



MEXICAN DEBT CRISES: A NEW APPROACH TO THEIR GENESIS AND RESOLUTION

A thesis submitted for the degree of

Doctor of Philosophy

at the

Department of Economics

University of Essex

by

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May 1999

ABSTRACT

This thesis consists of seven chapters on the topic of Mexican external indebtedness and debt crises. Chapter 1 studies the indebtedness process of a sovereign country that enjoys a creditworthiness status and therefore is able to borrow from the international capital markets, while Chapter 2 looks at a country that has lost that status and suffers from a debt crisis. Chapter 3 looks at the economic policy followed by the Mexican government in the 1973-94 period, in particular analysing how the access to, or exclusion of, the international capital markets shaped the policies adopted.

Chapter 4 looks at the external indebtedness from the supply side: studying the evolution and workings of the Eurocurrency markets, in particular with the aim of discovering not only why sovereign countries have been able to access them but, even more important, why and how over-borrowing from them has happened in the recent past. Chapter 5 analyses the demand side by focusing on a single country that is creditworthy: Mexico, studying thoroughly the evolving and features of the process. Chapter 6 focuses on the other Mexico, the country under debt crises that nobody will touch in the capital markets. The lessons derived from those debt crises provide to Mexico, other sovereign borrowers, potential lenders and industrialised governments are presented in Chapter 7.

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PREFACE AND ACKNOWLEDGEMENTS

External debt was, quite naturally, a hot topic for anybody that undertook studies in economics during the 1980s in Mexico -while economics, also quite understandably, was not a well-regarded profession. The whole of my B.A. studies at ITAM, 1983-87, took place under the shadow of debt.

However, my personal interest on the topic really took off when I started to work as an economic journalist at the end of 1988 on the newspaper *El Economista* which had been just founded. The fourth negotiation of the debt had barely started, along with a new government, and the assignment of covering all the information coming from the Ministry of Finance and Public Credit (and also from that from the Ministry of Planning and Budget) really meant covering the external debt negotiations. It was fortunate enough that the editor decided that it was worth it for the newspaper to send a reporter to Madrid, where in June 1989 some key negotiations took place. I owe to Luis Enrique Mercado that trip and the strong support that would follow it. It was even more fortunate that Pedro Aspe Armella, Mexico's Finance Minister, decided to give an off-the-record chat to those few Mexican journalists that were in Madrid. Aspe not only gave fascinating details of the negotiations but, as the Professor he once was (and is again now), a superb overview of the debt crisis. My enthusiasm for the theme really started then and there. It became the topic of my B.A. dissertation, my M.A. dissertation at the University of Essex (thanks to the sponsorship of the British Council), and of the paper I wrote at the University of Maryland (College Park) as part of the Seminar in the U.S. Foreign Policy Process (thanks to the financial assistance from the Ford Foundation). I am also grateful to Aspe for the occasion that he received me to talk about the debt issue. My special gratitude also to Javier Beristain Iturbide, president of ITAM for many years, for a support that was crucial to study both the M.A. and at Maryland.

To undertake Ph.D. studies was only possible thanks to the generosity of the Mexican government, i.e. the taxpayer. For five years the study of the Mexican debt and debt crises was financed by the Consejo Nacional de Ciencia y Tecnología (National Council for Sciences and Technology - Conacyt). Even after the December 1994 debt crisis abruptly erupted and a harsh adjustment had to be followed, Conacyt kept its support without the slightest reduction. My appreciation to Carlos Bazdresch, its General Director, whom I understand defended our scholarships when the pressure was enormous to reduce them (on the other hand, pressure that was understandable considering the financial meltdown Mexico was experiencing). While it can be argued that investment in human capital is a worthy one, the resources spent in keeping hundreds of Mexicans outside the country following graduate studies undoubtedly represents a heavy burden for an economy with millions below the poverty line. That sacrifice is gratefully acknowledged with the hope of one day, in my personal case, presenting positive net returns to the country that gave it so generously.

While my personal external debt is owed to Conacyt, the internal debt at Essex during the Ph.D. is owed to Alastair McAuley –and by now it is huge (and defaulting is not an option in this case). From day one he was not only a superb supervisor, but also somebody to count on in any other circumstance, as indeed he was to prove several times during these years. Not only I am grateful to Alastair for sharing his extraordinary knowledge of economics, but also the common sense that consistently pushed me to look for the woods, instead of merely looking at the trees. Had it not been for his support, the thesis would have never been finished. There are really not enough words to thank him.

My gratitude also to Professor Enrique Cárdenas Sánchez who, by a happy coincidence, is not only a foremost authority in the economic history of Mexico, but also my uncle. To him I owe not only extraordinary and fruitful exchanges on the issue of Mexican debt and recent economic history but also the suggestion of spending some months at the San Miguel Contla Hermitage –to try to speed up the writing of the thesis. Contla certainly proved an ideal location to write. My gratitude to the Franciscan monks and all the other members of the community that allowed me to live among them: the two Pedros, Chuy, Don Beto and, especially, Father Frank, who died a few months ago.

The gathering of data was quite a challenge, which would have been impossible to surmount without the generosity of Reyna Gutiérrez Solís, Subdirector of Debt Statistics, at the Secretaría de Hacienda y Crédito Público (Ministry of Finance). It was gratifying, as time went by, to be able to swap information with Reyna, an outstanding example of the superb professionalism that many Mexican public servants have. Eleuterio Pérez at the Documents Centre at the Finance Ministry was also extremely helpful in hunting down some data. I also owe very helpful information to Eduardo Turrent and Jaime Cortina at Banco de México. My gratitude also to Euromoney for the (free) access that I had to their database and to the personnel at the Bank of England library, who were always quite helpful. I was fortunate enough (using the cover of being an economics journalist) to talk with José Angel Gurría and Jesús Silva Herzog about their experiences as debt negotiators.

At Essex I was fortunate to share the Ph.D. travails with extraordinary colleagues. Helena Ernesto, Elena, Anoma, Joanne, Marco, Bruno, Job, Fernando, Rafael were always a source of advice, knowledge and friendship. Although far away, Edna and Armín were unique friends that always remained near, along with my brothers and sisters: Miguel Angel, José Juan, María Cristina and Raquel. Marcela has been for many years now an extraordinary friend. Special people shared with me their love these years. I will always treasure the support by Maria, Raquel, Blanca Lilia, Paola, Eugenia, and Ana, to whom I also owe the job at the Economist Intelligence Unit that allowed me to self-finance the final stages of the Ph.D. My special appreciation to my future compadre Rafael for his indescribable friendship, good humour and common sense, with Jovita never far away.

I would like to dedicate this thesis to my parents and my grandparents, in particular to my paternal grandmother Esperanza Mora and my maternal grandfather Gerardo Cárdenas (who, maybe with some foundation on the debt crises endured by Mexico, considered economists as a dangerous species) as both died while I was studying away from them.

MEXICAN PUBLIC BORROWERS - ABBREVIATIONS AND FUNCTIONS

CENTRAL GOVERNMENT

UMS United Mexican States, constitutional name of Mexico. Denomination under which the government borrows in the international capital markets.

OTHER PUBLIC SECTOR BORROWERS*

AHMSA	Altos Hornos de México (steel mill).
BANCOMEXT	Banco Nacional de Comercio Exterior (eximbank).
BANPESCA	Banco Nacional Pesquero y Portuario (development bank for fisheries).
BANRURAL or BANAGRO**	Banco Nacional de Crédito Rural (development bank for agriculture).
BANOBRAS	Banco Nacional de Obras y Servicios Públicos (development bank for public works and services).
BANXICO	Banco de México (central bank)
CAPFCE	Comité Administrador del Programa Federal de Construcción de Escuelas (Administrative committee for the federal programme for the construction of schools).
CAPUFE	Caminos y Puentes Federales de Ingreso (Public enterprise for the construction and administration of public roads and bridges).
CFE	Comisión Federal de Electricidad (Federal Electricity Commission).
CONASUPO	Compañía Nacional de Subsistencias Populares (national company for the production, purchasing, and distribution of basic staples).
DINA	Diesel Nacional (factory of buses and trucks).
FERTIMEX	Fertilizantes Mexicanos (producer of fertilisers).
FINASA	Financiera Nacional Azucarera (development bank for sugar production).
NAFIN or NAFINSA**	Nacional Financiera (main development bank and also the financial agent of the central government).
PEMEX	Petróleos Mexicanos (national petroleum company).
PIPSA	Productora e Importadora de Papel, S.A. (paper producer).
SOMEX	Sociedad Mexicana de Crédito Industrial (development bank for industry).
SICARTSA	Siderúrgica Lázaro Cárdenas Las Truchas (steel mill).
TELMEX	Teléfonos de México (national telephone company).

* The Mexican government has hundreds of agencies, public enterprises and funds (a maximum of 1155 in 1982, reduced to 204 by 1995), but few accessed the international capital markets. In alphabetical order, the most important borrowers in the 1973-97 period. Several (such as the steel mills, FERTIMEX, DINA, TELMEX, CONASUPO and PIPSA) were privatised in the late 1980s or in the 1990s. For comprehensive statistics of the individual inroads that each made in the capital markets see Appendix B.

** Previous name to that actual in 1997.

COMMERCIAL BANK ABBREVIATIONS*

ABC	Arab Banking Corporation
ABN	Algemene Bank Nederland
ADIB	Abu Dhabi International Bank
AMRO	Amsterdam-Rotterdam Bank
ARBIFT	Arab Bank for Investment and Foreign Trade
ARLABANK	Arab Latin American Bank
BANAMEX	Banco Nacional de México
BANCOMER	Banco de Comercio.
B.A.I.I.	Banque Arabe et Internationale d'Investissement
BEAL	Banque Européenne pour l'Amerique Latine
BEC	Banque Européene de Crédit
BfG	Bank für Gemeinwirtschaft
BBL	Banque Bruxelles Lambert
BNL	Banca Nazionale del Lavoro
BNP	Banque Nationale de Paris
CCF	Crédit Commerciale de France
CIBC	Canadian Imperial Bank of Commerce
CSFB	Crédit Suisse First Boston
DG Bank	Deutsche Genossenschaftsbank
EULABANK	Euro-Latinamerican Bank
IBJ	Industrial Bank of Japan
INDOSUEZ	Banque de l'Indochine et de Suez
INTERMEX	International Mexican Bank Ltd.
KFTCIC	Kuwait Foreign Trading Contracting and Investment Co.
LTCB	Long-Term Credit Bank of Japan
NatWest	National Westminster Bank
NMB	Nederlandsche Middenstandsbank
PARIBAS	Banque de Paris et des Pays-Bas
SBC	Swiss Bank Corporation

* Widely-used bank abbreviations, that particularly in consideration of space are used in several tables included in Chapters 4 and 5, and Appendix B.

UBAF	Union de Banques Arabes et Francaises
UBS	Union Bank of Switzerland
WestLB	Westdeutsche Landesbank Girozentrale

CURRENCY ABBREVIATIONS*

BD	Bahraini Dinars
C\$	Canadian Dollars.
DM	German Deutschmarks
ECU**	European Currency Unit
EUA***	European Unit of Account
FFr	French Francs
KD	Kuwaiti Dinars
LIT	Italian Liras
NLG	Dutch (Netherlands) Guilders
PTA	Spanish Pesetas
\$	United States Dollars
SCH	Austrian Schillings
SDR****	Special Drawing Right (IMF)
SR	Saudi Rials
STG (£)	United Kingdom Pounds
SWF	Swiss Francs
YEN (¥)	Japanese Yens

* Currencies in which Mexican public borrowers obtained credits in the international capital markets, included in Appendix B and Chapter 5.

** Composed of weighted averages of the currencies of EC members, introduced in 1979, with a value equal to the European Unit of Account. From the first day of 1998 it became the Euro.

*** Unit of account used within the EC for communitary purposes. Initially linked to gold, was equal to one U.S. dollar prior to the devaluation of the dollar in 1971.

**** Composed of weighted averages of the U.S. dollar, German deutschmark, French franc, Japanese Yen and the United Kingdom pound. Established in 1969, its value was equivalent to one dollar until 1973.

OTHER ABBREVIATIONS AND TERMS

ASEMEX	Spanish acronym for Mexican Insurance, a SOE.
AUSEE	Spanish acronym for the Unity Agreement to Overcome the Economic Emergency, economic stabilisation programme implemented in January 1995 (Mexico).
BIS	Bank for International Settlements
CCC	Commodity Credit Corporation (U.S.)
CPI	Consumer Price Index
CETES	Spanish acronym for Treasury Certificates: T-Bills denominated and redeemable in local currency (Mexico).
COMECON	Council for Mutual Economic Assistance
CNC	Spanish acronym for the National Confederation of Peasants (Mexico).
CTM	Spanish acronym for the Confederation of Mexican Workers, the most important union in the country.
DOH	Debt Overhang Hypothesis
DRLC	Debt-Relief Laffer Curve
DSSB	Dissemination Standards Bulletin Board (IMF)
EC	European Community
ECGD	Export Credits Guarantee Department (U.K.)
ECSC	European Coal and Steel Community
EIB	European Investment Bank
ESF	Exchange Stabilisation Fund (U.S.)
EXIMBANK	Export-Import Bank (several countries)
EZLN	Spanish acronym for Zapatista Army for National Liberation (Mexico).
FCRP	Foreign Credit Restraint Program (U.S.)
FDI	Foreign Direct Investment
FDIC	Federal Deposit Insurance Corporation (U.S.)
FRN	Floating-Rate Note
GAB	General Arrangements to Borrow (IMF)
GATT	General Agreement on Tariffs and Trade
GDDS	General Data Dissemination System (IMF)
HIC	Highly-Indebted Country
HIPC	Highly-Indebted Poor Country
IADB	Inter-American Development Bank

IBRD	International Bank for Reconstruction and Development (World Bank)
ICRAS	Interagency Country Risk Assessment System (U.S.)
ICONSA	Spanish acronym for Conasupo Industries, a SOE (Mexico).
IET	Interest-Equalisation Tax (U.S.)
IFI	International Financial Institution
ILOLR	International Lender of Last Resort
IMF	International Monetary Fund
IMSS	Spanish acronym for Mexican Institute of Social Security
JUMBO LOAN	Syndicated loan of over \$1.0 billion dollars.
LDC	Less-Developed Country
LIBB	London Interbank Bid Rate
LIBOR	London Interbank Offered Rate
LOLR	Lender of Last Resort
MAQUILA or MAQUILADORA	In-bond industries, generally located along the U.S.-Mexico border.
MEP	Mexican Economic Populism. General denomination that some analysts have given to the economic policy followed from 1970 (or 1972) to 1982. Most salient macroeconomic features: high inflation and fiscal deficits.
MEXDOLLAR	Deposits in the Mexican financial system denominated and payable in US dollars.
MICONSA	Spanish acronym for Mexican Industrialised Maize, a SOE.
MTN	Medium-Term Note
MYRA	Multi-Year Rescheduling Agreement
NAB	New Arrangements to Borrow (IMF)
NAFA	North American Framework Agreement
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OPEC	Organisation of Petroleum-Exporting Countries
PAGAFES	Spanish acronym for Treasury Promissory Notes: government securities denominated in dollars and redeemable in local currency according to the exchange rate in the controlled market (Mexico).
PARAUSEE	Spanish acronym for the Action Programme to Reinforce the Unity Agreement to Overcome the Economic Emergency, additional measures to strengthen the AUESEE, announced in March 1995 (Mexico).
PARIS CLUB	Group of industrialised countries that under that denomination negotiated their respective bilateral credits (particularly short-term ones for trade) with LDCs.

PBEC	Spanish acronym for the Pact for Welfare, Stability and Growth, ensuing stage of the PECE pacts (Mexico).
PECE	Spanish acronym for the Pact for Economic Stability and Growth and also for the Pact for Stability, Competitiveness, and Employment, both ensuing stages of the PSE (Mexico).
PIRE	Spanish acronym for the Immediate Programme for Economic Re-Ordering, announced in December 1982 (Mexico)
PRI	Spanish acronym for the Institutional Revolutionary Party, by far the dominant force in Mexican politics, and in power uninterruptedly since its foundation in 1929.
PSE	Spanish acronym for the Economic Solidarity Pact, heterodox stabilisation programme announced in December 1987. With different subsequent various denominations, such as PECE, it would continue its workings until December 1994 (Mexico)
SD	Stabilising Development. Official name of the economic strategy followed from 1954 to 1970. Most salient macroeconomic features: low inflation and a fixed exchange rate (Mexico)
SDDS	Special Data Dissemination Standard (IMF)
SEC	Securities and Exchange Commission (US)
SHCP	Spanish acronym for the Secretariat or Ministry of Finance and Public Credit (Mexico).
SOE	State-Owned Enterprise.
S&P's	Standard & Poor's.
SPR	Strategic Petroleum Reserve (U.S.)
TESOBONOS	Spanish acronym for Bonds of the Federation Treasury: government securities denominated in dollars and redeemable in local currency according to the exchange rate in the free market (Mexico).
TOMBSTONE	Popular denomination for the public advertisement of a loan. The information usually included is: borrower, amount lent, and (in order of importance) all the institutions that provided funds for the credit.
VAT	Value Added Tax.

INTRODUCTION

External debt has been a crucial theme in Mexico since 1982. For eight years (1982-90) the so-called external debt crisis was the foremost economic issue. During that period, practically no economic growth, inflation as never experienced previously, and plummeting living standards as a result were all collectively blamed on the external debt. It was not only an important issue within the country: when the government declared in August 1982 that the country was unable to fulfil its scheduled payments, almost immediately it acquired a global dimension. For the first -and very probably not the last- time many countries were plunged into the need to reschedule their debts.¹ Even today, a decade and a half later, several countries, the so-called Highly Indebted Poor Countries (HIPC), continue struggling with that burden, particularly in the sub-Saharan region of Africa. Among the many questions that were asked on the subject arguably the most repeated was (and is), can the external debt ever be paid? And, the evident corollary: if yes, how? Questions that represent many of the intricacies around the subject.

At first glance, a Ph.D. thesis dedicated to the topic may seem superfluous. The international debt crisis considerably increased the public and academic interest on the topic; the historical, theoretical and policy literature that centred on it was abundant.² Causes, consequences, and possible solutions to the problem were explored in countless academic and lay publications. Without any doubt, (external) debt became one of the most important issues, for some time *the* issue, surrounding developing economies. That attention again took off at the end of 1994 when (yet again) Mexico fell into another debt crisis and once more (although not so profoundly as in 1982) shook the international financial system –a commotion popularly dubbed as the “Tequila effect”.³ After Mexico, other countries (notably Thailand, Indonesia, South Korea, Russia and Brazil) have kept that interest well alive with their own debt problems. The recurrence of debt crises -albeit with different types of creditors-⁴ could lead an outsider to conclude that those that have lent to sovereigns have learned nothing from the past, and that the lenders of tomorrow will be no wiser. Research on the topic (unfortunately) is far from finished, and this thesis provides many elements that carry it forward.

If there is a country to study to delve into the puzzle of external debt crises that is undoubtedly Mexico, with its *three* crisis in less than 20 years. When this research was begun, at the end of 1993, it was considered that the objective was to study *one* crisis (the 1982-90 one) and its aftermath. Ironically with the benefit of hindsight, one of the considerations was that it was a good time to study the topic, under the assumption that the topic was closed (at least for several years to come). It was naturally unknown what the (near) future reserved on the matter. Among the many disagreements that still exist about its genesis, one of the few common points of accord on the 1994-95 is that it was completely unexpected. It is always difficult to study recent events. However, it is possible to close the thesis at the end of 1997, as by then the 1994-95 debt crisis had been clearly left behind (as it will become clear in Chapter 6). Therefore, all accounts, analysis, and statistics will stop in that year, with few exceptions when it is necessary to provide additional support to a certain arguments.

¹ That was also the case during the Great Depression, but countries had been pushed into moratoriums because of the collapse in international trade flows.

² The academic literature on the topic is incredibly extensive. A comprehensive survey is provided by Cline (1995).

³ For several weeks several countries it seemed that other countries would follow Mexico into a financial tailspin. Nations as distant from Mexico such as Singapore were affected, and even the U.S. dollar faced pressures in the international markets when the U.S. Treasury package to rescue Mexico from a financial meltdown was announced.

⁴ Such as Bondholders in the 19th Century and in the 1930's; commercial banks in the 1980's; investment funds in the 1990's. See for example Kindleberger (1989), Griffith Dawson, (1990), and Eichengreen and Lindert (1991).

Ironically enough, the 1994-95 crisis was not the only unexpected one that had to be added to the analysis. As the research progressed, there was the unanticipated unearthing of a previous debt crisis (1976-77, buried under the debris of the economic crisis that erupted in August 1976) that, further irony, was to present many parallels with the 1994-95 one. Although it would have been certainly preferable that Mexico had suffered only one crisis (and even more no crises at all), nevertheless the existence of three crises in such a short span of time had the advantage that they provided further material to study. What would have probably have been tentative hypotheses after examining only the 1982-90 crisis became much stronger supported ones when looking at the three of them. Mexico, moreover, has an additional feature that puts it apart from other countries: as it was the first to go down in 1982, there is no contagion effect involved in its outbreak.

