Strategy", The Economist, 23 April, 1983.
8. Beveridge W.A., and Kelley M.R., "Fiscal content of Financial Programs supported by standby arrangements in the Upper credit Tranches, 1969-78", IMF Staff papers (Washington DC) June 1980.
9. Blackwell, Carl P., "Monetary approach to Balance of payments needs, blending with other lines of analysis", IMF Survey (Washington, DC), 20 February and 6 March 1978.
10. Bolin, William H. and Jorge, Del Canto, "LDC Debt : Beyond crisis Management" Foreign Affairs , vol.61, no.5 Summer 1983.
11. Brittan, Samuel, "A very painful world adjustment" Foreign Affairs, Spring 1988, pp. 541-68.
12. Brock, W.E., "Trade and Debt : The vital linkage", Foreign Affairs , Vol.62, Summer 1984, pp.1037-57.
13. Camdessus, Michael, interviewed "The IMF: Facing new challenges", Finance and Development, June 1988, pp.2-5.
14. Carlos, Diaz-Alejandro, F., "Some Aspects of the 1982-83 Brazilian Payments Crisis", Brookings papers on Economic Activity, no.2, 1983.
15. Carlos, Diaz-Alejandro F., "International Markets in the 1980's, Journal of International Affairs , Summer 1984.
16. Carlos, Diaz-Alejandro F., "Latin American Debt: I donot think we are in Kansas anymore", Brookings papers on Economic Activity, no.2, 1984, 335-405.

17. Castaneda, " Mexico's coming challenges", Foreign Policy, Fall 1986, no.64, pp.120-39.
18. Cline, William R., "External Debt : System vulnerability and Development", Columbia Journal of World Business (New York), Spring 1982, Vol.17, No.1, pp.4-14.
19. Cline, W.R., "Mexico's Crisis, The world's peril", Foreign Policy, no.49, Winter 1982-83, pp.107-118.
20. Cline, W.R., "International Debt - From Crisis to Recovery", AEA Papers and Proceedings, Vol.75, no.2, May 1985, pp.185-190.
21. Cline, William, R, "International Debt, Progress and Strategy", Finance and Development, June 1988, pp.9-11.
22. Cline, W.R., "Debt, Macro policy and state intervention: The next phase for Latin America", Journal of Inter - American Studies and World Affairs, pp.155-173.
23. Dale, W.B., "The IMF's role in a changing world", Finance Development, Vol.21, March 1984, pp.2-4.
24. Debt Brief 'Latin America's new currency' The Economist vol. 309, no.7576, 29 October 1988, pp.79-80.
25. de Larosiere, J., "Finance and Development : Progress on the International Debt Strategy" Finance and Development March 1987, pp.10-11.
26. de Vries, Maragaret G., "The Evolution of the IMF and how it relates to the developing countries," International Development Review (Washington, D.C.) Vol.19, no.2, 1977, pp.12-18.
27. de Vries, Barend A., "Restructuring of debtor Economies. Longterm finance", Journal of International Affairs, Summer 1984.
28. Dietz, James L., "Latin American Economies and debt : Institutional and Structural Response to crisis", Journal of Economic Issues, vol.21, no.2, June 1987, pp.827-36.
29. Donovan, Donald J., "Macro-economic Performance and adjustment under Fund-supported Programs : the Experiment of the Seventies", IMF Staff Papers, vol.29, no.2, June 1982.
30. Donovan, Donald J., "Nature and origin of Debt-serving difficulties, some empirical evidence", Finance and development, vol.21, no.4, 1984, pp.22-25.

31. Dodey, Michael P., "Market valuation of External Debt : How the behaviour of creditor, and borrowing authorities affects the flows of new credits and investments in heavily indebted countries", Finance and Development, March 1987, pp. 6-9.
32. Dornbusch, Rudiger, "On the consequences of muddling through the debt crisis", The World Economy, June 1984, pp.133-144.
33. Dornbusch, Rudiger, "The Latin American Dimension", Challenge, July August 1984.
34. Errunza, V.R., and Ghalbouni, J.P., "Interest Rates and the International Debt crisis", Banca Nazionale del Lavarò Quarterly Review (Rome), no.157, June 1986, pp.225-45.
35. Feinberg, Richard E., " The Debt Crisis : Can the costs be cut?", Policy Focus (Washington, DC), no.5, September 1984, pp.1-8.
36. "Finance brief - How banks lend", The Economist, vol.310, no.7588, 4 February 1989, pp.80-81.
37. Fischer Stanley, "Sharing the Burden of the International Debt Crisis", Vol.77, no.2, May 1987, pp.165-170, AER
38. Foxley, Alejandro, Latin American development after the debt crisis, Journal of Development Economics, 1987 pp.200-223.
39. Gilbrath, Kent, "A Businessman's Guide to the Mexican Economy", Columbia Journal of World Business, Summer 1986, pp.3-14.
40. Grayson, Philip, "Mexican Oil and Gas : The politics of a new resource", International Affairs (London), Summer 1980, pp.474-483.
41. Griffin Kieth, "Towards a Cooperative Settlement of the Debt Problem, Finance and Development, June 1988, pp.12-14.
42. Gulati, Sunil, "Capital Flight : Causes, consequences and cure", Journal of International Affairs, vol.42, no.7 Fall 1988.