The recent debt crises of Mexico, despite of all the attention bestowed on the second and third ones, had still many surprises to offer. Just looking with a magnifying glass at the relevant data was enough to establish many facts that called into question or even allowed to reject several of the general ideas or notions common in the debt literature and that are taken for granted when dealing with the issue. Facts that, arguably, did not emerge before because the relevant data had not been uncovered in the first place. Precisely, one of the contributions that this thesis has to offer is arguably the most comprehensive set of statistics on Mexican public external debt, with particular attention to that owed to private creditors (Appendix B).⁵ It was not only a matter of searching in different sources, but also to try to reconcile the data found; a constant problem was the lack of consistency of many statistics. Maybe the most outstanding case in point is the abyss between the statistics presented by Zedillo (1981, with the Bank of Mexico as source) and Gurría (1993, the Ministry of Finance) on the public external debt stock (that is, *the* most basic statistic on the topic). Both of them enjoyed the advantages of being insiders in their respective sources⁶ -and in several years the series they present are plainly irreconcilable (see Table B1). Whenever possible, the statistics presented in the thesis have been double or triple checked against other (Mexican and foreign) sources. Once the data was assembled, its analysis brought about many of the main contributions of the thesis. Even data that was readily available, for example that on the international capital markets, brought along surprises when carefully looked at, again calling into question several of the notions popular in many of the analyses of the international debt crisis.

Each one of the chapters of the thesis has contributions (historical, theoretical or with implications for domestic or international economic policymaking) to offer to the existing understanding on external debt management by a sovereign in general and Mexican debt and debt crises in particular.

Chapter 1 analyses the external indebtedness process by a sovereign borrower when it enjoys open access to credit markets, i.e. creditworthiness. Several of the reasons why a country may wish to acquire external debt in the first place are briefly detailed at the beginning of the chapter. A theoretical framework for the indebtedness process that will take place between a sovereign and its lenders in

⁵ The best examples of that coverage, with information previously unavailable, are Tables B14, B15 and B17.

⁶ Both long-serving government officials. After a long spell in the Bank of Mexico, Ernesto Zedillo jumped to the cabinet in the administration of President Salinas, whom he succeeded as President in December 1994; José Angel Gurría was for 12 years

international capital markets is then presented. The parts that constitute that framework are readily available in the debt literature. However, it is somewhat surprising that several of their most important implications have not been explored in full.

Precisely because those ramifications have not been analysed several inaccurate assumptions on the indebtedness process still persist, even after the 1980s international debt crisis and the spectacular crashes of several emerging economies during the 1990s (with debt playing a foremost role). One of those assumptions is that a country services its external debt with its own resources, for example with means obtained through fiscal revenues or exports. Possibly that assumption made any analysis of the debt crisis issue much simpler. The reality is certainly much more complicated: debt crisis or not (moreover when a sovereign is creditworthy), a country will (at least partially) service its external debt *with more debt*. Something that is common knowledge among sovereign borrowers and those willing to lend to them. Exactly the same that happens when dealing with internal debt: it is not only refinanced, but the same creditors do it many times.

Another assumption used as base for many analyses is that a country is a net debtor while in certain developing stages, and that (having reached a superior stage of development) it starts paying its debts, and eventually becomes a net creditor vis-à-vis the rest of the world. That is another presumption that does not resist the litmus test of reality. Most industrialised countries have external debts and, considering internal debt, two of them (the United States and Japan) are the biggest debtors in the world, greatly surpassing the debts owed by LDCs. Yet another assumption that challenges reality is that there is an “end of time” for debtor countries. That is, a moment where the country will have to settle its debts, because there is no further future. While countries may certainly face radical transformations, they have proven to be much more resilient than other economic agents.

One of the central merits of Chapter 1 is that it develops a simple theoretical framework that takes into consideration the aforementioned facts. Creditworthiness is, thus, not only dependent on factors such as the external accounts of the country (i.e., the trade or current account balance), but also on the resources that the debtor will be expected to borrow in the future –in order to (at least partially) service the debts contracted in the past and present. A sovereign borrower, moreover, is not expected to pay its debts at a certain point in time. A section in the chapter derives why a country attains the status of being considered creditworthy by potential lenders, and therefore is able to borrow from them

That a country is able to service its debt with more debt does not mean that a sovereign can absorb as many resources as it desires from the capital markets. Debt crises, precisely, point to the fact that something wrong has happened with the indebtedness process. There are boundaries to the process, which are analysed. The final section of the chapter studies if, knowingly, sovereign borrower and lenders are engaging in a Ponzi game, precisely because of the fact that many times creditors are being paid with money coming from other (or even the same) lenders.

While Chapter 1 analyses a creditworthy country, Chapter 2 turns to the case where a sovereign is facing a debt crisis. The first obvious step is to analyse what factors explain that loss in the

creditworthiness status –the prelude to any debt crisis- following the framework presented previously. That is done in the first section of the chapter, carefully differentiating between those factors that are beyond the control of the sovereign, and those that are within its grasp to influence. This is fundamental to determine how responsible is the government of a country for the quandary it faces. The behaviour of creditors when a debt crisis looms is also studied, clarifying what seems baffling conduct: why sometimes they follow a strategy that will push the debtor into rescheduling and/or default. As mentioned previously, a common assumption is that countries will service their debts with their own resources. That inaccuracy is extended to what is widely used to gauge the creditworthiness (or lack of) of sovereign borrowers: debt indicators. The ones that are most popular will not only be briefly analysed, but it will be shown why several of them are virtually useless in fulfilling that objective.

When facing a debt crisis, is a country facing a problem of liquidity or one of solvency? While both terms are borrowed from the debt problems faced by private firms, the latter is not adequate when dealing with a sovereign borrower. Countries are fundamentally different from firms, and one of main differences is summarised in the famous quote by Walter Wriston that *countries can't go bankrupt* (1982, A30). However, sovereigns can certainly go out of foreign currency to honour their scheduled commitments. Two classifications are presented to elucidate the so-called liquidity-solvency dilemma: liquidity and structural. The time and the adjustment effort necessary to surmount the crisis are the factors that will determine what kind of crisis a country is suffering.

A country suffering a debt crisis, particularly of the structural type, will need (as many creditworthy countries also do) additional borrowing to be able to service its debts. However, that country cannot access the capital markets, and to obtain loans it has to negotiate directly with its creditors (that have the incentive to do so, to stop the country from defaulting). The final section of the chapter will present simple frameworks of bilateral monopoly for those negotiations, to explain how the amount and price of the loan are determined.

As a necessary introduction to study the Mexican external indebtedness process and its crises, the economic policies followed by the government will be detailed in Chapter 3. Although, naturally, plenty of books and articles are already available on the topic, the chapter outlines in detail the policies and their relation to the indebtedness strategy followed. Following Cárdenas (1995), history is not sliced following political criteria, but economic ones. It postulates, contrary to conventional wisdom, that the seeds for the unsustainable external indebtedness policy followed during part of the 1970s and early 1980s were sown in the 1960s –a period time usually identified with a sound macroeconomic policy. The chapter also adds elements to the debate that surrounds the December 1994 economic collapse, where plenty of conflicting views already exist. The view presented in the chapter is that fiscal relaxation combined with extraordinary political shocks, along with a bungled devaluation of the peso, caused the crisis. Contrary to other analyses on the topic, it contends that monetary policy was not loose and that the peso real exchange rate was not a determinant factor in the crisis.

Before looking at the Mexican indebtedness process from the 1960s to the 1990s, it is necessary to look at the supply side –that is, the bond and syndicated loan markets during the period. Initially the chapter will present a brief evolution of the so-called Euromarkets. While accounts are

relatively abundant on the subject, points of controversy exist. Moreover, the widespread notion that those markets were greatly magnified as a result of the 1973-74 oil shock is successfully challenged.

Another common point among many analysts of the subject is that the behaviour of commercial banks in the 1973-82 decade (and particularly in 1980-81) is inexplicable or even verged in the irrational. Several reasons will be presented that will explain, as it has not been done previously, why the conduct of those supplying funds to sovereign borrowers in the international capital markets was fully rational (although it had quite wobbly foundations). The several imperfections existing in those markets are not only one of the reasons that help to explain that behaviour, but also opened the door for their potential over-use by borrowers.

The indebtedness process through syndicated loans in the Euromarkets (the most popular borrowing instrument in the 1970s and early 1980s) is then studied in detail. Particular attention is paid to the process of how a country manages to enter those markets in the first place and it then evolves within them. Yet another widespread notion is that the spread paid by sovereigns when borrowing mirrored the default risk by the country. Not surprisingly, many analysts have been bewildered by the incredibly small differences in the spreads paid by industrialised countries and other borrowers that were clearly in much earlier stages of development. Several explanations are offered to explain that closeness. The most important are two: 1) sovereign borrowers *were* considered to be different from private sector ones, and 2) spreads did reflect a risk, but was the *rescheduling* possibility, not the *default* one. Another section of the chapter looks at borrowing through the international bond markets, as bonds are the main instrument through which sovereign countries borrow since the late 1980s. Striking differences between the two markets are pointed out, along with the implications that such variances will have in the future.

The chapter also explores the question if the engine behind the Euromarkets' expansion was demand- or supply-driven. The analysis consistently points to supply. The capital markets (at least during the 1970s and early 1980s) seemingly present a superb example of the workings of Say's Law.

The external indebtedness process followed by Mexico from the early 1960s to 1997 is studied in Chapters 5 and 6, with the former analysing the years when the country enjoyed a creditworthiness status in the international capital markets, and the latter concentrating in the periods when Mexico was immersed in debt crises (1976-77, 1982-90 and 1994-95).

The Mexican experience analysed in detail in Chapter 5 provides empirical support to the theoretical framework presented in Chapter 1. Most notably, it represents a prime example of how a country services its debt with more debt. On the other hand, one of the main conclusions of Chapter 2 is that a country may lose its creditworthiness because it has "abused" of the capital markets, exploiting their faults (particularly with respect to the availability and reliability of information). That is indeed the case of Mexico. As in Chapter 3, history is sliced using economic criteria, in this case if Mexico was a creditworthy sovereign or a country immersed in a debt crisis. From 1973 to 1995, four periods of indebtedness can be clearly distinguished, all of them with a debt crisis as a line of demarcation: 1973-76, 1977-82, 1989-94, and 1995 onwards. Each of the three first cycles came to an end preceded by an intense absorption of foreign resources. In all the three cases the country was able, after months (1976-

77, 1994-95) or years (1982-89), to regain its creditworthiness status and borrow again. Different sections look at each one of the cycles, studying the indebtedness policy followed the government and showing how it got out of control as the Mexican economy became addicted to external debt. It also shows how lenders reacted to this and eventually closed their doors on Mexico, but only after being drained of resources. The analysis considerably helps to set the record straight on what side the biggest share of responsibility lies on the crises that were to follow.

The assembling of previously unavailable data on Mexican debt allows for a profound analysis of the conditions encountered by Mexican public borrowers from the 1970s to the 1990s. Several of the conclusions reached in Chapter 4 are affirmed looking at the Mexican case. Most importantly, that lending conditions obtained by the country (such as the price and the maturity of syndicated loans) are not determined by domestic factors, but by international ones. Contrary to what would have been even logical to think, not even those borrowers with the same implicit guarantee –that of the Mexican government- obtained equal conditions in their dealings with the capital markets. Comparisons are also made with other sovereign borrowers to provide additional support to the conclusions.

The 1994-95 crisis is fairly recent, and despite the considerable attention bestowed on it many of its most important aspects are not yet explored. To look at external indebtedness during the 1990s means not only looking at the progress of Mexico in the international bond markets, but also at the emergence and development of the Tesobonos. Those government securities were not only denominated in dollars, but were mostly owned by foreign investors, thus constituting quasi-external indebtedness. The chapter provides a previously unavailable analysis of the antecedents and development of the 1994 massive conversion of internal debt into Tesobonos, undoubtedly a crucial element to explain the virulence of the 1994-95 debt crisis.

The contemporary Mexican debt crises are studied in Chapter 6. The detailed account of the first one (1976-77) is not only important because it was unknown, but because of the common elements it has with the 1982-89 and 1994-95 crises, particularly with the latter. 1976-77 and 1994-95 represent outstanding examples of liquidity crises, while that of 1982-89 is a prime case of a structural crisis, and their elements confirm the categorisation of debt crises presented in Chapter 2. The many lessons that many sovereign borrowers (including Mexico) can derive from the Mexican experience are presented in Chapter 7.

The first lesson regards the myths lying behind the indebtedness process by a sovereign and the facts that should substitute them. The facts are known to all the players in that process, however, that is not what it would be deduced by looking at many analyses on the topic. One is that countries do not, necessarily, pay their debts. There is not necessarily a moment in time when the country finishes liquidating its debts and even becomes a net creditor vis-à-vis the rest of the world. Another fact is that countries, industrialised and developing, at least partially service their debts with more debt, not with exports (i.e. resources obtained through a trade account surplus) and/or a fiscal surplus.

Another lesson refers to the so-called debt payment capacity. As a sovereign may well use additional debt to finance the debt service it owes, then that variable should be included, and as one of the most important ones, as an explanatory one of why a country is creditworthy. That is, if a country is

thought to have no problems to borrow, then it will be able to do so. Not only because lenders many times follow a herd-like behaviour (as detailed in Chapter 4), but because if a creditor considers that tomorrow there will be more lenders that will provide loans to the country, then it will be able to service and liquidate the credits it receives today from him. A circular notion that undoubtedly complicates the scenario (probably for that reason it has been avoided), but that it is fundamental to explore its debt payment capacity and to explain why a country is (or is not) creditworthy.

The third lesson deals with the roots of a debt crisis. Of the several potential causes that a crisis may have and that are explored in Chapter 2, several lie beyond the control of the sovereign borrower. It is popular among certain circles, for example, to ascribe the 1980s international debt crisis to the hike in international interest rates that took place after September 1979 and the global recession that followed. Also, to argue that the commercial banks suddenly left Mexico and many other HICs suddenly out in the cold, thus pushing them into the need to reschedule and/or default. Mexico, however, cannot shield itself behind any of those reasons to argue that it was not responsible for the debt crises it was to suffer. Chapters 2, 3, 4 and 5 provide the elements to clearly distribute the responsibility on the matter, and the Mexican government has just to look in a mirror to find whom to blame, as it followed economic policies that demanded ever-increasing amounts of external debt. On the other hand, commercial banks can be charged of relying on false assumptions, precisely being one of them that borrower countries would be self-disciplined in their economic and, as part of them, external indebtedness policies.

Liquidity and structural debt crises can be clearly differentiated. If Chapter 2 presents the theory, Mexico supports it and provides a clear example of the different type of crises and with it the fourth lesson. Its experience (and that of other countries is similar) shows that the basic difference between a liquidity and a structural crisis is that of the adjustment needed to recuperate a creditworthy status. Thus, a way to differentiate between liquidity and structural crises is that, in the latter case, in its *present* conditions a sovereign is plainly unable to surpass that crisis quickly; the necessary adjustment is unattainable in the short term (i.e. within a year). Another way to categorise a structural crisis is when, *even if debt service obligations vanished completely*, the country would still be immersed in a crisis (something that would obviously not be the case in a liquidity debt crisis).

If Mexico has been able to lose and recuperate its creditworthiness status in three different occasions it can be affirmed that the answer to one of the frequently asked questions during the 1980s international debt crisis (is there life after debt?) is a definite yes. However, the Mexican experience allows going much farther than that. The three crises obviously differ among them in many aspects, but they tell a common story: domestic and external factors are at play. Both are fundamental to explain the regaining of creditworthiness. The domestic factor is the fiscal health of the country. It is fundamental, as it will show to potential lenders that the borrowing needs of the country are not enormous anymore. However, as creditors move in herds, then an external signal is crucial, one that will cause a positive shock in the expectations about the country's future, and move many creditors to lend collectively.

Lessons six and seven deal with debt indicators, several of which were discredited in Chapter 2, following the theoretical framework outlined in Chapter 1. The Mexican experience provides not only substantial evidence to sustain the disqualification of several of the most popular indicators (lesson 6), but also a solid foundation for the development of alternative, and much more effective, ones (lesson 7).

Their basis would arguably not be simpler: if a country is going to service its debts with more debt instead of, for example, exports, then debt/debt based indicators should be more powerful than debt/exports to signal the standing of the indebtedness policy being followed by any sovereign. The Mexico experience shows that is indeed the case, and several debt/debt indicators are presented as valuable alternatives to the existing ones.

The following lesson may seem obvious to the participants on the two sides of the Mexican debt negotiations: those negotiations take place in a non-market framework, and their outcome really depends on the strength that each of the opposite parties has (following a setting such as the one presented in Chapter 2). The Mexican experience allows not only to confirm that framework, but also to uncover the sources of strength of each one of the parties. The most important one was undoubtedly the U.S. government: whoever had its support was to prove the winning party (at least relatively speaking) in the negotiations.

The following lesson looks at the costs and benefits of non-default, that is, the strategy followed by the Mexican government during its debt crises. While arguably default represents no wise move as part of a long-term strategy, the obsession of Mexico to avoid it at all costs in order to present a responsible facade to the international financial community is questioned, as it apparently did not bring the expected results.

The last two lessons present a series of suggestions for all the participants in the global play of external debt. Lesson 10 presents ideas for international financial institutions (IFIs) and industrialised governments, both in the prevention and action arenas, in the latter case when a country or group of countries are facing a debt crisis. While the Mexican experience does give elements to provide concrete novel advises on the matter, it also reaffirms what Walter Bagehot said more than a century ago. The last lesson presents suggestions for the indebtedness policy to be followed by a sovereign borrower. As in many other chapters of the thesis, some may sound obvious (such as the imperative of keeping the fiscal accounts under control). However, yet again, the obvious was apparently not paid attention to and many times needs to be pointed out.

CHAPTER 1

EXTERNAL INDEBTEDNESS BY A CREDITWORTHY SOVEREIGN

1.0. INTRODUCTION

Eaton and Fernandez (1995, 2032) list three broad facts that have characterised the process of sovereign indebtedness: (1) governments have at times been able to borrow substantial amounts; (2) much of what they borrow they eventually repay, and (3) repayment is often complicated, involving delay, renegotiation, public intervention, and default. To that it should be added that (4) governments have most of the times been able to borrow substantially again, and start the cycle all over.

The process of external indebtedness by sovereign nations has always been an object of academic interest, but it acquired further relevance when many LDCs entered the fray at the end of the 1960s and after the borrowing volume increased markedly during the 1970s.¹⁰ However, attention to the subject naturally grew considerably with the international debt crisis of the 1980s. The literature on the subject that the crisis generated was abundant, and selectivity is essential to study specific aspects of the relationship between a sovereign and its interactions with the international capital markets.

The objective of this chapter is to study the first (or fourth) stage of the indebtedness process followed by a sovereign, that is, when that country is creditworthy and enjoys the favours of the capital markets. Arguably, the most important contribution of the chapter will be to detail a theoretical framework that fits the behaviour followed not only by sovereign borrowers, but also by their necessary counterparts: the lenders in the international capital markets. That approach will enable a profound analysis of a crucial aspect of the indebtedness process that is many times just taken for granted by many analysis: creditworthiness. Some of the questions to be addressed are, Why a country borrows in the first place? Why creditors lend? Why they consider a sovereign to be creditworthy? What factors may affect that creditworthiness and the indebtedness process?

While many of the pieces that will constitute the framework are readily available, it is surprising that some of their most important implications have not been explored in detail, even after the debt crisis of the 1980s and the financial crashes (where debt played a fundamental role) of several emerging economies during the 1990s. On the contrary, several inaccurate assumptions on the process of external indebtedness are fairly common. This chapter will single them out, pointing out alternatives that should take their place.

Section 1.1 explores different explanations for why a sovereign government may resort to external indebtedness in the first place. The following section presents a theoretical framework for that such indebtedness process may follow, and analyses its potential implications. From that framework, Section 1.3 derives why a country is considered to be creditworthy by potential lenders, and therefore able to borrow from them, while Section 1.4 analyses the potential constraints that a country will face in that process. Section 1.5 examines the question if the relationship between a sovereign borrower and its lenders can evolve into a Ponzi¹¹ game, to be followed by conclusions.

¹⁰ That increase is usually explained as a result of the 1973-74 oil shock, but in reality it preceded it (see Chapter 4 for details).

¹¹ From December 1919 to August 1920, in Boston, Charles Ponzi built one of the most famous pyramid-schemes. Offering a yearly-compounded rate of approximately 2700% (50% for a renewable period of 45 days) he managed to run the scheme by paying to those that retired their money with the deposits from new savers. For a brief history see U.S. Supreme Court (1924).

1.1. MOTIVES FOR EXTERNAL INDEBTEDNESS

Following McDonald (1982, 603), two approaches may be followed to study the indebtedness process of a country. One is to ask how much a country *should* borrow, that is, what is the optimal level of external debt? The second approach focuses on trying to determine how much a country is *able to pay*, while simultaneously sustaining a certain development strategy, and have that payment capacity as a bound to its borrowing. In principle, all that is required is that the consumption plans of the country do not violate its intertemporal budget constraint - that is, a sovereign borrower's plans are sustainable if the present value of its consumption plans is less or equal to the present value of income generated. The optimising approach is more in keeping with the economist's approach to problems of choice, and has been, and is, a major focus of the theoretical literature.¹²

Eaton and Gersovitz (1981b, 8-10) explore several reasons why a sovereign would demand credit. Following the consumption motive, a country will borrow because it anticipates a high rate of growth in income over a long period in the future, and chooses not to wait to increase its consumption. Another possibility is that debt is used to smooth consumption at a certain level when periods of high and low income are experienced; the country borrows during bad periods and repays in the good ones. When the country experiences a negative shock, the adjustment motive comes in; debt softens the need to implement a rapid cutback on the levels of absorption. Under the production or investment motive, a sovereign will go to the credit market to obtain resources to exploit a positive difference between the marginal product of the domestic endowment of capital and the rate of interest in world markets. A country may also demand credit to finance transactions, or to accumulate reserves.

On the assumption that a borrower is driven by the consumption motive, Eaton and Gersovitz (1981a) consider that a sovereign chooses to repay to avoid an embargo on future loans, that it may need in the future. However, the benefits of default grow with the debt size; as there is a point where a country could benefit from defaulting even if permanently barred from the capital markets, lenders impose a credit ceiling. Eaton, Gersovitz, and Stiglitz (1986, 491) analyse a country that borrows because of the investment motive. Eventually, a point will be reached beyond which the debtor will begin making transfers to its creditors, once the marginal product of capital equals the interest rate. At this point, they conclude, the debtor will default. By backward induction, it would never be able to borrow, at least for development purposes. However, as Cline (1995, 141) points out, this proposition flies in the face of the central neo-classical view of international capital markets: capital is reallocated from developed countries, where it is relatively abundant and its return is lower, to LDCs, where capital is more scarce and the return is higher. Alternatively, another way of looking at the motives for indebtedness is that of Fishlow (1989, 220-221), depending on the gap that debt finances:

$$(1.1) \quad D = M - X + iD \quad \text{Foreign exchange gap.}$$

$$(1.2) \quad D = I - S + iD \quad \text{Savings gap.}$$

$$(1.3) \quad D = G - T + iD \quad \text{Public sector gap.}$$

¹² Surveys are presented by Eaton, Gersovitz, and Stiglitz (1986), Eaton (1993), and Eaton and Fernandez (1995). Cline (1995, Chapter 4) provides a comprehensive and critical review of the literature spawned by the international debt crisis

Where D is debt, M imports, X exports, I investment, S savings, G government expenditure, and T is government revenues. In all cases, the change in debt is inertially determined by the interest rate plus the real resource gap.

As principles of optimality are difficult to apply, the focus of the applied literature is more in the spirit of the sustainability criterion. Analysis based on that approach could even put aside the motives that a sovereign may have to borrow in the first place, as it will be done precisely in the following section. For whatever reasons (undoubtedly various, like the ones outlined above), countries have been able for centuries to tap the international capital markets. Section 1.2 presents a theoretical framework of such a process of external indebtedness.

1.2. THE INDEBTEDNESS PROCESS

Eaton (1993, 139-141) presents a simple set of equations that, although following the optimising approach, can also provide a starting point for the sustainability outlook. It is assumed that utility is additively separable across time and that utility in any period t is a concave function $u(C_t)$ of consumption C_t in period t . Consumption cannot be negative. The representative body (government) of the sovereign discounts future consumption by some factor ρ (between 0 and 1). It borrows in international capital markets at an interest rate r , which for simplicity is considered constant over time.¹³ Output per period is Q_t . At time 0 the country's external debt is also 0. The objective is to maximise:

$$(1.4) \quad U_0 = \sum_{t=0}^{\infty} \rho^t u(C_t)$$

Each period t , the country chooses to borrow some net amount B_t (defined as new borrowing less repayments of principal on old debt), but it must pay interest rD_{t-1} on debt accumulated as of the end of the previous period. What is left over, for consumption, is then

$$(1.5) \quad C_t = Q_t + B_t - rD_{t-1} = Q_t + NT_t,$$

where NT_t is the net transfer in period t , that is, new borrowing minus debt service (interest payments). Debt at the end of the period t is

$$(1.6) \quad D_t = D_{t-1} + B_t = (1 + r) D_{t-1} + NT_t$$

Iterating the second part of equation 1.6 backward to period 0 gives

$$(1.7) \quad D_t = \sum_{i=0}^t (1 + r)^{t-i} NT_i$$

That is, debt in period t is just the cumulative discounted net resource transfer since period 0 (when debt was 0). All the net transfers that the country receives or makes explain the difference between the (discounted) value of the debt at the time t , $D_t/(1+r)^t$, and its initial value, D_0 .

If the country has no limit on what it can borrow in any period, it can attain an arbitrarily high level of consumption without defaulting, by perpetually financing debt service obligations with new borrowing. Naturally, lenders as a group would lose money if they let the borrower do this. To avoid a loss, lenders cannot allow the anticipated discounted value of resource transfers that they ultimately provide the country to exceed 0, so that:

$$(1.8) \quad \sum_{t=0}^{\infty} \frac{NT_t}{(1+r)^t} = \sum_{t=0}^{\infty} \frac{C_t - Q_t}{(1+r)^t} \leq 0$$

This last condition is often called the intertemporal budget constraint.

¹³ Thus acquiring an external debt (debt and external debt are considered as synonymous in this and the following chapter). While the sovereign can in theory also lend in those capital markets, the interest of the case to be outlined resides in that of a country that becomes, and remains, a net debtor vis-à-vis the rest of the world.

Dividing equation (1.7) by $(1+r)^t$ gives

$$(1.9) \quad \frac{D_t}{(1+r)^t} = \sum_{i=0}^t \frac{NT_i}{(1+r)^i}$$

Equations (1.8) and (1.9) imply the following restrictions on debt: the solvency restriction and the transversality condition. The solvency restriction is obtained by substituting equation (1.9) into equation (1.8). Then, for any period t we have that,

$$(1.10) \quad D_t \leq \sum_{T=t+1}^{\infty} \frac{Q_T - C_T}{(1+r)^{T-t}}$$

Because consumption cannot be negative, this condition implies that

$$(1.11) \quad D_t \leq W_t, \text{ where } W_t = \sum_{T=t+1}^{\infty} \frac{Q_T}{(1+r)^{T-t}}$$

This is the present discounted value of the borrowing country's remaining income stream. The condition given by equation (1.11), often called the solvency constraint, states that debt in any period cannot exceed W_t if lenders are to find their relation with the borrower profitable. In principle, the right side of equation (1.11) could be infinite, in which case the constraint disappears. This would mean that the country's current and future resources are infinitely valuable, which could happen if the country's growth rate was on average greater than the interest rate.

Together, equations (1.8) and (1.9) imply that

$$(1.12) \quad \lim_{t \rightarrow \infty} \frac{D_t}{(1+r)^t} \leq 0$$

Equation (1.12) is often called the transversality condition: to realise a collective positive return on their loans, foreign creditors cannot allow the discounted value of debt in the infinite future to be positive. As it is clear from equation (1.6), a borrowing strategy that never called for a net resource transfer to creditors would require debt to grow at or above the rate of interest, violating equation (1.12).

As Cohen (1985, 162) points out, debt just cannot grow, on average, faster than the interest rate. When equation (1.12) is equal to zero, then

$$(1.13) \quad D_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+r)^t}$$

The initial value of the country's debt is worth exactly the discounted value of all the repayments to be made by its government. This is the standard case in the finance literature: the value of an asset is the discounted value of all the dividends attached to it. The asset is said to be worth its "fundamentals". If the debt were traded on a secondary market, its market value would exactly match its face value.

Or, following Fishlow (1989, 220-221), depending on the gap that the external debt is financing (see equations 1.1 to 1.3), the interest rate should be less than the export growth rate, the growth of income, or the growth of government revenue. In those cases, the debt/export, debt/GDP, and debt/tax ratios will converge to limits, in accordance with a constant proportional financing gap. Initial growth rates of the debt decelerate as limiting ratios are approached. These limits are:

$$(1.14) \quad \lim_{t \rightarrow \infty} \frac{D}{X} = \frac{\alpha}{r_x - i}, \quad \text{where } \alpha \text{ is the ratio of the gap to exports.}$$

$$(1.15) \quad \lim_{t \rightarrow \infty} \frac{D}{X} = \frac{\beta}{r_y - i}, \quad \text{where } \beta \text{ is the ratio of the gap to income.}$$

$$(1.16) \quad \lim_{t \rightarrow \infty} \frac{D}{X} = \frac{\gamma}{r_t - i}, \quad \text{where } \gamma \text{ is the ratio of the gap to taxes.}$$

With n representing the growth rate of Q , and c representing a constant, the solvency constraint and the transversality condition, imply that

$$(1.17) \quad \lim_{t \rightarrow \infty} \frac{D_t}{Q_t} = \begin{cases} \infty & \text{if } r > n \\ c & \text{if } r = n, \\ 0 & \text{if } r < n \end{cases} \quad \text{where}$$

Whatever the use that the external debt borrowed by a country has, if the transversality condition is violated, it then means that

$$(1.18) \quad \lim_{t \rightarrow \infty} \frac{D_t}{(1+r)^t} > 0.$$

In that case

$$(1.19) \quad D_0 > \sum_{t=1}^{\infty} \frac{D_t}{(1+r)^t}$$

The face value of the debt is larger than the discounted value of the payments to be made by the debtor. As a particular case one finds that situation when $NT_t = 0$. Here $D_t/(1+r)^t = D_0$; the debt grows at the rate of interest: in discounted terms it stays constant since the debtor makes no repayment).

Equation (1.11) represents the solvency constraint, but a key problem is to determine what really is (and hence the value of) Q . Following the framework outlined above, potential lenders look at Q , and decide if to extend a loan to the sovereign in question or not. The key to creditworthiness, thus, apparently resides in that, until now nebulous, variable. Section 1.3 will explore the gist of Q , and its significance for the creditworthiness of a sovereign borrower.

1.3. SOURCES OF CREDITWORTHINESS

In Eaton's (1993, 139) model, Q represents the output of the country. If a proxy of this Q_t is the country's GDP, then a more restrictive definition of the variable must be found, that is, one where Q_t represents the value of the assets that are available to cover the obligations of the external debt. Following Fishlow (1989, 220) other options are exports or government revenues. But evidently, creditors do not expect that the government of a country will be capable (and even if it was, willing) to appropriate the whole revenues from taxation or exports to debt servicing. Eaton, Gersovitz, and Stiglitz (1986, 499) present two basic identities as a way of understanding the problems that arise in evaluating the ability of a sovereign to service its debts. If D is total debt, ΔD repayment of debt, r the interest rate, and TB the trade account balance then in any period

$$(1.20) \quad \Delta D + rD \equiv TB$$

If S is private savings, I domestic investment, T tax revenue and G government spending then

$$(1.21) \quad \Delta D \equiv (S-I) + (T-G)$$

Following (1.20), a country's net worth would be the discounted present value of its trade balance. This is a perspective also followed by Cohen (1985), Cooper and Sachs (1985), and Simonsen (1985). Cohen (1985, 145-146) considers that, in the case of LDCs, GNP (or GDP) is a bad proxy for Q . It would be only in the very long run, and with the assumption that the factors of production are perfectly mobile, that GNP might give a reliable measure. Otherwise, what matters is the amount of foreign currency that can be earned by the country, and a better proxy for the potential external revenues of the country would be output of the traded-goods sectors. As there are no reliable statistics for them, Cohen uses exports as a substitute.¹⁴

Following (1.21), if domestic product Y is independent of T , an unconstrained government could in theory set $T = Y$, and $G = I = 0$, in which case $S = -rD$, and $\Delta D + rD = Y$. However, as Eaton, Gersovitz, and Stiglitz (1986, 500) point out

Since sovereign loans are owed by the governments of countries, repayment is not constrained by the net worth of the country, but by the component of net worth that the government can (or is willing to) appropriate. For a government that can impose lump-sum taxation at no administrative cost, national wealth and maximal government revenue do coincide. Taxes typically impose excess burdens and are costly to raise, however, so that the maximal amount that the government can extract from an economy falls short of the net worth of the economy. Nonetheless, it seems implausible that governments are anywhere near making the maximum feasible debt service.

Analysts such as Wiesner (1985), Reisen and van Trotsenburg (1988), and Cline (1995) place emphasis on the consequences of the fiscal balance (government revenues minus its expenditures) on the indebtedness process (*and* the international debt crisis).

Whatever is Q , undoubtedly potential lenders have considered that its value was such that it was potentially profitable to grant a loan to the respective country, as several sovereign countries have

been (and are) considered creditworthy, and have tapped the international capital markets. It must be pointed out that, when providing that loan, creditors are taking into consideration an *expected* Q rather than the one existing in the moment that the country borrows. That is, the *future values* of Q during the period throughout which the country will service that debt.

Following the studies mentioned above, Q could be a composite of several factors, such as

$$(1.22) \quad Q = f(E(Y, CAB, FB))$$

that is, production along with the external (current account) and fiscal balances.

Several of the analyses mentioned above consider that, eventually, a country will service its debts with *its own resources*. Such as a sovereign borrower in a two-period model, where in period 1 it borrows and in period 2 it pays debt and interests. Or, more complicated, a debt cycle divided in three phases, such as that outlined by Simonsen (1985, 103-105). Phase I is that of positive resource gaps (a reflection of the balance of payments of LDCs), when debt grows at a pace faster than the interest rate. In phase II the country scores resource surpluses, but these are not big enough to offset interest payments. Hence, debt continues to expand although at rates of growth below the interest rate. Finally, in phase III the resource surpluses acquire the necessary momentum to overcome the interest payments, and the nominal debt declines until it is paid off (Figure 1.1).

However, the (crucial) assumption that a country will eventually not service its debt with its own resources (eventually paying it off) has no real support. Even countries that have, beyond doubt, “graduated” to a higher stage of development have external (and/or internal) debt. Only with respect to specific (and characteristic) creditors may certain sovereign borrowers have gone through the three stages outlined by Simonsen.¹⁵ None of what are actually considered as developing countries can claim to be covering debt service (at least totally) with its own resources (that is, an advanced phase III).

While many analyses apparently assume that countries in general, and LDCs among them, service their debts with trade or fiscal surpluses, the fact is that debt service is (at least partially) usually financed, by industrialised and developing countries alike, with new borrowing (NB). Naturally, both creditors and potential new lenders are well aware of this fact. In that case, a fundamental variable should be added to (1.22):

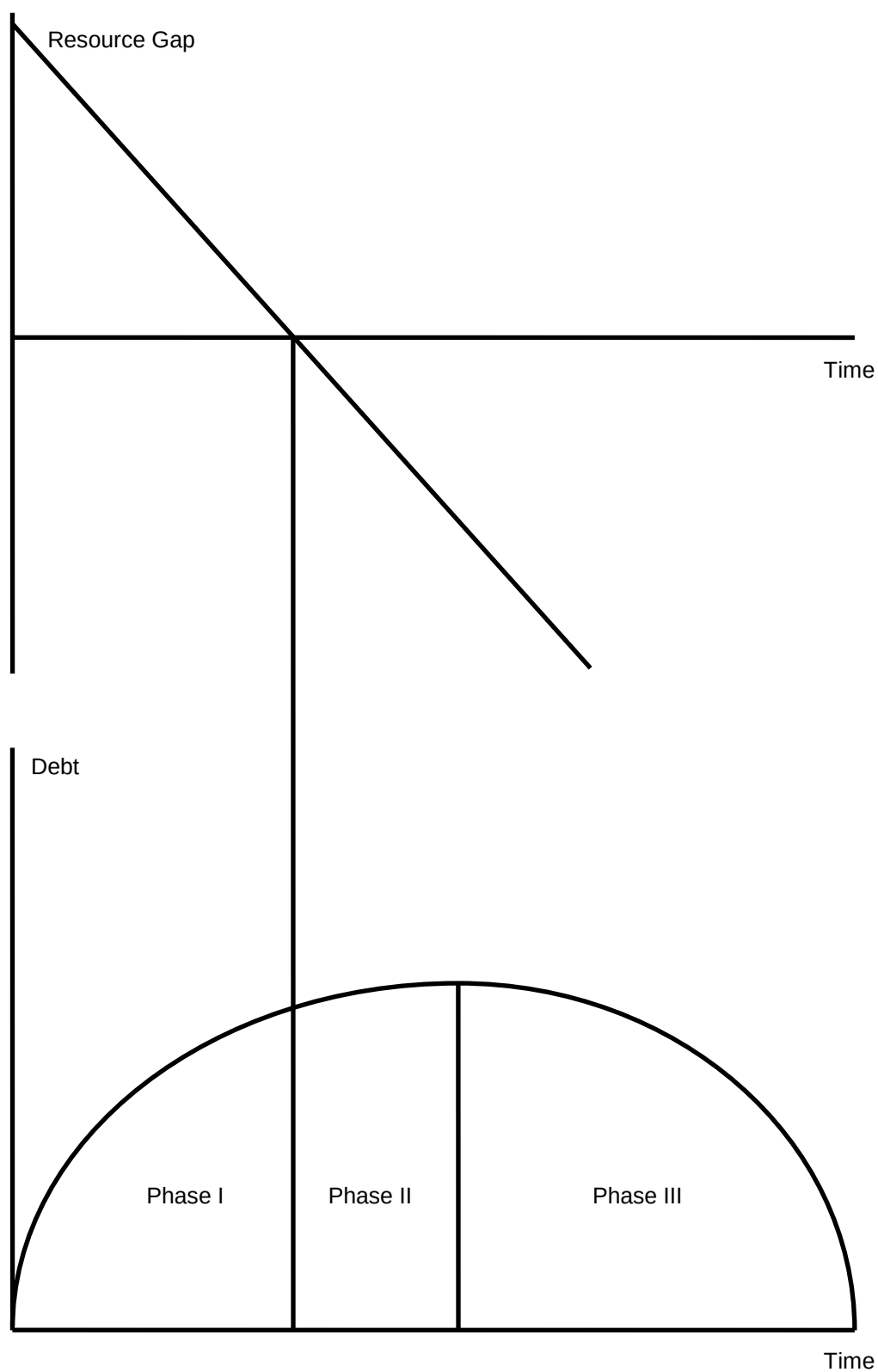
$$(1.23) \quad Q = f(E(Y, CAB, FB, NB))$$

Where NB represents the new borrowing that the country will receive in the future. A positive NB¹⁶ increases the perceived value of Q ; that is, the perceived creditworthiness of the country is enhanced in a circular way (the expected future creditworthiness affects the present creditworthiness of the sovereign borrower).

¹⁴ Cohen (1985) develops a solvency index based on exports.

¹⁵ For example, Japan finished paying the credits it owed to the World Bank in 1990 (Volcker and Gyohten 1992, XXX).

Figure 1.1. Debt Cycle Phases



Source: Simonsen (1985, 104).

¹⁶ New borrowing, however, does not necessarily mean that the country is receiving a net transfer of resources.

That is, for a potential lender, the value of Q will increase if it considers that in that future the sovereign borrower will have access to the capital markets, allowing it to finance the future debt service with additional borrowing. That is, the fact that a country is creditworthy to some lenders, and thus has obtained a loan from them, will be enough signal to make it creditworthy to the eyes of others, that will then be willing to offer additional loans.¹⁷

The $E(NB)$ variable is, therefore, crucial to explain the creditworthiness enjoyed countries that, for example, have substantial deficits in both their fiscal and external accounts and are expected to have them at least in the medium-term –as it is the case of most, if not all, LDCs. Even when it is expected that *eventually* a country will reach a stage of development where trade and fiscal surpluses are the norm, it would be incongruous to suppose that a creditor provided the money expecting a country to make the development jump during the time that the loan will take to mature.¹⁸ However, with Q being a function such as (1.23), there are three elements that explain why a potential lender may consider a country to be creditworthy, and thus is willing to lend to it:

- The expectation that, eventually, the country will reach a higher stage of development, and will pay its debts with its own resources –for example through a surplus in the trade account-, following a path such as the one presented in Figure 1.1;
- The expectation that other lenders will provide loans in the future, which will be used to cover the debt service of the credits provided today. That is, the lenders of the present know that their money is going (at least partially) to the lenders of yesterday, and that they will be paid with money from those that provide resources tomorrow.
- The expectation that both the sovereign and other lenders will finance the debt service, while the debt diminishes in real terms. For example, if creditors refinance (for example with a constant roll-over of the loans) the credits when they become due, and provide new loans to cover a fraction of the interest due, then the total debt will be decreasing in real terms in each period, and with an infinite horizon it will tend to zero.¹⁹ Naturally, the debt would even tend faster to zero if the country covered the interest payments with its own resources.