43. Hardy, Chandra, "Mexico's Development Strategy for the 1980's", World Development, vol.10, no.6, 1982, pp.501-512.
44. Hope, Nicholas, and Klein, Thomas, "Issues in External debt Management", Finance and Development, September 1983, pp.23-25.
45. Heller, H.R., "The Debt crisis and the future of International bank lending", American Economic Review, vol.77, May 1987, pp.171-5.
46. Kaldor, Nicholas, "Devaluation and Adjustment in developing countries", Finance and Development, June 1983, pp.35-37.
47. Khan, Mohsin S., and Haque, Nadeem Ul, "Capital flight from developing countries", Finance and Development, March 1987, pp.2-5.
48. Khan, Mohsin S., and Knight, Malcolm D., "Stabilisation in Developing Countries : A formal framework", IMF Staff Papers (Washington DC) March 1981.
49. Khan, Mohsin S., and Knight, Malcolm, "Sources of Payments problems in L.D.C.'s", Finance and Development, December 1983, pp.2-5.
50. Krueger, Anne, O., "Origins of the Developing Countries' Debt Crisis", Journal of Development Economics, 1987, pp. 165-187.
51. Krueger, A.O., "Debt, capital flows and LDC growth", American Economic Review, Vol.77, May 1987, pp.159-64.
52. Kuczynski, Pedro Pablo, "Latin American debt : Act two", Foreign Affairs, Vol. 62, no.1, Fall 1983, pp.17-38.
53. Kuczynski, P.P., "The outlook for Latin American debt", Foreign Affairs, Vol. 66, Fall 1987, pp.129-49.
54. "Lender of Last Resort", The Economist (London), Vol.30 no.7536, 6 February, 1988, pp.70-71.
55. Leven, Ronald, and Roberts, David L., "Latin American Projects for Recovery", Federal Reserve Bank of New York Quarterly Review, Vol. 8, no.3, Autumn 1983, pp.6-13.
56. McComas, Maggie, "More Capital won't cure what ails Banks", Fortune (New York) Vol.1, 7 January, 1985.
57. "Mexico-Out of the Sun", The Economist, Vol.304, no.7414, 5 September 1987.

58. Ortiz, G. and Serra, Puche, J., "A note on the Burden of Mexican Foreign Debt", Journal of Development Economics April 1986, pp.111-29.
59. Pfefferman, Guy, "Overvalued exchange rates and development", Finance and Development, March 1985, pp.17-19.
60. Porzecanski, A.C., "The International Financial Role of US Commercial Banks : Past and Future", Journal of Banking and Finance, 1986, pp.5-16.
61. Purcell, "State and Society in Mexico", World Politics, January 1980, pp.194-227.
62. Ramirez, R. de la Vinter, "Policy and Political implications of Foreign Indebtedness in Mexico", Journal of Inter American Studies and World Affairs, (Miami), 1987-88, pp.147-155.
63. Ranis, Gustav, "Latin American debt and adjustment", Journal of Development Economics, 1987, pp.189-199.
64. Recent International Borrowing by developing countries. Finance and Development, March 1987, pp.11-12.
65. Reichmann, "The Fund's conditional Assistance and the Problems of Adjustment", Finance and Development (Washington DC), December 1978, pp.38-41.
66. Riely, Frank Z., "Third World Capital Flight : Who gains, who loses?", Policy Focus, no.5, September 1986, pp.1-8.
67. Sachs, J., "The Current Account and Macro-economic adjustment in the 1970's", Brookings Papers on Economic activity, no.1, 1981, pp.201-68.
68. Sachs, J., "Managing the LDC Debt Crisis", Brookings Papers on Economic Activity, 1986, pp.397-431.
69. Sachs, Jeffery D. "A new approach to managing the debt crisis", Columbia Journal of World Business, Fall 1986.
70. Sachs, Jeffery, "Recent studies in Latin American debt crisis", Latin American Research Review (New Mexico), Vol. XXIII, no.3, 1988, pp.170-179.
71. Sachs, Jeffery, and Huizinga, Harry, "US Commerical Banks and the Developing country Debt Crisis", Brookings Papers on Economic Activity, (Washington DC), February 1987.

72. Sawyer, W.C., and Sprinkle, R.L, "Contractionary effects of Devaluation in Mexico", Social Science Quarterly, December 1987, pp.885 - 93.
73. "Schools Brief : Tools of Economic Policy", The Economist, Vol. 35, no.7523, 7 November 1987, pp.85-86.
74. Sidney, Dell, "Stabilisation : The Political Economy of Overkill", World Development, Vol.10, no.8, 1982.
75. Sjaastad, Larry A., "International Debt Quagmire : To whom do we owe it?", The World Economy, Vol.6, 1983, pp.305-324.
76. Street, J.H. "Can Mexico Break the Vicious Circle of 'Stop-go' Policy? - An institutional overview", Journal of Economic Issues (Miami), Vol.XX, No.2, June 1986, pp.601-12.
77. Weaving, Rachel, "Measuring Developing Countries External Debt", Finance and Development, March 1987, pp.16-19.
78. Weisner, Eduardo, "Domestic and External causes of the Latin American debt crisis", Finance and Development, March 1985, pp.24-26.
79. Weisner, Eduardo, "Latin American Debt : Lessons and Pending Issues", AEA Papers and Proceedings, Vol.75, no.2, May 1985, pp.191-195.
80. Weinert, R.S., "Banks and Bankruptcy", Foreign Affairs, no.50, April 1983, pp.138-49.
81. Whither the Fund", The Economist, (London), vol.308, no.7569, 24 September 1988, p.77.
82. Williams, David, "Opportunities and constraints in International Lending", Finance and Development, March 1983.
83. Williams, David, "Opportunities and Constraints in International Lending", Finance and Development, March 1983, pp.24-27.
84. Zedillo, Ponce de Leon E., "Mexico's Recent Balance of Payments Experience and Prospects for Growth", World Development, Vol.14, no.8, March 1986, pp.963-991.