Therefore, if a country is able to find creditors in the first period, then it will be able to find more in the future. Otherwise, it would have never been lent anything in the first place, if lenders knew that at a certain moment the sovereign would find no loans in a certain period (or if the horizon was finite). As Cohen (1985, 142-143) states, even when there was not going to be any repayment attached to a loan, it will be provided by lenders, if they know that it can be sold to new lenders later on. That is, as Cohen points out, a surprising result first found by Samuelson (1958, 481-482) regarding money: while it is not repudiated by future generations, it will be passed as a claim from one generation to the following one.

¹⁷ See Devlin (1989, 146-156) for a detailed analysis of the cases of Peru and Bolivia that supports this notion.

¹⁸ Moreover when loans to LDCs during the 1970s and 1980s rarely exceed a 10-year maturity (see Chapter 4 for details).

¹⁹ When the rate of growth of the debt is less than the rate of inflation. If interest rates are well above inflation, a debt growing at a speed inferior to that interest rate may well be growing in real terms.

Even in a world with only one lender, the first and third explanations would provide the foundation for the granting of creditworthiness to, and the indebtedness process followed by, a sovereign borrower. In the actual international capital markets, with numerous lenders of different sizes, imperfect information, and a competitive environment, any of the three, or a combination of them (with different lenders having different motives to explain their behaviour), can provide that base.

Expression 1.23 points why creditworthiness is bestowed on a sovereign. The following section will explore the limits to that creditworthiness, and thus the bounds to the indebtedness process.

1.4. CONSTRAINTS ON THE INDEBTEDNESS PROCESS

Equation (1.11) represents the solvency constraint. Then if, on average, the growth rate of Q exceeds the interest rate, a sovereign would be permanently solvent. That is, its resources are infinitely valuable, and any level of debt is then consistent with solvency, and there would be no constraints on the amount of debt that country would acquire. For Eaton (1993) this idea -that entails the violation of the transversality condition- is unacceptable, and considers that “a growth rate above the interest rate is almost surely a temporary phenomenon” (141). Presumably, Eaton considers, the demand of credit by a permanently solvent country would drive the world interest rate up to the point at which the constraint became binding (apparently violating the small-country assumption).

What will be bigger, the growth rate of Q or the interest rate, on average, for a lengthy duration of time is impossible to determine –and history does not provides many clues on what to expect, and does not seem to side with the assertion by Eaton. After World War II a long period of global economic stability and growth took place. For several decades, international interest rates were stable (along with inflation), while many countries (industrialised and developing) enjoyed enormous rates of growth in their exports and national products. The global jump in inflation experienced because of the collapse of the Bretton Woods system and the 1973-74 oil shock was not accompanied by a corresponding increase in interest rates. In real terms, those rates continued to be very low or even negative. While the industrialised countries were pushed into recessions, many LDCs avoided the crunch, thanks to increased oil revenues or external debt, and their growth continued to be spectacular. That situation abruptly reversed after 1979, with very high real interest rates during the 1980s. Interest rates decreased again markedly during the 1990s.²⁰

The solvency constraint can also be violated in its left-hand side, because lenders as a group may well be unaware of the value of D that is being reached because of their aggregate efforts. Thus, the fact is that the *three* variables included in the solvency constraint may change radically through time, and a country –and its creditors- would face deep trouble for not considering that possibility.

Is it possible for any country to violate, in the very long run, the transversality condition, to remain on average a net borrower forever? Apparently, yes. Even a higher degree of development does not necessarily indicate that the country has evolved through the phases of the debt cycle and eventually becomes a net creditor vis-à-vis the rest of the world. On the contrary, the fiscal and external deficits run by several industrialised nations ensure that sovereign debts (internal and external) just keep accumulating.

What happens if the solvency constraint can be violated? Are there no bounds to the credit demand by the sovereign borrower, or to its supply from lenders? What would be the minimum a country would demand from the capital markets in every period? The necessary amount to cover the interests and the debt coming due, that is, the full amount of the debt service, to avoid any net transfer of resources to its creditors. In that case, the external debt of the country would be growing at a rate

²⁰ The abrupt increase of international interest rates at the end of 1979 and the reasons why it was not just a short-term phenomenon are detailed in Chapter 4. See Table C1 for nominal and real interest rates since the 1960s.

equivalent to the interest rate paid by the country for its loans.²¹ Would there be a maximum in that demand? No, if the country knew it would be able to borrow in the next period the necessary money to cover the respective debt service. Lenders will also fix no maximum limit on their loans if they also consider that the country will be able to borrow in the next period the necessary money to cover the respective debt service.²² Therefore, the evolution of the indebtedness process could be determined by the expectations, of debtors and creditors, on the future availability of loans in future periods of time.

The scenario of an indebtedness process with limitless supply and demand for credit clashes with the fact that it has faced grave disruptions, in the form of debt crises, throughout history. An explanation is that the solvency constraint suffers a change in one or more of its components. Arguably, any restraint in the indebtedness process will come from the supply side –it is certainly difficult to imagine a country restraining itself if resources are within its reach.²³ In the framework described above, creditors could limit or even cancel their supply of loans if the country faced a negative shock, if they considered that in the future the sovereign will be unable to find sufficient funds from other (or the same) lenders to (at least partially) service its debts with more debt or because of a contagion effect.²⁴

Thus, there *is* a boundary to indebtedness. It is built around the variables in equation (1.11), with Q a function such as (1.23). However, it is impossible to draw a clear-cut “credit ceiling” for any sovereign borrower, as this boundary is built partially on expectations. The factors that draw the boundary will keep any sovereign indebtedness process under a certain control –or in extreme cases will bring about a loss of creditworthiness and, possibly, a debt crisis.

But even if a boundary, although ethereal, exists, that does not mean that the solvency constraint holds. The possibility that the solvency constraint can be violated exists. That is, that a sovereign borrower remains, permanently, a debtor vis-à-vis the rest of the world, with new (or the same) lenders refinancing the debt. Is it possible, then, that a sovereign and its creditors are playing a Ponzi game?

²¹ When dealing with commercial lenders that usually meant that the country paid a (floating) reference rate (usually LIBOR or Prime) plus a spread.

²² Of course, lenders may present a limit in the amount they are willing to lend just because the resources they have at their disposal are not infinite, or because of restrictions imposed by regulatory authorities or self-imposed rules (such that only a fraction of their total portfolio of loans would be available for a single borrower).

²³ However, even if certainly rare, there are cases of countries that restrained their demand for loans even when creditors were pushing hard to provide them, such as it was the case of Colombia during the 1970s.

²⁴ The different ways through which a sovereign borrower may lose its creditworthiness are analysed in detail in Chapter 2.

1.5. CASES OF PONZI LENDING?

Why would lenders be interested in providing funds to a sovereign borrower that may keep the position of net borrower forever? Several motives explain this apparently baffling conduct. One is that countries, while far from eternal, certainly have a life-span that on average covers many generations, and even when a new country takes its place usually liabilities such as debts are transferred to the sovereign that took its place.²⁵ There is no “end of time” in sight when lending to a sovereign. With overlapping generations of creditors (literally) passing the bucks to each other (in the form of debt contracts), the possibility that one generation will end up clutching the baby without somebody behind to pass it over appears as a distant one.

And even then, when a debt crisis explodes and the indebtedness process comes to a halt, repudiation is not what follows. It is rescheduling, and at the very least interest payments continue to be covered (at least partially) while the payment of principal is pushed into the future, a situation far from disastrous for creditors.²⁶ Why would anybody be interested in lending under the tacit understanding that they would never receive their money back, but only the interests? Rubio and Gil Díaz (1987) provide the answer: a debtor -be it a person, a business or a sovereign- has to pay both interests on its debt as well as amortisation on its principal. However, their argument is that both should not be seen as different things. When making interest payments, debtors are already paying part of the total value of the loan (where total value can be understood as the present discounted value of all interest payments plus the present discounted value of the principal). A way to illustrate this point would be

... to ask a banker if he would accept the payment of interest on a loan for a hundred years if he would never get back the principal; he probably would not quibble very much about accepting this proposition because the principal becomes a smaller and smaller part of the original present value of the loan as the time of payment is pushed into the future (Rubio and Gil Díaz 1987, 32).

Table 1.1. clearly shows the implications of a loan of that kind: after five years of servicing that loan (at a 10 percent interest rate), 38 percent of the original value of the loan has already been paid. In 20 years, the lion's share of the debt is paid off, even if no principal payments are made. The present value of the debt at any future date declines as time passes by, and eventually becomes arbitrarily small. This would actually be true as long as the debt grows slower than the interest rate (when a part of the interests is actually paid). If that debt had a secondary market, its value in it would be exactly its face value. In that case, the present value of future debt goes to zero in the long run.²⁷ The example illustrates why banks wouldn't care about roll-overing their credits, if interest payments kept flowing uninterruptedly. And, of course, there was the additional incentive that the loan would eventually be amortised. To ensure this happy state, a constant flow of credits is necessary (or an abrupt adjustment from the borrower to ensure payment from its own resources). In that case, banks would be following the non-written rules of a Ponzi game: with the bank putting in the money expecting its eventual payments from the resources of the banks that followed.

²⁵ As was the case of the external debt of the now defunct Soviet Union.

²⁶ The relationship between a country that has lost its creditworthiness and its creditors will be studied in detail in Chapter 2.

²⁷ If D_t is the value of the debt at time t , and r a constant rate of interest, $D_t/(1+r)^t$ goes to zero as t goes to infinity if D_t is constant, or growing at a rate smaller than r .

Table 1.1. Proportion Paid of the Interest Value of a Loan in which Only Interest is paid^a

Year	Loan Value	Interest Value	Proportion Paid	Year	Loan Value	Interest Value	Proportion Paid
0	1000.0	0	0.0	20	6727.5	5727.5	85.14
1	1100.0	100.0	9.09	22	8140.3	7140.3	87.72
2	1210.0	210.0	17.36	24	9849.7	8849.7	89.85
3	1331.0	331.0	24.87	26	11918.2	10918.2	91.61
4	1464.1	464.1	31.70	28	14421.0	13421.0	93.07
5	1610.5	610.5	37.91	30	17449.4	16449.4	94.27
6	1771.6	771.6	43.55	32	21113.8	20113.8	95.26
7	1948.7	948.7	48.68	34	25547.7	24547.7	96.09
8	2143.6	1143.6	53.35	36	30912.7	29912.7	96.77
9	2357.9	1357.9	57.59	38	37404.3	36404.3	97.33
10	2593.7	1593.7	61.45	40	45259.3	44259.3	97.79
11	2853.1	1853.1	64.95	42	54763.7	53763.7	98.17
12	3138.4	2138.4	68.14	44	66264.1	65264.1	98.49
14	3797.5	2797.5	73.67	46	80179.5	79179.5	98.75
16	4595.0	3595.0	78.24	48	97017.2	96017.2	98.97
18	5559.9	4559.9	82.01	50	117390.9	116390.9	99.15

a. Loan of \$1,000 at a yearly interest rate of 10%. a. Loan of \$1,000 at a yearly interest rate of 10%. a. Loan of \$1,000 at a yearly interest rate of 10%.

Source: Based on Rubio and Gil Díaz (1987, 32).

However, a problem arises when all the creditors foresee payments' difficulties from the borrower, and the banks start to refuse to roll-over, precisely because of the knowledge that the next bank will also try to pull out. To study the possible causes of a loss of creditworthiness, and to analyse what kind of indebtedness process a sovereign borrower would follow then, is the objective of the following chapter.

1.6. CONCLUSIONS

1.6.1. Basis of Creditworthiness

Creditworthiness is a fuzzy concept, as it is clear from function 1.23. It is not only determined by concrete aspects of the economy, but also by expectations. Function 1.23 presents the basic elements that will determine whether a sovereign will be considered to be creditworthy by potential lenders. While many authors have discussed most of them, the inclusion of the expectation of the borrowing that will be obtained by the country constitutes an important, and crucial, difference. Not only will a prospective creditor look at the GDP of the sovereign, its external and its fiscal accounts. It will also take into consideration whether that country will be able to attract more loans in the future. This is because it knows that (very probably) the future debt service may be financed from a surplus in the external accounts, or with resources obtained through new borrowing.

Q represents the value of the income stream that that can be transferred to creditors and that the sovereign borrower will receive in the future. Borrowing that will take place during that future represents a fundamental part of it. Creditworthiness is, therefore, circular, including among its determinants the expected future creditworthiness of the country. This circularity undoubtedly complicates the explanation of creditworthiness, and that is probably why several analysts of the debt problem have not taken it into consideration, but it is fundamental to provide a fuller explanation on the concept. A country is not going to service its debts with exports or a chunk of GDP. That may sound logical, or even obvious. However, that is what many would think looking at many of the studies on the subject.²⁸ What really happens is that a country is going to service its debt with more debt. That is common knowledge to all the parties in the indebtedness process. The purposes of borrowing are, in consequence, secondary to many lenders. If a loan will be used for consumption, investment, to smooth a negative shock, it will be of little relevance for creditors, as they do not expect debt service to be financed from, for example, the revenues from an investment paid with the debt.

1.6.2. Constraints on Sovereign Borrowing

With a function as 1.23, it can be ascertained that the indebtedness process certainly faces bounds, but they are as fuzzy as the concept of creditworthiness. Both the borrower and the lenders are bound by exactly the same factor: the expectation on how much the next overlapping generation(s) of creditors will lend. Precisely the expectation factor makes impossible to draw a clear-cut “credit ceiling”. Sovereign borrowers are certainly able to violate that boundary in the short-term, but the consequence for that action (depending on the justification) may well be a loss of creditworthiness, and as a result a debt crisis

²⁸ It is possible that several analysts, as it was the case of Simonsen (1985) considered that the international debt crisis of the 1980s heralded the definite passage of HICs from phase I to phase II (see Figure 1.1). Therefore, that debtor countries were to

1.6.3. Violation of the Solvency Constraint

Can the solvency constraint be violated? At the very least, it is impossible to affirm that it cannot be. If history is any guide, there are elements to consider that it may well happen, with a country remaining a net debtor vis-à-vis the rest of the world. It is impossible to foresee the future evolution of Q and of international interest rates –and looking at recent history the high real interest rates of the 1980s look more like the exception than the rule. Moreover, neither for the sovereign borrower nor for its creditors there is an specific period of time by which the country has to pay back its debts; there is no “end of time” in the indebtedness process.

1.6.4. Playing Ponzi Games?

Are lenders and borrowers playing, with common knowledge, a Ponzi game? Both sides are bound by a limit, but it is a fact that there is no clear end to the process (when a country finishes paying its debts). It is also a certainty that debt service is (at least partially) financed with additional debt. Under those considerations, Ponzi games are certainly played, and some of them do finish (at least temporarily) in payments' or debt crises. While it cannot be ascertained that all indebtedness' processes between sovereigns and the international capital markets are Ponzi games, at least some of them may fall into that category, at least in a peculiar form of Ponzi game, where the money of new (or the same) lenders is used to cover the debt service for the previous ones. Exceptionally, in this game that fact is common knowledge. However, on the other hand, any explosive trend in the game (the indebtedness process) is usually brought to a halt by a crisis. The indebtedness process by a sovereign, thus, could be categorised as a peculiar Ponzi game, because of the boundaries to the process.

service their debts with their own resources. However, instead of remaining in Phase II or even moving to III, with the end of the debt crisis HICs moved back to phase I. For the case of Mexico see Chapters 5 and 6.

CHAPTER 2

LOSS OF CREDITWORTHINESS, DEBT CRISES AND EXTERNAL INDEBTEDNESS BY A SOVEREIGN

2.0. INTRODUCTION

As Solberg (1992, 13) has pointed out, the array of outcomes for a private international loan to a sovereign is either 1) full contractual payment, 2) voluntary refinancing, 3) involuntary refinancing (or rescheduling), 4) involuntary refinancing plus involuntary “new” lending (that in reality amounts many times to a capitalisation of interest payments), 5) default or 6) repudiation.¹ In any of the last four cases, it can be ascertained that the sovereign in question is facing a debt crisis. The purpose of the present chapter is to study, in general terms, a sovereign borrower that is suffering a debt crisis, along with its crucial precedent: the loss of creditworthiness. That will provide the elements to construct a framework necessary to fully assess any country (like Mexico) in such quandary.

How a sovereign loses its creditworthiness? That crucial question, neglected in the debt literature, is answered in section 2.1 by following the framework presented in Chapter 1 –clearly distinguishing between those factors that are outside the control of the country and those that are within it. The behaviour of creditors when a debt crisis looms is also studied, clarifying what seems a baffling conduct: why sometimes they follow a strategy that will push the sovereign borrower into rescheduling and/or default.

The standard ways to gauge the creditworthiness of a sovereign are debt indicators. Section 2.2 will briefly analyse the most popular ones, emphasising why most of them are virtually useless in fulfilling that objective. Section 2.3 categorises debt crises in two different orders (liquidity and structural crises), clarifying the so-called liquidity-solvency dilemma.

A country suffering a debt crisis, particularly of the structural type, will need (as many creditworthy countries also do) additional borrowing to be able to service its debts. However, that country cannot access the capital markets, and to obtain loans it has to negotiate directly with its creditors (that have the incentive to do so, to avoid default). The final section of the chapter will present simple theoretical frameworks for the indebtedness process that a HIC will follow when stripped of its creditworthiness status, and suffering from a structural debt crisis. Those frameworks of bilateral monopoly explain how the amount and the price of the loan are determined.

¹ Debt repudiation is defined as the determination by any sovereign authority to unilaterally refuse to recognise certain clauses or the totality of a debt contract, thus not making any more payments (of interests or principal) to it. While default also involves the cessation of payments, it is just a temporary measure, and it certainly does not include the refusal from the sovereign debtor to recognise debt contracts.

2.1. THE LOSS OF CREDITWORTHINESS BY A SOVEREIGN

While the loss of creditworthiness will not necessarily bring a debt crisis (although that is almost always the case²), any debt crisis will be preceded by the loss of creditworthiness. That is because, without creditworthiness, not only new loans, but also roll-overs of debt coming due are refused by creditors, and if a country has not enough resources of its own then it will have no option but to request a rescheduling and/or default. That is frequently the case, as a sovereign usually finances (at least partially) debt service with new debt (with roll-overs many times documented as “new” debt).

What causes that loss of creditworthiness? Why would creditors truncate their lending when they know that the most probable result will be default? The solvency constraint, equation (1.11), provides possible answers: 1) an increase in interest rates, 2) a fall in Q , considering it to be a function similar to (1.23), and/or 3) an increase in the debt accumulated by the country.

$$(1.11) \quad D_t \leq W_t, \text{ where } W_t = \sum_{T=t+1}^{\infty} \frac{Q_t}{(1+r)^{T-t}}$$

$$(1.23) \quad Q = f(E(Y, CAB, FB, NB))$$

It is important to emphasise that new borrowing is one of the variables that determines the value of Q . That is, the expectation of future lending is crucial in gaining (or losing) creditworthiness: creditors will lend more if they consider that, in the future, a country will face no problems servicing its debts –and debt is (at least partially) serviced with new debt. Thus, the expected future borrowing by the country is a crucial variable to explain the actual creditworthiness.

It is important to analyse the relationship between the different factors that may bring about a loss of creditworthiness, clearly distinguishing between those that are beyond the control of the government of the sovereign borrower and those that are within it.

2.1.1. FACTORS BEYOND THE CONTROL OF THE SOVEREIGN

International interest rates stand out as one of the factors that may bring about a loss of creditworthiness and that are beyond the control of the country. An increase may cause that loss if they have gone *above* the perceived rate of growth of Q (see equation 1.17) and *that* is considered to be a permanent phenomenon. If the increase is seen as temporary, lenders may well accommodate a bigger demand for loans from the sovereign.³ If recent history were anything to go by, lenders would always consider that interest rates will be, on average, inferior to the growth rate of Q (thus violating the solvency constraint).⁴

² As it will be mentioned later in Chapter, a prominent exception in the early 1980s is South Korea.

³ The demand for credit from the sovereign may well increase when interest rates go up instead of falling, as economic logic would imply, if the hike were also perceived to be temporary, as indeed was the case in the late 1970s and early 1980s. A sovereign will borrow, and lenders will satisfy that demand, to cushion the (perceived by both sides as temporary) shock.

⁴ Particularly the 1979-81 period, when interest rates reached historical highs (see Table C1), and lenders loosened the strings of their purses further (see Chapter 4 for details).

A similar thing may be said about a negative shock to the economy of the country. The plunge in the price of a key export or a natural disaster will deteriorate the perceived value of Q . If that affects the creditworthiness of the sovereign will also depend on its dimension and if it is considered to be permanent or temporary. Also beyond the control of the country are contagion effects. That is, the borrower has, for creditors, certain similarities (geographical, economic, political, etc.) to another country facing problems.⁵ That perception may affect new borrowing, thus deteriorating the value of Q .

2.1.2. FACTORS WITHIN THE CONTROL OF THE SOVEREIGN

However, the sovereign borrower can alter the other variables that constitute Q : the fiscal balance, current account balance and the evolution of GDP. Their management may even compensate, for example, a negative shock such as the plunge in the price of a key export or an increase in international interest rates (for example, through a devaluation of the domestic currency or a public expenditure cut), thus also reversing any diminished expectations on the future new borrowing capacity of the country. Thus, a fall in Q may or may not entail loss of creditworthiness. It will depend on its perceived duration, and on the reaction that the government has to compensate for it.

So, the government has partial influence on the right-hand side of equation 1.11. However, the left-hand side may also change, altered by the borrower. An unjustified (for lenders) increase in the rate of growth of debt by the sovereign may also bring about a loss of creditworthiness. Yet again, it also depends if that increase is considered to be transitory or permanent. In the latter case, the debt stock would grow explosively, as more debt was needed in the following period to cover the debt service for the accumulated stock. Creditors would then expect that there would not be in the future lenders willing to satisfy that whetted appetite for loans. That prospect will prompt the shutting of the capital markets.

Can the sovereign borrower increase the pace of its indebtedness without it being perceived by the lenders? Yes, because of the imperfect information that exists in the international capital markets. For example, it takes time for lenders to know the result of their aggregate efforts, moreover when loans are short-term.⁶ The imperfect information may also extend to other variables that constitute Q , as the government of the borrowing country can mislead lenders in order to obtain more resources than those that would otherwise be granted.⁷

What will be the reaction of lenders when they realise what is happening? If it is perceived as the result of a negative temporal shock, it may bring no change in their attitude. Other motives may also justify the increase in the indebtedness pace. For example, when a sudden investment opportunity springs, and the country acquires higher amounts of debt to exploit it. That is, indebtedness today would increase the future value of Q .⁸ However, if there is not a sensible⁹ motive to justify the increase, then creditors will balk at the request of more loans.

⁵ A good example of this situation during the 1980s debt crisis is Colombia.

⁶ See Chapter 4 for a detailed analysis on the matter.

⁷ For example, in the early 1990s the financial authorities of the now defunct Soviet Union hid from the Western bankers how much the gold reserves of the country had been depleted, in order to avoid a reduction in the availability of credit.

⁸ For example, as was the case of Mexico during the second half of the 1970s, the discovery of massive deposits of oil, that demanded huge investments in order to be exploited. With oil prices at extremely high historic levels, indebtedness was seen as a logical step. See Chapters 3 and 5 for details.

Unless a sovereign borrower suffers an unexpected, and huge, deterioration in its terms of trade, its government should be well aware when the possibility of problems to cover debt service is emerging. The government may react in many different ways to that situation. One is to increase its borrowing, to obtain resources to postpone the crisis (an increase in D), while another would be to implement an adjustment to confront the problem (to increase Q). Factors such as the magnitude of the imbalances in its external and fiscal accounts, and the diversity and flexibility of the economy would determine the adjustment needed. At the end of the day, even the latter course can scare creditors and bring about a loss of creditworthiness, but for certain the former would just usher a deeper crisis.

2.1.3. INDIVIDUAL CREDITORS AND THE LOSS OF CREDITWORTHINESS

At least in the short term, without new (and sufficient) borrowing it is impossible for a country to service its debts with its own resources. Why would then creditors just cut-off their lending instead of negotiating with the borrower, if they know that, almost certainly, their action will result in the need to reschedule, possibly preceded by default? After all, debt contracts make all creditors equally senior. Because in one aspect equality is impossible: the payments' schedule, that is, creditors are paid (or have the option to refinance their loan) only at a certain point in time. If and when creditors perceive debt servicing problems, they may refuse to extend any additional loans, or roll-over the ones due, in fear that those resources would end up with the *other* creditors that follow in the queue. With all joining the stampede out of the country, the chances of default increase. Default (or the request to reschedule) works similarly to a bankruptcy declaration of a firm that demands protection from its creditors under a code similar to the U.S. Chapter 11. As it happens with a private firm under a similar bankruptcy code, the haemorrhage of resources is stopped, the firm (sovereign) gets a respite, and the difference that creditors had in the timing of their payments is (at least temporarily) erased. Deliberately or not, through their individual actions, creditors equalise their conditions -and are pushed to co-ordinate their actions.

How much time it will take a sovereign to regain the creditworthiness lost? As many countries have experienced, it may be weeks or years. Precisely how lengthy is that period is a crucial factor that allows the categorisation of different debt crises. That will be discussed in section 2.4, with the particular objective of drawing a clear distinction between liquidity and structural debt crises. Before that, however, it is important to briefly analyse several of the most frequently used ways to gauge the creditworthiness of a sovereign borrower: external debt indicators. The following section analyses their features and usefulness (or lack of).

⁹ Sensible, of course, to the eyes of lenders.

2.2. GAUGES OF CREDITWORTHINESS? A LOOK AT DEBT INDICATORS

As analysed in Chapter 1, exports or GDP are not good proxies of Q . Nevertheless, both are usually contrasted against external debt. In the most comprehensive yearly assemblage of external debt statistics of LDCs, the *World Debt Tables*¹⁰, the World Bank provides a set of 10 debt indicators, and in all the four considered the most relevant, exports or GDP is the denominator. Although used extensively, particularly during the debt crisis, most have severe shortcomings, and many times are completely useless, in the aim of providing hints whether the external debt burden “hampers their efforts to pursue a sensible, growth-oriented policy” (World Bank 1989b, 50):

1) **Debt/Exports.** A first problem is that the interest rate level, that will determine the value of debt service, has no effect on the indicator. However, the weightiest flaw is that exports are not a proxy for the amount of foreign exchange available to the country. Much more precise is the trade account balance. Why it is not used? Because the trade balance of many LDCs (and even industrialised nations) is frequently in *deficit*. That flaw of exports in the debt/exports ratio is naturally extended to any other indicators that include that variable. Only with a perfectly predictable future, creditors would know if -in the long term- a country would run the necessary trade or current account surpluses to pay-off its debts.

2) **Debt/GDP.** A severe problem with this indicator is that both variables are not denominated in the same values: the external debt is usually presented in dollars or other internationally accepted currency; GDP is denominated in the respective domestic currency. Erratic movements in the real exchange rate, not uncommon for many LDCs, radically change the value of the indicator, rendering it useless.¹¹ Moreover, the indicator only provides a snapshot of the weight of the debt with respect the size of the economy, but says nothing of the burden of the debt service.

3) **Interest Payments/Exports.** Cline (1995, 50) considers that this is, perhaps, the best indicator of the relative debt burden. It captures the price of the debt (through the interest rate) and its magnitude. The only problem is the one already pointed out about exports.

4) **Debt Service/Exports.** This indicator is even better, as it also captures the information on amortisation payments, which may be of vast magnitude in certain periods. However, it is not commonly used as interest payments/exports because the necessary information is not readily available.

5) **Interest Payments/GDP.** A similar problem to the one mentioned for debt/GDP is present, as interest payments are denominated in hard currencies, and GDP in the respective domestic currency. The indicator that compares interest payments to exports is superior.

6) **International Reserves/Debt.** International reserves have a problem similar to that of exports. While exports need to be counterweighted with imports to really gauge their usefulness to cover debt

¹⁰ This publication would change its name from 1997, to be called *Global Development Finance*.

¹¹ An extreme case alluded to by Cline (1995, 45-46), the dramatic drop experienced by the debt/GDP ratio for Argentina from a peak of 118 percent in 1989 to 40 percent in 1993, reflected a reversal of a severely undervalued exchange rate in 1989.

payments, also international reserves are used for many other purposes other than debt servicing, such as financing foreign trade or sustaining an exchange rate policy.

7) **International Reserves/Imports.** The variables that are contrasted precisely point out to one of the main functions of international reserves, but say nothing about debt payment capability.

8) **Short Term Debt/Debt.** An important indicator. The amount of short-term debt on its own represents an important piece of information (although not always available).

To the shortcomings outlined above, the World Bank (1989, 50-51) add two additional limitations. First, the indicators present the debt situation in a particular period of time (usually a year), and the period for which the variables are measured may not be representative. Second, a point also made by McDonald (1982, 630), the ratios are static: they attempt to measure the *current* probability of any difficulties, not a future probability.¹² Adding to all those limitations, the difficulty in using debt indicators to determine the burden that the external debt represents for any economy is reflected in Table 2.1, where the contrast in the criteria presented by different studies is evident.

Table 2.1. External Debt Burden Indicators

Definition / Indicator	Debt/GDP	Debt/Exp. Moderately Indebted ^a	Service/Exp.	Interests/Exp.
World Bank	30-50%	165-275%	18-30%	12-20%
Klein-Verbeek	18-80%	132-220%	n.a.	n.a.
Severely Indebted ^b				
World Bank ^c	50%+	275%+	30%+	20%+
Klein-Verbeek	80%+	220%+	n.a.	n.a.
Cline	n.a.	200%+	n.a.	15%+

a. Defined as countries in which values for three of the four indicators fall in the ranges.

b. Defined as countries in which values for three of the four indicators are above the critical levels.

c. The World Bank classifies a country as heavily indebted only when three out of the four key indicators are above the critical values, considering that the combination reduces the biases and measurement problems inherent in the reliance on a single indicator. Because three out of four critical values are needed, an anomalously low value for one ratio does not exclude a HIC from being identified as such. If the required number of ratios above the critical value were lowered to two, countries with high debt/export and debt/GDP ratios, but with highly concessional debt -which represents much less of an actual burden- could be erroneously called debt burdened.

Sources: World Bank (1989b, 49, 51); Klein (1994, 128); Cline (1995, 5-6).

¹² And not even the current one, but the one covered by the data that is currently available.

2.3. A CATEGORISATION OF DEBT CRISES

As Krugman (1985, 79) points out, if a HIC is truly only illiquid, why it is not able to borrow freely to cover its temporary shortfall? The point is that it is difficult to explain a liquidity crisis unless there is a real possibility that the debtor is truly insolvent. If the debtors are truly insolvent, however, why have their creditors been willing to continue increasing their exposure? Two possibilities mentioned by Krugman were that the creditors were waiting for (industrialised) governments to bail them out, or that they were willing to play for time, as there was a real possibility that normal debt service was eventually resumed.

Countries are fundamentally different from firms, and one of main differences is that they can't be declared as insolvent or bankrupt. Domestic and international laws prescribe provisions when a private business faces liquidity or solvency problems, with the responsibility of owners or shareholders, and the seniority of the different kind of creditors, clearly defined. On the other hand, a country is always there, with resources that in many occasions are not within the grasp of creditors (or even of domestic economic agents). And in charge of the sovereign's affairs there is a government that, at least in theory, is representative of its inhabitants and their interests - interests that may be opposed in certain times with those of external creditors. Another key difference regards the availability of (and access to) information on the debtor's situation. In many countries, legislation obliges businesses to (at least in a certain degree) open their books to the scrutiny of the public in general and creditors in particular.¹³ Similar information in the case of a sovereign is much less available, and when it exists many times it is not shared with creditors, precisely as an act of sovereignty.

It is not surprising that the usefulness of the liquidity and solvency concepts in the case of sovereign borrowers has been called into question. Swoboda (1985, 162) argues that the distinction is very difficult to make in practice. Eaton, Gersovitz, and Stiglitz (1986,) consider that those concepts are of little help in understanding problems of sovereign debt, as creditors do not have the means to seize the assets of a borrower in default. Hence the borrower's net worth is not relevant in determining the amount of a loan that can be recovered. However, when it is considered that sovereigns *are willing* to service their debts, the concepts of liquidity and solvency become relevant. However, considering that the term insolvency is certainly inaccurate to depict a non-liquidity debt crisis, it is instead denominated as a *structural* debt crisis.

2.3.1. LIQUIDITY DEBT CRISES

A liquidity crisis of a sovereign borrower is defined a temporal mismatch of its asset and liability flows (Solberg 1993, 13), and as a situation where a country with a positive net worth cannot convert the required portion of that worth into a means of payment (Eaton, Gersovitz, and Stiglitz, 484). Both definitions, applicable to private debtors, basically mean a cash-flow problem. In the sovereign's case, however, it is far from clear *what* assets are available for debt servicing. If there were no interrogation mark on that aspect, sovereign borrowing would be a much more straightforward matter.¹⁴ Another problem is that, even if some creditors are *sure* that the country is just facing a liquidity crisis, they may

¹³ And of course in some cases a private business will have in its Board of Directors a representative(s) of its main creditor(s), to ensure them that their interests are taken into account. A similar action by a government of a country would be unthinkable.

not be *certain* that all their peers share that opinion. Then the most prudent course for them is not to lend at all, as their resources may just allow other creditors to cash in their loans and pull out. If the country is then pushed into rescheduling, all creditors are then put into the same boat, and the crisis could be surpassed quickly. Another possibility to surmount a liquidity crisis is assistance by international financial institutions (IFIs) -particularly the International Monetary Fund and the Bank for International Settlements, from which emergency funding is available. When the problem is just a matter of liquidity, those organisations make the necessary funds (or at least part of them) available to close the gap¹⁵, ensuring a short-lived crisis.

Therefore, a liquidity crisis can be defined as a crisis that is short-lived, because a rescheduling of the debt and/or the support of an external agent (such as the IMF) is enough for the sovereign to regain its creditworthiness. It can be argued that IFIs provide resources in exchange for an adjustment programme. However, in a liquidity crisis the *compromise of future* adjustment (plus the money provided by IFIs) is enough for creditors –that don't need to wait for that adjustment effort to bear results.

2.3.2. STRUCTURAL DEBT CRISES

What about structural debt crises? Stretching the illiquidity conception of Solberg, it would be defined as a medium or even long-term mismatch between the asset and liability flows of a sovereign borrower. The illiquidity definition by Eaton, Gersovitz, and Stiglitz can also be applied to structural problems: a country with a positive net worth cannot convert the required portion of that worth into a means of payment even in the long term. The division between short-term and long-term is a blurred one, however.

A structural crisis has the same potential causes than a liquidity crisis. The obvious difference is the magnitude of the problem: rescheduling, and the support from an external agent, are not enough to defuse the crisis. At least one of the factors of the solvency constraint has to change radically to overcome the crisis. That is, 1) interest rates have to down markedly, 2) the debt stock has to go down (through a debt or debt service reduction), and/or 3) the economy has to develop a higher debt payment capacity (Q) through a harsh economic adjustment. An extreme case of a structural debt crisis would be the one presented by a country that, even with interest rates at very low levels (or even zero) is still in crisis (though naturally not a debt crisis anymore) because of the muddle of its economy.

An extreme version of an structural debt crisis was developed during the 1980s: the debt overhang hypothesis (DOH). That is, a situation where a sovereign has a debt that it is so big that increases in production and in exports are at least partly used for debt service, which gives rise to a disincentive effect. Therefore, the DOH does not describe a situation in which external debt is merely large, but one in which its existence distorts the relevant margins considered for production and investment decisions, thus bringing many potentially negative consequences: fall in private investment, capital flight, high real domestic interest rates, pressures on the exchange rate and, crucially, a disincentive for the government to adjust, thus providing support to the notion that debt forgiveness

¹⁴ In that case, the sovereign would have a credit ceiling that corresponded to the net present value of those assets.

could be in some cases beneficial to *both* HIC and its creditors.¹⁶ However, the evidence of several empirical analyses concluded that the investment-depressant effect of a debt overhang was minimal; the debt had to be exceptionally large to have a distortive effect.¹⁷

A country facing a structural debt crisis, debt overhang or not, will only be able to obtain new loans through direct negotiations with its creditors, as the capital markets are closed to it. Under what kind of framework those negotiations take place? To define it is the purpose of the following section.

¹⁵ As it will be detailed in Chapter 4, right or wrongly private creditors of sovereign borrowers considered that those institutions made their trade less risky.

¹⁶ The seminal articles on the debt overhang notion were written by Sachs (1989c) and Krugman (1989). See Cline (1995, 222-228) for the intellectual evolution of the debt forgiveness notion as an option to surmount the debt crisis and Krugman (1989, XX) for what became a widespread way to represent the DOH: the Debt-Relief Laffer Curve (DRLC).

¹⁷ For Claessens (1990) the "turning point" of the DRLC tended to be in the range of 700 to 900 percent for the debt/exports ratio. Cline (1995, 163n.24) estimates that the DRLC turns down at least when the debt/GDP ratio is around 200 percent. A model by Borenztein (1990, 325) concluded that for country to be on the wrong side of the DRLC only when debt service involves a very significant fraction of GDP (a debt service burden equivalent to 50 percent of the tradable sector). A summary of their findings is presented by Cline (1995, 182-183). In a comprehensive coverage of the DRLC implications, Cline (1995, 162-165) surveys several econometric models,

2.4. THE INDEBTEDNESS PROCESS UNDER A DEBT CRISIS

The external indebtedness process that a country follows when facing a debt crisis involves many factors. Simplification is imperative to construct a framework to study what was the relationship between HICs that fell into debt crises during the 1980s and their respective creditors.¹⁸

2.4.1. ASSUMPTIONS ON THE DEBTOR-CREDITOR RELATIONSHIP

A crucial, but quite realistic, assumption will be that a debtor is always *willing* (though obviously not necessarily *capable*) to service its debts as originally agreed.¹⁹ Thus, even if it defaults, there is always the *will* to resume debt service; there is never a unilateral action to reduce the debt stock or its service –even less any repudiation action. Debt repudiation (albeit following different definitions²⁰) is an important issue in the contemporary debt literature.²¹ However, since Cuba and Ghana in the 1960s²², no major borrowing country has repudiated its external debt (Bell and Heimann 1982, 43). As Folkerts-Landau (1985, 317-318) points out, outright default was replaced by rescheduling.²³ Even if since the 1970s many LDCs have defaulted (and many accumulated substantial arrears), the willingness to pay has rarely been called into question. That was undoubtedly the case of Mexico and virtually all HICs in the 1980s. And that willingness was common knowledge to all parties involved in the process. As Cline (1995, 47) has masterfully put it, the behaviour of many sovereign debtors has been closer to the honouring of full debt subject to payment capacity, rather than optimal wriggling out of obligations subject to penalties.

Any interruption in the debt service by the sovereign was seen, thus, as temporary. The most radical posture adopted by a HIC during the 1980s was that of Peru in July 1985, when the incoming administration of Alan García capped debt service payments to a fixed fraction (10 percent) of exports (a strategy that was abandoned as soon as the government changed in 1990). Brazil declared a moratorium in 1987, but as a negotiating tactic, and was also temporary.²⁴ On the contrary, countries that had been able to do so have followed exactly the opposite direction. South Korea, with a high external debt at the beginning of the 1980s, chose an aggressive programme of repayment rather than default (Cline 1995, 141). During the 1980s Chile implemented an extensive debt/equity swap programme to reduce its debt stock.

¹⁸ This should not be understood as a snub to the abundant theoretical analyses and contributions that, on the topic of the international debt crisis, flourished during the 1980s and 1990s.

¹⁹ Two comprehensive surveys that include analyses where the willingness to service the debt is an issue are those by Eaton, Gersovitz, and Stiglitz (1986), and Eaton and Fernandez (1995).

²⁰ Several studies, such as Eaton and Gersovitz (1981a, 2) and Sachs (1984, 17) follow a definition of “debt repudiation” that is somewhat similar to that of a default, with no outright rejection of debt contracts. A brief survey of several articles on the issue of sovereign debt default and repudiation is presented by Nunnenkamp (1990, 560-561).

²¹ For example Eaton and Gersovitz (1981a and 1981b), Enders and Mattione (1984), Kaletsky (1985), Krugman (1985), Cohen and Sachs (1986), Eaton, Gersovitz, and Stiglitz (1986), Grossman and Van Huyck (1988), Calvo (1989), and Eichengreen and Portes (1989). Possibly the previous experience of defaults by sovereign borrowers during the 1930s, added to the harshness and the prolonged span of the international debt crisis during the 1980s, motivated the vast exploration of that issue, that at the end had no applicable implications.

²² The Ghanaian government that repudiated the debt was overthrown in 1966; a new government reached an agreement with the IMF in 1967. Up to the end of the 1990s, Cuba has still not settled the issue (among others) of the debt it repudiated.

²³ This issue will be explored in detail in Chapter 4.

²⁴ During the García regime the Peruvian debt certainly became financially non-performing, but was never repudiated. See the volumes edited by Sachs (1989a) and Griffith-Jones (1988) for several country studies. For the specific case of Peru see Lagos (1989).

The avoidance of repudiation is explained not only by the fear of furious creditors attempting to seize the debtor's assets, but also by the aim to preserve (or eventually regain) access to the capital markets. Even if merely as a self-survival strategy, but willingness to pay is always present. The aim of a country is to recuperate its creditworthiness, and with it be able to return to the typical cycle of any sovereign borrower, where debt is (at least partially) serviced with more debt, with the country many times being able to obtain a positive net transfer of resources. With willingness to pay, it can also be assumed that confrontations in the debtor-creditors relationship are not an issue either, as indeed it was in previous debt crises.²⁵

On the other hand, creditors are *also* willing to negotiate. While *one* creditor could not profitably protect its loans by lending until the country resumed normal debt service, while *all* acting together could do so (Gersovitz 1985, 63; Dornbusch 1988a,), In most cases, the HIC facing a debt crisis needs funding to avoid default, and it is necessary for all creditors -or at least the most important- to group, and pool their contributions to close that gap. Thus, both sides are willing to sit down at the negotiating table, what kind of framework will the indebtedness process follow?

2.4.2. BILATERAL MONOPOLY FRAMEWORKS

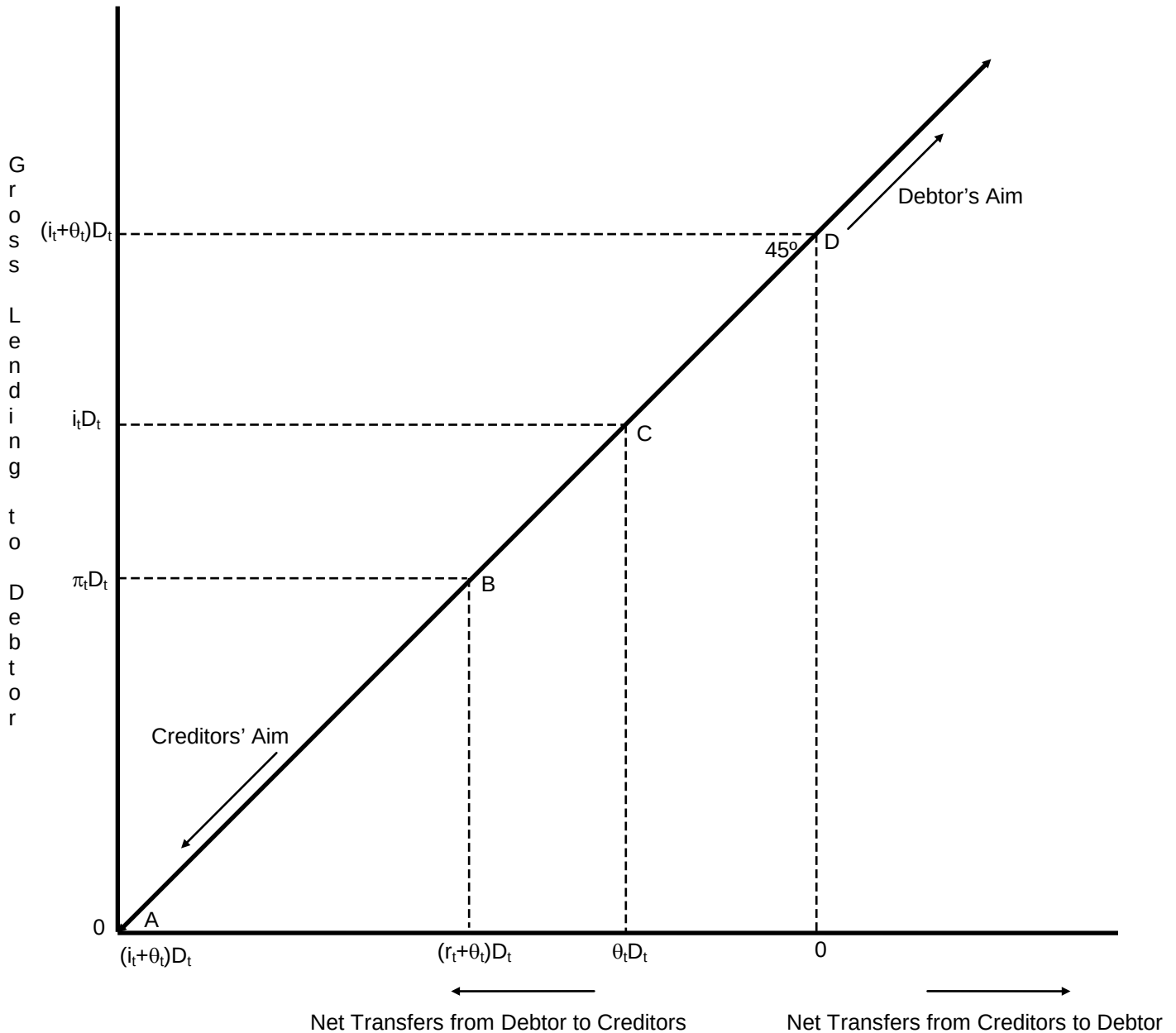
For sovereign borrowers, there is nothing near to a sort of U.S. Chapter 11 legislation, which outlines provisions to "protect" a firm from its creditors during a crisis. Therefore, this kind of action has first to be requested by the country to its creditors, or in any case the sovereign can impose it unilaterally with a declaration of default. Otherwise, creditors will demand the scheduled payment. If the country needs a span of time to adjust (as a private firm under Chapter 11) there is no option but to negotiate it with its creditors –or even impose it.²⁶ As Eaton (1993, 159) points out, a creditor has four basic options when confronting such a situation: 1) declare the borrower in default and seek legal remedy; 2) lend the difference (which would take the form of rescheduling, tolerating arrears, or providing "new money"); 3) forgive the difference; or 4) find another creditor to lend the difference.²⁷ At least in the short-term, creditors are not willing to forgive the difference. IFIs such as the IMF or the BIS may be willing to enter the fray, but not to "bail out" creditors, but to help the country. In a crisis is virtually impossible to find another private lender to provide that difference, so the existing creditors have no option but to present a common front to negotiate.

If creditors manage to co-ordinate to negotiate as a single entity with the HIC, then the determination of the amount of credit (and its price) will take place outside of a competitive environment. The sovereign borrower and the creditors' cartel or group will then act in a framework of a bilateral monopoly; both will negotiate to administratively decide the outcome, and that result will depend on the negotiating power of the two parties (Figure 2.1).

²⁵ Confrontations that many times brought about the infamous "gun-boat diplomacy".

²⁶ That is possible, and was indeed the case of Mexico in August 1982 (see Chapter 6): the default was officially negotiated with the most important creditors, but in reality had been presented to them as a *fait accompli*.

²⁷ An IFI or a government may jump into the fray as a lender-of-last-resort, but there are no rules on that matter, and that possibility cannot be taken for granted.

Figure 2.1. A Framework of Bilateral Monopoly for Quantity (Loan Amount) Determination between Creditors and a Sovereign Debtor in Crisis²⁸

Where i is the nominal international interest rate; r the real international interest rate, and θ represents the fraction of the debt due during the period, ($0 \leq \theta \leq 1$). Simplifying, if $\theta = 0$, we have that:

- At A the debt stock will be constant in nominal terms (and falling in real terms);
- At B the debt stock will be constant in real terms; at any point between B and A it will fall in real terms (and tend to zero when time goes to infinity). Beyond B, it grows in real terms;
- C and D are the same when $\theta = 0$: the debt stock grows at the same pace than the nominal interest rate; and the real stock at the same pace as the real rate.

²⁸ This framework does not occur when the country is creditworthy in the international capital markets because creditors are fragmented, and the indebtedness process takes place in an environment of imperfect competition.

While creditors would prefer point A, or any point between A and B, the sovereign borrower would prefer to be in C, D when $\theta > 0$, or beyond, making no net transfers to creditors or even receiving net lending from them. The final outcome during each period will depend on their negotiating power.²⁹

What would be on average (for example for a medium-term agreement) the position of creditors in a situation of uncertainty about the debt payment capacity of the country or, worse, a structural crisis? Their ideal point would be A, that is, receiving a net transfer of resources equivalent to the full interest and amortisation payments due during the period. The debt would be falling in nominal terms by the amount due in principal payments in each period. Failing that, any point along A-B (as near to A as possible), where they would be receiving a net transfer *and* the debt stock is falling in real terms (thus tending to zero in the long run). Failing that, any point along B-C: still a net transfer is being received, although the debt grows in real terms, the country covers the amortisation due and part of the interests, and so forth. What creditors would flatly refuse would be to settle for an agreement at D or beyond, D being a refinancing of the whole of interest and amortisation payments (with the debt growing along with the nominal interest rate), and a zero transfer from the debtor.³⁰ Between A and D, any money that the creditors' cartel officially agrees to *lend* may not even leave their vaults: it will nominally come back as part of the debt service.

What about the country immersed in a debt crisis? The ideal point would be naturally beyond D –receiving a net transfer of resources (the usual when it was creditworthy). Failing that, any point between A and D, but as near to D as possible. That is, financing the maximum fraction possible of debt service with resources from its creditors. Naturally, it would flatly refuse to accept a settlement on A.³¹

There is, consequently, a potential area of agreement between the two parties. Figure 2.1 presents a framework where both parties determine the amount to be borrowed, where the outcome will depend on the strength of each one of sovereign debtor, on one side, and the creditors' cartel, on the other. Unless the negotiating power of the country is very big and it can get the negotiation process to a point such as the one represented by D (or beyond) in Figure 2.1, it will need to finance the debt service due, at least partially, with its own resources.

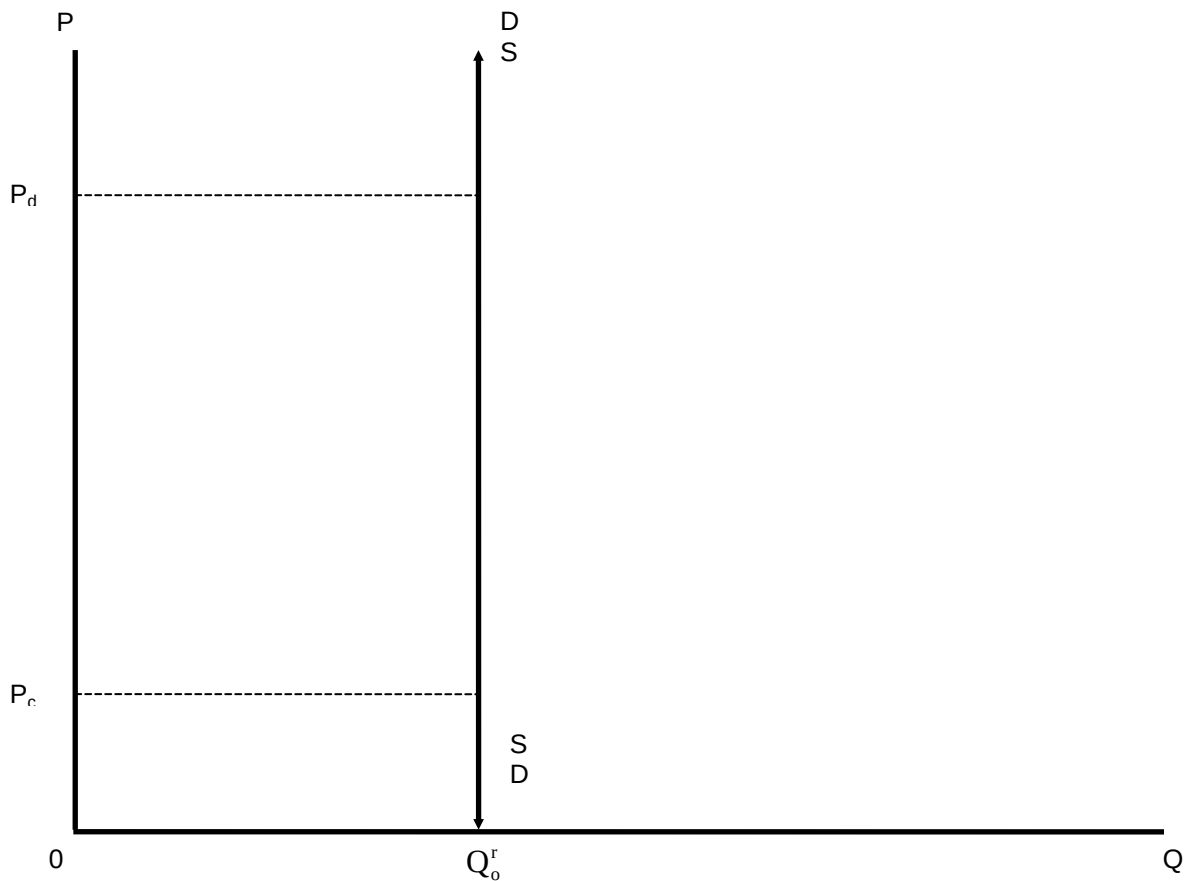
What about the price? What would be the interest rate that will be agreed between the creditors' cartel and the sovereign borrower? As was the case of the amount of the loan, it cannot be determined in a (imperfect) competitive environment such as the one that prevailed when the country was considered to be creditworthy. It has also to be resolved in a bilateral monopoly framework, such as the one devised by Devlin (1989, 208-213), and reproduced in Figure 2.2. As floating interest rates were the norm during the second half of the 1970s and the 1980s, the real issue to be determined would be the spread above the floating rate (usually LIBOR).

²⁹ Naturally, the country would even pay more than the debt service to its creditors (a point below A), adding advance payments to the scheduled debt service, but that would not be expected from a country suffering a crisis.

³⁰ Arguably, creditors would agree to settle for a point such as D or even beyond, but only for a short period of time, expecting moving towards A in future periods, and on average being always between A and D.

³¹ On average at least. If it considers it to be in its interests, a country may try to fully cover its debt service with its own resources. However, if the prospect in the long-term was to stay in A, indeed in any point between A and D, the country could probably prefer to default or even to repudiate its debts.

Figure 2.2. A Framework of Bilateral Monopoly for Price (Spread) Determination between Creditors and a Sovereign Debtor in Crisis



Source: Devlin (1989, 211)

Where P_d is the maximum spread that the sovereign would be willing to pay for the rescheduled debt and/or new loans to avoid default.³² P_c is the minimum spread acceptable to the creditors' cartel to avoid default from the borrower³³ Q_0^r the amount of the credit agreed under the framework of Figure 2.3, S is the supply schedule and D the demand schedule.

What would be the most important issue under negotiation for creditors and debtor, quantity or price? By far, the former –a notion supported by the negotiation rounds that took place between HICs and their creditors during the 1980s international debt crisis. 100 basis points, for example, is an enormous difference in terms of spread (see Chapter 4), but a low price for a HIC that has to follow a draconian adjustment, with no access to the capital markets, and a debt that has to be serviced. 100 basis points does not make a big difference for creditors either. They would prefer not to lend anything at all, but they do so to pull away the debtor from default. A higher spread is a sweetener, not an incentive to provide a bigger loan.

³² A new spread was negotiated for the debt that was rescheduled, and an even higher one for any new loans.

2.5. CONCLUSIONS

2.5.1. The Loss of Creditworthiness by a Sovereign

Many causes may explain the loss of the creditworthiness status enjoyed by a sovereign borrower among external creditors. However, lenders many times may brush aside negative shocks that may diminish the value of a sovereign's Q because they are considered to be temporary. An increase in interest rates or a deterioration in the terms of trade, then, not necessarily brings about a curtailment of the access that the country has to the international capital markets. Naturally, such negative events are outside the control of the borrower country. But even when a negative shock is such that it has the potential of affecting the creditworthiness status of the country, its government can counterbalance that shock by adopting policies that will increase the value of Q , such as reducing its current account deficit through a devaluation or its level of absorption by reducing the fiscal deficit.

However, an important factor that explains the loss of creditworthiness is that the sovereign abuses of those capital markets, increasing its pace of indebtedness markedly and beyond any reasonable explanation (reasonable to the perspective of creditors, that is). The imperfect competition that prevails in those markets leaves ample leeway for a country to do that if it so wishes, at least in the short-term (at least several months). Somewhat ironically, it is the abuse of the creditworthiness enjoyed which may explain its loss, as it breaks one of the fundamental links in the chain that kept lenders providing resources: the expectation that in the future other lenders would also provide loans, thus funding the refinancing of the debt. Theoretically speaking at least, were lenders not deterred by that jump in the indebtedness pace, a country would continue accumulating debt without neither losing its creditworthiness nor falling into a debt crisis. As a pyramid scheme would in theory go on forever if it was always capable to find new (or the same) investors to keep entering into the arrangement, or as a country that would suffer no inflation if an excessive supply of money was always met by a matching demand. However, expectations of creditors *do* change when they perceive a relevant (and inexplicable) alteration in the indebtedness pace, and rightly expect that sooner or later it will be impossible for the country to find those disposed to lend to it. It may be argued that such behaviour by a borrower country flies in the face of rationality, but it is nevertheless one of the main explanations why some countries have lost their creditworthiness.³⁴

2.5.2. Creditors' Behaviour, Creditworthiness and Default

When confronted by a negative change in Q (for whatever of the several reasons that may cause the change) creditors many times panic, by refusing to lend any more to the country. Even when the crisis seems a minor one (i.e. of the liquidity type) the sovereign may well be pushed to adopt a radical action (such as default) because of the closure of the capital markets to its requests (having lost its creditworthiness). Only a co-ordinated action by its creditors (or at least the most important ones) would avoid it. However, even when the debt contracts have granted them equality in many aspects (regardless of their exposure to the country) there is a factor that differentiates them, and pushes each

³⁴ It was assumed that a country would always be willing to service its debts. However, the threat to default is obviously a powerful bargaining weapon.

individual creditor not to try to co-ordinate with others, but to pull out: the payments' schedule. That is, the point in time when the creditor has the right to liquidate its exposure (or renovate it). When in doubt about the prospects of the country, a creditor will opt for the former, under the consideration that otherwise that money will be used to pay the next creditor in the queue. The lack of a legislation such as the U.S. Chapter 11 incentives this kind of behaviour. However, if the country defaults (or requests a rescheduling) a similar result will be obtained: all creditors will be then fully equal, and will then have the incentive to co-ordinate and negotiate.

2.5.3. Debt Ratios and their Usefulness

The most popular debt ratios are usually based on a wrong assumption: that a country will finance its debt service (or an important fraction of it) with its own resources, such as foreign currency obtained from a surplus in its trade account or through a fraction of its national product. When a country is creditworthy, that is not the case, as debt service is at least partially financed with more debt. Even when a country is suffering a debt crisis, those ratios suffer from other problems, such as comparing a variable denominated in foreign currency (i.e. dollars) with one presented in the domestic currency (i.e. pesos). Several of the traditional, and most popular, debt indicators, should not be used at all, or at least they should not receive the importance and attention that actually they have. Other indicators are needed to gauge if a sovereign faces the possibility of suffering problems in its indebtedness process.³⁵

2.5.4. Liquidity and Structural Debt Crises

A sovereign cannot go bankrupt, at least in the sense understood for a private firm, which can simply disappear while distributing to its creditors all its assets (that may not be enough to cover its liabilities). However, it can also be ascertained that a country may face a crisis much more profound than a liquidity problem. Although perhaps not the ideal term, it can be classified as a structural crisis, as the term insolvency is certainly inadequate when dealing with a sovereign borrower. The line dividing the two is the effort needed by the government of the country to overcome that crisis and the time it takes to achieve it.

When facing a liquidity crisis, the country in question can overcome it in weeks or, at most, months. The help of institutions such as the IMF and the BIS may be necessary. A country may fall into a liquidity crisis even when its economic fundamentals are sound, for example because of a contagion effect. In that case, for example, the only element of Q that has worsened is the expected new borrowing, but that may be enough to diminish or even vanish the "normal" flow of credits, and may well push the sovereign into the need to reschedule its debts. However, a country with a structural problem *does not* have sound economic fundamentals. The cut in debt flows merely aggravates a precarious situation. A rescheduling is imperative, even when debt flows were at "normal" levels. That may be explained because the country, faced with a deteriorating Q (such as an explosive fiscal or external deficit), chose to borrow also explosively, abusing of its access to the capital markets, instead of adjusting. In extreme cases of economic mismanagement, even if the debt (or its service) were zero the

³⁴ The case of Mexico will be studied in Chapters 3, 5 and 6.

³⁵ Those indicators are developed based on the Mexican experience and presented in Chapter 7.

HIC would in any case need to adjust. Thus, even with the help of medium-term loans from institutions such as the IMF and the World Bank³⁶, and “involuntary” loans from its creditors (see below), adjustment will take time (i.e. at least one year) to bear fruits.

2.5.5. The Indebtedness Process by a HIC

When a country falls into a debt crisis, creditors will only be willing to lend more to avoid default, filling the gap that the country faces in its need of resources to finance its debt service. Negotiations, thus, take place outside a competitive environment. With creditors grouping because of the existing clauses in the debt contracts and also in order to avoid the existence of free riders (those that receive their corresponding debt service without extending any additional loan), those negotiations, to determine the amount of any loans and their price, take place under a bilateral monopoly framework. Any pretension to have a market-based guidance for those negotiations is, thus, flawed.

³⁶ Loans from the BIS are only short-term.

CHAPTER 3

MEXICAN ECONOMIC POLICY AND EXTERNAL INDEBTEDNESS

3.0. INTRODUCTION

For more than 25 years, since mid-1973, external debt –its abundance or scarcity- has played a fundamental role in the Mexican economy. While in several periods huge flows of external savings were used to sustain the development strategy, in others the country was completely left out from the international capital markets, and forced to follow a harsh adjustment to adapt to that shortage. The main objective of the present chapter is to study the relationship between economic policy and external indebtedness. The approach will be strictly chronological. However, history will be sliced depending on the role played by external debt, thus presenting a different division to that traditional in many other studies.¹ To avoid a continuous jumping from the economic strategy followed during a certain period to the external indebtedness process during the same interval, this chapter will concentrate on the former, Chapter 5 will deal in detail with the latter.²

Mexico -entangled with external debt- became a fashionable topic of analysis after it virtually defaulted and, in August 1982, started what would be known as the international debt crisis. That moment became a typical entrance for many of the numerous articles that were to be written on the topic. The events that preceded that crisis are far from constituting a mystery, but a profound analysis of its causes does not exist. Some years later, again Mexico would call back the attention of academic circles, among many others, when its economy went virtually overnight into a financial collapse at the end of 1994, with debt again in the forefront. Interestingly enough, Mexico had been hailed until virtually that moment as an example to follow in the road of economic orthodoxy, and as yet there is no agreement on the causes of the 1994-95 crisis. Those are the two episodes that have attracted the most attention. The chapter will not only deal with the economic strategy that preceded both of them, but with the whole of the economic history of the country where external debt (and the lack of it) has played a prime role, spanning from 1973 to 1994. Therefore, the main merits of the chapter may rest on the fact that it provides a detailed economic history of the period, emphasising always the role played by external debt, thus explaining why the recourse to debt took place in certain periods, and also what strategy was followed when that recourse did not exist at all.

As a necessary preface, Section 3.1 covers the 1954-72 period, known as the Stabilising Development (SD) epoch. The beginning of SD also coincides with a period where the external debt of Mexico is historically low. Section 3.2 analyses the first years of the so-called Shared Development strategy, also known as the period of Mexican Economic Populism (MEP). MEP spans a decade, with a relatively brief interregnum in 1977-78, when the economy was under the supervision of the IMF. Section 3.3 deals with that intermediate period, while section 3.4 retakes the MEP period, which ends abruptly with a major economic crisis in 1982. The adjustment years that follow, 1983-89, are covered by the following section, with 3.6 studying the 1990-93 period, and 3.7 concentrating on a single year, 1994, to study the causes that explain the crisis that erupted at the end of that year.

¹ Typically, Mexican economic history is divided along political lines, following the six-year presidential periods.

² Chapter 4 studies in depth the supply-side side of the indebtedness process: the international capital markets and their evolution from the 1960s to the mid-1990s.

3.1. STABILISING DEVELOPMENT, 1954-72

An unexpected peso devaluation in April 1954 is generally marked as the beginning of SD.³ During 1954-72, GDP growth averaged 7.0 percent and inflation 3.9 percent (see Table A1). Compared to the bumpy road the economy had followed before SD (Cárdenas 1994; 1997, 23-55), and even more when stacked up against the years that would follow it, it is not surprising that SD is seen by many as a golden age. The central plank of SD was the commitment to prudent macroeconomic management. Fiscal and monetary policies were co-ordinated in a fashion consistent with the goals of price and exchange rate stability. PSBR averaged 0.7 percent of GDP in 1954-64 (Aspe 1993, 75-76), and 2.3 percent in 1965-72 (1.9 percent excluding 1972, see Table A3). As the government imposed high reserve ratios on the banking system, domestic savings became an important source of non-inflationary financing (see Table A2). From 1958 the financial deepening phenomenon is unbroken as real interest rates were kept at positive levels. The general criterion was that Mexican interest rates should be at least 2-4% above international ones (Izquierdo 1995, 94-95).

State-owned enterprises (SOEs) were, on the other hand, a source of fiscal pressure. Several key prices were left virtually untouched, to avoid both political costs and inflationary pressures (Izquierdo 1995, 84-88). For example, the prices of gasoline and diesel were unmoved from 1959 until late 1973, and they were far from being alone in their immobility. Moreover, profit maximisation was considered anathema for SOEs, whose priority was to seek the maximum benefits for the population (by supplementing their incomes with cheap goods and services). This rationale preceded SD, but became strongly entrenched in the government.⁴ While inflation was low during SD, it was far from zero, and many public prices were eroded considerably in real terms (see Tables A29 and A30). Direct transfers from the government were needed to keep many SOEs operating. Particularly from the mid-1960s, foreign loans became a common instrument to finance investments by SOEs.⁵

The interests of the government and the private sector were strongly intertwined. Pressure from the private sector aborted attempts to implement substantial tax reforms time and again. Thus, tax revenues were relatively low and increased slowly, from 6.2 percent of GDP in 1959 to 8.2 percent in 1970. Therefore, the fiscal deficit was kept under control through the restraint of public expenditure.⁶ Additionally, the government acted as a last-resort buyer for any important business venture that went sour. Typically, the main development bank, Nacional Financiera (Nafinsa), invested resources in a starting enterprise, as a minority shareholder. If successful, Nafinsa reduced its participation to a symbolic amount. If bankruptcy loomed, the other (private) shareholders "requested" Nafinsa to buy from them and take over. The government acquiesced basically to save jobs.⁷ In the words of Finance Secretary, Ortiz Mena:

³ Izquierdo (1995) presents a detailed account and an impressive array of statistics on the SD period. Buffie (1989, 398-417) presents a summarised account and evaluation. For a description by one of its main architects see Ortiz Mena (1970, 1998).

⁴ For example, in 1954 president Ruiz Cortines said that "the role of Pemex is not one of profit but of social service" (quote in Riding 1987, 170).

⁵ As it has been pointed out, Chapter 5 will deal in detail with the external indebtedness by the Mexican government, with the present chapter focusing on economic policy and its relation with foreign borrowing.

⁶ See Buffie (1989, 400-407); Izquierdo (1995, 66-78, 95-97) and Cárdenas (1996, 61-66) for details on the relationship between the public and private sectors.

⁷ For example, by 1961 Nafinsa had provided loans to 533 enterprises; it was a minority shareholder in 29 of them, and majority or whole owner in 12: a fertilisers producer, two steel mills, two paper producers, two textiles factories, two sugar mills, two wood

... But there are other enterprises promoted by private capital that because they had not been successful, Nacional Financiera *has had to take them, develop them, and make them prosper*. Why? Because Nacional Financiera *cannot allow* a source of employment that may have a *beneficial development* for the country to close (Ortiz Mena 1965, 66, emphasis added).

Another strategy that favoured the private sector biggest players was the so-called “Mexicanisation” of companies wholly or partially owned by foreign capital. A softer term than “nationalisation”, it aimed to transfer ownership to Mexican private capital. However, its scarcity many times pushed the government to invest along. Careful negotiations took place to avoid the wrath of foreign investors or any souring of the investment environment.⁸ Nonetheless, evidently attracting foreign direct investment was not a top priority. The view was that external borrowing offered far greater advantages, as a loan would eventually be repaid, with the investment financed with it in public hands, while anything developed through FDI would stay in foreign hands, while sending profits abroad.⁹ Loans from other governments or international organisations were preferred, followed by borrowing from private sources, with FDI in third place.¹⁰ Not surprisingly, FDI played a diminishing role through the SD period while external public indebtedness became increasingly important, growing along with the external accounts’ deficit during the second half of the 1960s (Figures 3.1 and 3.2). Internal debt played a fundamental part in public financing after 1963 (see Tables B22 and B23).

At least at a purely rhetorical level, the Stabilising Development strategy was officially over when Luis Echeverría started his administration in December 1970. It was argued that SD had done too little to improve income distribution. The 1968 student riots were considered as a fundamental example of popular rejection to the economic strategy, a view strongly shared by Echeverría. Instead a strategy of “Shared Development” was to be pursued. But even if the rhetoric changed, orthodoxy continued during 1971. Contractionary policies were applied to reduce the external imbalances, which had increased markedly during 1970 (Newell and Rubio 1984, 132; Figure 3.2).¹¹ That objective was attained, but real GDP growth slowed down to 4.2%, the lowest figure since 1959 (see Table A1). The government panicked, the slackening strengthening the hand of those pushing for an expansionary programme. The collapse of the Bretton Woods system, in August 1971 (Volcker and Gyohten 1992, 74-100) also added to the feeling that a change was imperative. During the first months of 1972 the real departure from SD took place.

mills, and a fish packaging plant. All but the fertilisers plant had been originally set up by private businessmen, and bought from them when threatened with bankruptcy (Ortiz Mena 1965, 66-67, 135).

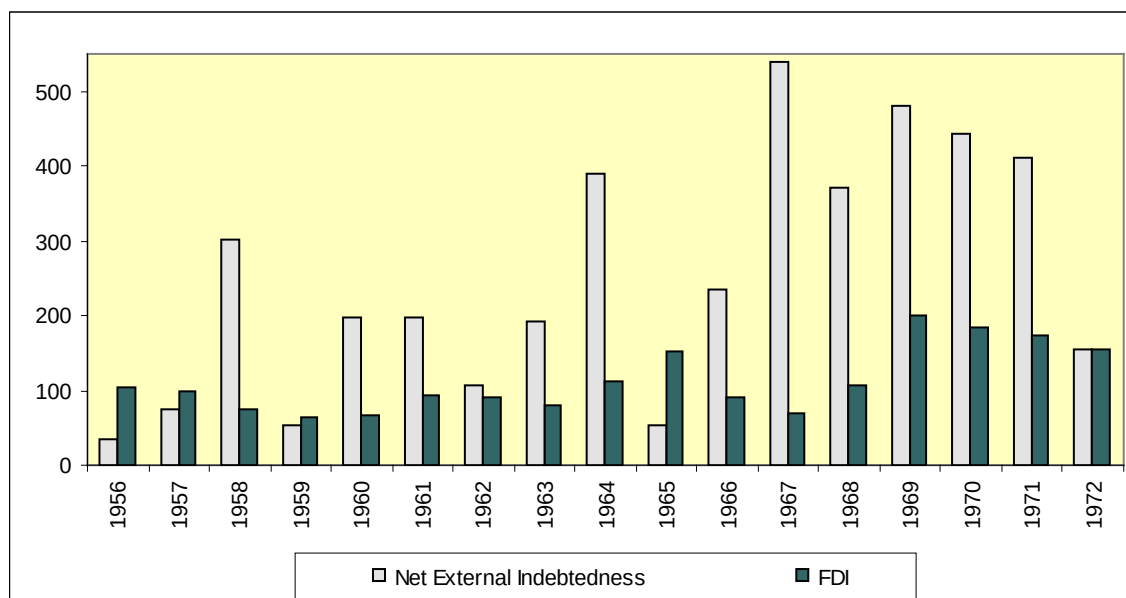
⁸ Izquierdo (1995, 109-119) provides a superb analysis of the “Mexicanisation” process.

⁹ Apparently the possibility that the investment financed with external debt would flop, while the country would have to continue paying the debt was not considered a serious possibility.

¹⁰ Ortiz Mena (1965, 135-136). Izquierdo (1995, 112) summarises that position, as expressed by President Díaz Ordaz in 1966.

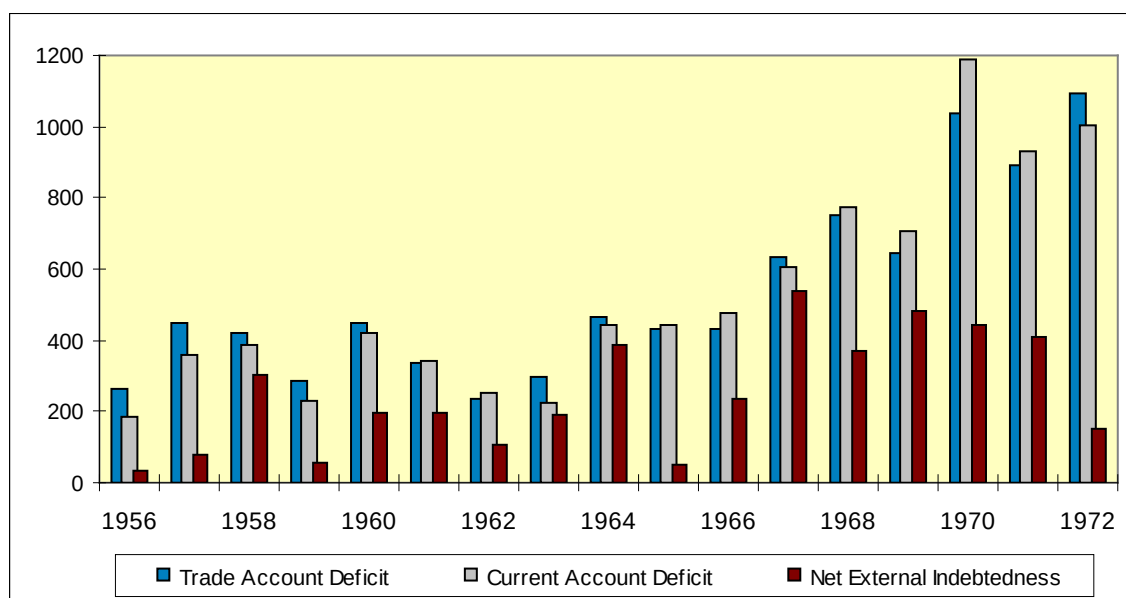
¹¹ Public spending experienced the standard slowdown associated with a change in government

Figure 3.1. External Debt and FDI, 1956-72
(million dollars)



a. Internal and external net indebtedness. For the sake of comparison, internal indebtedness is converted to dollars.
Source: Elaborated with data from Tables B1 and from INEGI (1990, 731-739).

Figure 3.2. External Accounts and Net Indebtedness, 1956-72
(million dollars)



Source: Elaborated with data from Tables A13, A14 and B1.

3.2. MEXICAN ECONOMIC POPULISM, 1972-82

While Shared Development was a term coined during the Echeverría administration (1970-76), several of its economic policies were to be continued by the following government of Jose López Portillo (1976-82). The term Mexican Economic Populism (MEP), following the seminal article by Dornbusch and Edwards (1990), has been adopted by several authors to cover the period.¹²

3.2.1. THE MEP RATIONALE

MEP was never summarised in a determined set of policies, as was the case of SD. Perhaps because it lacked a *éminence grise*¹³, or because a coherent economic strategy was never developed. However, its policies were influenced by the structuralist school,¹⁴ which postulates that inflation is not a monetary phenomenon, but a result of disequilibriums in the real sector. Inflation pressures usually initiate from a negative shock, either in the terms of trade or in an important productive sector (e.g. agriculture). Monetary policy reduces inflation only when it is so restrictive that it strangles growth. Therefore, a government has to choose between growth with inflation -while fighting it with increases in production- or stagnation with price stability. However, the proponents of MEP policies argued that they were, too, for low inflation and a stable exchange rate.¹⁵

MEP policies coincide with the framework of macroeconomic populism presented by Dornbusch and Edwards (1990 and 1991): an approach to economics that emphasises growth and income redistribution and de-emphasises the risks of inflation, deficit finance, external constraints, and the reaction of economic agents to aggressive non-market policies.¹⁶ The features of the initial phase of a populist programme seem drawn from the Mexican experience after 1971:

... the country has experienced very moderate growth, stagnation, or outright depression as a result of previous stabilisation attempts... a highly uneven income distribution (provides) the appeal for a radically different economic program. The preceding stabilisation would generally have improved the budget and the external balance (through the accumulation of international reserves) sufficiently to provide the room for, though perhaps not the wisdom of, a highly expansionary program.¹⁷

The perspective that expansionary policies are feasible because of idle capacity complements these conditions; an expansion that would not be inflationary if there was no devaluation (useless as it only feeds further inflation, that brings a new devaluation, and so on). This perspective fitted the notion that the government should “determine the direction and rhythm of development”¹⁸ (Tello 1979, 44-47).

¹² Article that became the foundation for a series of country-studies also edited also by Dornbusch and Edwards (1991). The article on Mexico was written by Bazdresch and Levy and commented by Cárdenas. While the former follows the traditional perspective of bracketing economic policy following political divisions -and so consider that MEP went from 1970 to 1982-, Cárdenas (1996, 86-119) follows economic yardsticks, and situates MEP in 1972-82.

¹³ Antonio Ortiz Mena, Secretary of Finance from 1958 to 1970, and Rodrigo Gómez, in charge of Bank of Mexico from 1952 until his death in 1970, are considered the main architects of SD. The archetypal summary of the SD strategy is that of Ortiz Mena (1970). For a detailed account see Ortiz Mena (1998).

¹⁴ Noyola Vázquez (1973) presents one of the most lucid expositions of inflation as a structuralist phenomenon. The analysis that follows draws heavily from it and from the views presented by Tello (1979).

¹⁵ See for example Tello (1979, 52).

¹⁶ This “economic populism” naturally shares terrain, but should not be confused with, the political concept of populism. See Cárdenas (1996, 86-88) for a brief description of the interrelation between both.

¹⁷ Actually, Dornbusch and Edwards (1991, 9) construct their framework from the experiences of Chile and Peru.

¹⁸ Quote from Echeverría’s second annual message to Congress (September 1972) reproduced by Tello (1979, 57).

3.2.2. THE FIRST STAGE OF MEP, 1972-76¹⁹

Public expenditure started to increase markedly in March 1972, precisely when economic activity was recuperating its normal trend. All budget control broke down, as many projects were authorised personally by the President, a practice that would continue through his term. In real terms, expenditure increased by 21.2 percent, but revenues by only 10.4 percent. The fiscal deficit virtually doubled, from 2.5 percent of GDP to 4.9 percent in 1972.²⁰ Bank of Mexico was also pressured by the ambience of emergency, and monetary policy was relaxed considerably.²¹ The expansion of the monetary aggregates is clear after May (see Table A10). Domestic debt increases markedly, by an equivalent of \$1.06 billion dollars during the year (compared to \$656 million during 1971 and \$400 million in 1970). On the other hand, the net flow of external debt, \$154.2 million dollars, is the lowest since 1965 (Figure 3.2). Contrary to what had happened in the two previous six-year political cycles (there is no information to carry the comparison further) external indebtedness did not shoot up during the second year of the administration.

Initially the expansionary drive was incredibly successful. GDP growth shot up to 8.4 percent while inflation increased slightly, to 5.6 percent (see Table A1). Like other countries that followed populist policies, idle capacity apparently contained inflationary pressures.²² The current account deficit worsened slightly, but in relation to GDP it was the lowest since 1966 (see Table A14), and international reserves increased. In fact, the Mexican peso was seen as a safe haven by speculators thanks to its fixed parity and attractive ex-post interest rates (García Alba and Serra, 40, see Table A23).

A radical tax reform was proposed to increase revenues, but was strongly opposed by the private sector. Fear of capital flight (and devaluation) pushed Echeverría to withdraw the tax reform bill in late December 1972 (Buffie 1989, 419). A tax reform was never to be attempted again, ensuring that the fiscal deficit would mirror the explosive pace of public spending (see Table A3). In any case, the 1972 results seemed to justify the new economic policy, while tarnishing the orthodoxy followed during 1971. MEP was to continue, even when macroeconomic stability was lost.

As excess capacity vanished inflation skyrocketed, ending 1973 at 21.4 percent, the highest level since 1951 (see Tables A1, A4 and A5). The government tried to pin the blame on the upsurge in world prices experienced that year (Buffie 1989, 426). However, while inflation in industrialised countries in 1972 was roughly the same than that in Mexico (4.8 percent), it had only increased to 7.9 percent by 1973 (the corresponding figures for the U.S. were 3.3 and 6.2 percent; see Table C1). When Echeverría accepted that inflation was also the making of his government, his arguments followed closely the structuralist school, considering it a price worth to pay for economic growth and income redistribution.²³

¹⁹ Unless otherwise stated, this section is based on Bazdresch and Levy (1991, 239) and Cárdenas (1996, 95-96).

²⁰ The highest deficit since the Mexican Revolution (1910-17).

²¹ The Bank of Mexico was not independent from the government, and was under the direct control of the Executive branch, through the Secretariat of Finance and Public Credit. See its 1972 annual report for details.

²² For evolutions of GDP and inflation during the first year of the populist programmes in Chile (1971) and Peru (1985-86) see Larraín and Meller (1991, 194-96) and Lago (1991, 275-277), respectively.

²³ See Bank of Mexico (1973a, 19-20) and Echeverría (1976, 80-81). For a structuralist explanation of the increase of Mexican inflation after 1972 see Ros (1980).

Bank of Mexico increased reserve requirements, and additional resources were demanded from the main commercial banks on a “voluntary” basis.²⁴ However, those measures were by far insufficient to finance the deficit in a non-inflationary manner. Another SD policy was abandoned when interest rates were increased only slightly, and turned markedly negative in real terms (see Tables A6 and A7). The so-called “financial miracle” vanished, bringing about the reduction in non-inflationary financing from the banks. The peso ceased to be a refuge for external capital flows, and capital flight started. The capital inflow lost, assuming it had been equal to the one experienced in 1971 (the lowest of the 1970-72 period) and the capital flight experienced in 1973, gives an “opportunity cost” of more than \$1 billion (see Tables A25 and A26). Capital flight was also spurred by a further signal that populist policies, with the President in charge, were not to change: in May 1973, Hugo B. Margáin was forced to resign as Finance Secretary. In an attempt to keep a minimal fiscal control, Margáin had foot-dragged when ordered by Echeverría to increase expenditures.²⁵ The President declared he would appoint someone who could find the money needed for expanded government expenditures (Maxfield 1990, 119). The choice was a lawyer and childhood friend, José López Portillo, with no experience in the Finance Ministry. Echeverría’s response to the worries about Margáin’s sacking made matters worse, as he declared that “(Public) finances are handled from Los Pinos”.²⁶ Confirming in practice his assertion, Echeverría continued authorising expenditure increases, overriding the limits previously presented to, and rubber-stamped by, Congress.²⁷

The strong expansion in world demand experienced during 1973 brought the highest increase in the prices of many products in 25 years, and the terms of trade reached their maximum level in decades (see Tables A11 and A12). The expansionary drive, however, considerably worsened the external accounts (see Tables A13 and A14). To finance the external deficit, the option for the government was to run down its reserves or attract external savings. The promulgation of the Law to Promote Mexican Investment and Regulate Foreign Investment, approved in December 1972, closed (further) the access to FDI (Newell and Rubio 1984, 148). With inflows similar to those registered in the last years of SD, FDI stagnated during the 1973-76 period (see Table A26). The only option was external indebtedness. From the second semester of 1973 huge loans started to be contracted. The pace of indebtedness increased markedly, and would stay at unprecedented levels until 1976.²⁸ Inflation and negative real interest rates notwithstanding, the internal debt net flow was nearly as meaningful, while revenues obtained through the inflation tax were also important (see Tables B22, B23 and Aspe 1993, 69-70). With other options discarded (devaluation, attracting FDI) the need for external debt would have been avoided only if the Mexican economy had been completely detached from the rest of the world, isolated from external trade and financial flows. The government would have continued to issue internal debt at negative interest rates without much trouble, as investors would have had no option where to place their savings. On the

²⁴ In September 1973, it was agreed between the Bank of Mexico and the commercial banks that they would deposit in the central bank -in exchange for government securities- a maximum of 2 billion pesos (160 million dollars). The details of the agreement and on the increase of the reserve requirements are in Banco de México (1973a, 48-51).

²⁵ The straw that apparently broke the back of that strategy was that Margáin had not spent the resources of a government fund established to help poor sugar producers (López Portillo 1988, 363).

²⁶ Los Pinos (The Pines) is the Mexican equivalent to the White House or No. 10 Downing Street.

²⁷ This was not a problem, as the President had an absolute control of his party in Congress, which had in it an overwhelming majority. For an analysis of the formidable powers of the Mexican President see Carpizo (1978).

²⁸ This will be explored in considerable detail in Chapters 5 and 6.

other hand, excessive demand caused by the expansionary drive would have pushed inflation even further, as imports would not function as escape valve.²⁹

Large-scale industrial projects were initiated and, as done during the SD epoch, private enterprises bought if declared bankrupt, to avoid job losses (Aspe 1993, 156-158). The number of SOEs increased from 232 in 1970 to 504 by 1976. Numerous government funds were also established, apparently with the presidential view that the best way to solve a problem was to throw money at it. Substantial wage increases for public employees also increased spending, with the government's wage bill more than doubling in real terms in 1970-76 (Cordera 1980, 471; Buffie 1989, 420). The government also abandoned the custom of revising minimum wages every two years. In September 1973 the first of several "emergency" rises was decreed. Those increases were invariably generous and by October 1976 real minimum wages would reach their historical peak (see Table A27).

Stabilisation attempts were announced several times, to be quickly abandoned or never fully implemented.³⁰ External factors were blamed to justify the economic policy and its shortcomings. For example, the world recession of 1974-75 was blamed for the slow growth of Mexican exports and to justify expansionary policies (as necessary to offset the weakened external demand).

The fiscal deficit kept growing, reaching 10.0 percent of GDP in 1975. Nevertheless, the government managed to sustain yearly inflation in the 11-17 percent range through 1975 and until the last quarter of 1976 (see Tables A4 and A5) mainly thanks to a exchange rate that was kept fixed through massive external indebtedness. But, even if relatively low, domestic inflation was greater than the international one, and the peso continued to appreciate in real terms (see Tables A18, A21 and A22). The cheaper dollar set off a surge in import demand. From 1971 to 1975, private sector imports increased at an annual rate of 22.8 percent and public imports by 53.8 percent, reflecting the high import intensity of many investment projects undertaken by SOEs. Devaluation expectations increased in line with the appreciation of the peso and the increasing gap of the external accounts. Capital flight was stimulated further by the recurrent clashes, mostly at a rhetorical level, between the President and the private sector.³¹ In fact, Zedillo (1981, 57) estimates that in 1976 capital flight was the most important factor to explain the increased level of external indebtedness. Around 70 cents of every dollar of public external debt contracted left again the country in the form of capital flight (see Tables A25, A26 and B1). The government finally devalued at the end of August, and two weeks later applied to the IMF for immediate financial assistance to replenish its reserves and to implement a medium-term stabilisation programme.³²

²⁹ As indeed was the case of other countries that followed populist policies where, without a 3000 kilometre borderline with the United States, exchange controls were (at least partially) feasible. Both in Chile and Peru inflation jumped to a three-digit in the second year of their respective populist programmes (while in Peru it evolved into a hyperinflation, in Chile a military coup finished with the populist policies). See Larraín and Meller (1991, 200) and Lago (1991, 277).

³⁰ An illustration of the lack of a coherent economic policy is the July 1973 "stabilisation" programme (Tello 1979, 64-66). The programme mixed orthodox, monetarist, and structuralist recipes. For example, in its first point (out of 16) it proposed to adjust public expenditure; in the third it said that M1 would grow to a pace similar to real GDP; in the fifth it proposed to increase production capacity in agriculture and industry, and in the sixth to stimulate private investment in the sectors with "scarce supply". For the clashes of orthodox and structuralist views that shaped economic policy in 1974-75 see pp. 94-96 and 115-117.

³¹ Tello (1979) presents several examples of these disagreements.

³² The 1976 crisis is analysed in detail in Chapter 6.

3.2.3. INTERREGNUM: IMF TUTELAGE AND SUDDEN OIL WEALTH, 1977-78

The IMF agreement was signed by the outgoing Echeverría government on 27 October 1976, but the three-year programme had to be implemented by the incoming López Portillo administration, that took office on 1 December. The agreement was formally ratified on 24 December (Banco de México 1976a, 25, 28). Two days before the decision had been endorsed by the cabinet, amid fierce discussions. The structuralist ministers rejected the IMF approach, arguing that inflation should be fought through an increase in production, instead of depressing demand. For the orthodox ones³³, the agreement was fundamental to keep confidence on the then shaky peso, and from the international capital markets. López Portillo agreed to ratify the agreement as the lesser of two evils (López Portillo 1988, 504). Even if the President had strong personal feelings against the IMF, and saw the programme targets as a straightjacket (Table 3.1), he was not prepared to risk the radical changes in economic policy, such as exchange controls, that would be needed if the programme was repealed.³⁴

Table 3.1. IMF Stabilisation Programme: Targets and Results, 1977-79
(GDP percentages unless otherwise stated)

Targets / Year	Targets			Actual		
	1977	1978	1979	1977	1978 ^a	1979
Fiscal Deficit	6.0	4.0	2.5	6.3	6.2	7.1
External Indebtedness ^b	3.0	3.0	3.0	3.31	3.35	3.49
Wage Increases ^c	10.0	12.0	15.0	10.2	13.5	15.7

a. The programme was abandoned in June 1978.

b. Net. Billion dollars.

c. In the targets: government guidelines for private sector wage increases; in the results: increases in the average minimum wage, that are used as a proxy for those guidelines.

Source: Constructed with data from Bazdresch and Levy (1991, 234); Buffie (1989, 429, 435); López Portillo (1988, 478-481), Ortiz Dietz (1996, K-26), and Table B3.

The programme was fairly successful in 1977 (Table 3.1). The fiscal deficit was reduced, mainly through a sharp fall in investment spending. Inflation declined from 27.1 to 20.7 percent, and the current account deficit was reduced by 56.6 percent (see Tables A3, A4, A5 and A14). How the economy would have fared two more years under the IMF is open to conjecture, as during 1977 the prospects of the economy had changed dramatically, as the extent of Mexico's oil wealth was revealed. Important oil fields had been discovered after 1972, and Mexico passed from being a marginal net importer of crude and its derivatives to become a marginal net exporter after 1975 (Table 3.2). Proven reserves increased slightly (see Table A28). However, the government refused to acknowledge an extensive oil wealth (Whitehead 1980, 846, 857; Székely 1983, 58, 95).³⁵

³³ López Portillo had, deliberately, integrated his cabinet with people from radically different ideological backgrounds. The three main economic posts went to Julio Rodolfo Moctezuma (orthodox - Finance), Carlos Tello (structuralist - Planning and Budget) and José Andrés de Oteyza (structuralist - National Patrimony). His rationale was that an eclectic cabinet would offer all the policy options, with the resultant economic policy an optimum mix. Reality was to prove different. The result was not the expected array of alternatives, but repeated clashes he had to arbitrate (many episodes are splashed all over his memoirs, 1988). As he had reduced the powers of the Finance Ministry, and given its expenditure functions to a new powerful ministry - Planning and Budget- the struggles became routine between both ministers. Nevertheless, López Portillo kept appointing followers of different economic schools (seven people would occupy the two cabinet posts during the six-year government). The economic policy concoction that would emerge was to allow the continuation of MEP after the IMF programme was abandoned.

³⁴ For the position of López Portillo on the IMF see (1988, 477-480).

³⁵ Until the end of his term, Echeverría flatly denied that Mexico had important oil reserves. It is not known whether he was misled by his officials, to avoid greater economic mismanagements, or if he wanted to elude pressures from the U.S to exploit that wealth. López Portillo (1988, 705) shares the former opinion; Maxfield (1990, 123) the latter.

Table 3.2. External Trade of Oil Products, 1972-79
(million dollars)

	1972	1973	1974	1975	1976	1977	1978	1979
Total Imports	124.32	270.91	382.20	291.06	291.47	126.53	202.61	259.24
Crude	27.75	79.26	92.66	0.00	0.00	0.00	0.74	0.00
Gasolines	22.05	72.09	127.78	122.25	107.77	17.76	44.15	108.76
Natural Gas	40.83	61.13	103.89	114.99	101.55	82.05	80.35	63.12
Diesel	5.31	29.36	51.33	37.11	70.66	10.15	12.17	0.96
Others	28.39	29.07	6.55	16.71	11.50	16.56	65.20	86.40
Total Exports	21.38	24.79	123.22	460.05	556.97	1033.31	1793.24	3764.62
Crude	0.30	3.69	37.68	434.96	543.50	991.59	1773.60	3764.62
Derivatives	21.08	21.10	85.55	25.10	13.47	41.72	19.64	0.00
Balance	-102.94	-246.11	-258.98	168.99	265.50	906.78	1590.64	3505.38
Crude	-27.45	-75.56	-54.99	434.96	543.50	991.59	1772.87	3764.61
Others	-75.49	-170.55	-203.99	-265.96	-278.00	-84.81	-182.23	-259.23

Source: Constructed with data from Banco de México(1972a to 1980a), statistical appendix.

A key appointment in the new cabinet was that of Jorge Díaz Serrano, an experienced oil private oil contractor and friend of the President, as General Director of Pemex (the petroleum company and a public monopoly). On his advice, López Portillo announced a virtual doubling of the reserves, to 11.2 billion barrels, when he took office (López Portillo 1988, 481-482, see Table A28). Just a few weeks after being appointed, Díaz Serrano presented a \$40 billion dollar expansion programme for 1977-82.³⁶ In February 1977 he reaffirmed that proven reserves stood at 11.2 billion barrels, that by 1982 they would reach 30 billion, and revenues of crude exports \$25 billion. Facing domestic and international scepticism, he contracted the services of De Groyler and McNaughton, international oil auditors, which certified his assertions (Wall Street Journal 1977, 34; Székely 1983, 67; Teichman 1989, 168). The doors of the capital markets became wide open, and Pemex started contracting loans to convert potential oil deposits into exports. This optimism was easily transmitted to the government: oil was suddenly seen as a road to rapid economic development.³⁷ In the first months of 1978 enormous oil fields were discovered, and reserves skyrocketed (see Table A28). For Cárdenas (1996, 108) those findings marked the economic policy reversal. As Székely (1983, 63) points out, the government faced two basic options: to continue with the IMF agreement, using oil revenues as a cushion, or reinstate the strategy of growth led by public expenditure. While rhetorically members of the government (particularly in the Finance Ministry) declared their commitment to pursue the path of reform, the IMF programme was officially abandoned in June 1978, when its loans were paid in advance. This presented as a sign of economic recovery (López Portillo 1978, 16; SHCPa 1981, 98; Newell and Rubio 1984, 216). Deserting the Fund was considered a serious option even in conservative quarters (Euromoney 1977d, 83) and caused no alarm. It was seen as a somewhat logical step, to allow Mexico to borrow above the established limit of \$3.0 billion per year in 1977-79 (see Table 3.1) to accelerate the development of the oil industry.³⁸ Without the IMF surveillance, the government was again free to initiate a new MEP stage.

³⁶ This programme is summarised by Székely (1983, 76).

³⁷ For quotes that express the President's enthusiasm see Székely (1983, 70).

³⁸ This view followed the conventional wisdom in vogue at the time: only countries that were unable to find support for their balance of payments' problem in the private capital markets reverted to the IMF (Williamson 1983, 608-609; Bacha and Díaz-

3.2.4. THE SECOND STAGE OF MEP, 1978-80

The abandonment of the IMF programme was a clear signal that the government was again embarking on the course that had led to the 1976 debacle. However, it was claimed that oil would provide the resources to finance development in a non-inflationary fashion, and that the expansion of public investment was necessary to exploit that wealth (Zedillo 1985, 304). López Portillo did not share Echeverría's hostility towards the private sector, but considered it an unreliable engine for development. Thus, the public sector was to spearhead the process of capital accumulation, and develop an economy immune to the vagaries and potential blackmail (i.e. capital flight) of the private sector (Bazdresch and Levy 1991, 246-248).

Policies that promoted efficiency and a better allocation of resources were implemented, particularly in 1977-79. Interest rates became much more flexible, though real positive yields were still rare (see Table A7). Treasury Certificates (Cetes) were introduced to finance the public deficit, and a value-added tax (VAT) was introduced in 1980 (Gil Díaz 1983, 62-65). The government negotiated an advantageous entrance to GATT, but decided not to join (Newell and Rubio 1984, 217-219). This opened the door for the liberalisation measures that were implemented to be reversed (as indeed was to be the case). The liberal wage increases granted during the Echeverría administration were dropped and replaced by a restrictive wage policy (Buffie 1989, 431, 433-434).

However, those policies were eclipsed by the deterioration of public finances that occurred after 1978. A fiscal reform was again postponed, as much higher oil revenues were expected, and to avoid the risk of capital flight (López Portillo 1978, 705).³⁹ The expansionary drive was based in two central assumptions, both out of the government's control –and that would prove wrong: that international prices of oil would keep increasing in real terms, and that international interest rates would remain low or even negative in real terms. From a high platform of crude exports (the objective was 1.1 daily million barrels by 1982⁴⁰), it was expected that an “oil surplus” would materialise. But the expectations on and uses envisioned for the “surplus” expanded irrationally. The best crystallisation of those wild expectations would arguably be the National Plan for Industrial Development (PNDI) presented in 1979, which aimed to reach an average GDP growth above 10% from 1980 to 1990.⁴¹ The Global Development Plan, presented in 1980, was only slightly more modest in its goals. These plans and several other proposals were mere reflections, not causes, of the course that had been adopted by the government time before.

Several negative policies observed during SD and the first stage of MEP returned. SOEs (Pemex the prime exception) would become an increasing dead weight, as the administration followed two traditional economic policies regarding key domestic prices: much lower than their international counterparts and fixed for long periods of time. Undoubtedly the prime example is the price of domestic petrol (see Table A29). While relatively manageable during SD, this policy implied explosive subsidies in

Alejandro 1982, 32). This view would initially be supported by the Reagan administration. For details on that position and policies implemented based on it see Cohen (1984, 118); Gwin (1981, 530-531); Williamson (1983, 615), and (Kraft 1984, 12).

³⁹ As it has been described, exactly the same reason that stopped Presidents Díaz Ordaz (in 1966) and Echeverría (in 1972) from implementing one.

⁴⁰ This objective was reached two years ahead of the original programme, in 1980.

⁴¹ Brailovsky (1979) presents a brief summary of the PNDI.

the 1970s and early 1980s. This policy, of course, would evaporate an important proportion of the expected “oil surplus” (Rizzo 1983, 121). SOEs continued to be seen as an important channel to transfer subsidies to the population, via jobs or low relative prices. This last objective reached unparalleled levels after 1977. As Bazdresch and Levy (1991, 247) put it this policy was the result of

... a political culture that... sees the government as a *provider*. And oil... removed any reasons why the government should not provide. The outburst of public spending was not the outcome of a single individual intoxicated by a terms of trade shock: it was also produced by a set of institutions that simultaneously placed great expectations on what the government should provide and few restraints on the nature of its intervention in the economy (emphasis in the original).

How deeply-rooted was that culture in López Portillo is evident in his personal account of how he authorised price increases: the President agonised each time he faced the imperative to raise one. It was not only the anxiety for the inflationary consequence, but the genuine belief that it was negatively affecting the well being of millions.⁴²

The amount of resources needed to supply those subsidised public goods and services, plus the investments needed by Pemex and other SOEs, explain why the fiscal deficit would start increasing again after 1978. The estimate by Rubio and Gil Díaz (1987, Table 3.3) totals the astounding figure of \$64.8 billion dollars.

Table 3.3. Selected Public Sector Investments, 1977-82
(million dollars)

Year	Steel	Compounded ^a	Pemex	Compounded ^a	Subsidies ^b	Compounded ^a
1977	104	165	1568	2493	1461	2323
1978	98	145	2758	4089	1353	2006
1979	92	126	3970	5444	3032	4158
1980	251	312	5500	6840	5075	6311
1981	473	544	9318	10723	5787	6660
1982	467	484	5216	5404	6318	6546
Total		1776		34993		28004

a. Compounded at 1982 values. Calculated with the implicit interest rate on public debt.

b. Investments for supplying the increased quantities demanded for subsidised public sector goods.

Source: Rubio and Gil Díaz (1987, 29-31).

The expansionary policy had immediate results, with 1978 the first of the four years that the economy would expand by at least eight percent. On the other hand, inflation actually fell, and in 1979 it would merely increase to the level observed in 1977. Factors like the restrictive wage policy, the opening of the economy (allowing excess demand to spill more easily into imports) and the growth of the agricultural sector (that increased the supply of foodstuffs) explain the relative sluggish response of prices. Considering the policy followed on public prices and the virtually fixed exchange rate, it is explicable why -even with an ever-increasing public deficit- inflation was kept in the 15-30 percent per annum range until 1981 (see Tables A4 and A5). With economic growth at historical levels, the

⁴² López Portillo's memoirs offer abundant examples. For his reflections on the first time he authorised increases to the prices of sugar and tortillas see pp. 505-506. For the 1981 increase in the price of petrol (fixed since 1977) see pp. 1123, 1131 and 1133.

government did not exonerate itself from inflation: the argument was, again, that it was a necessary evil, the alternative to low inflation with diminished growth. After the important real devaluation of 1976 (almost 100 percent in nominal terms), the peso started to appreciate, albeit slowly in the first two years, as the Mexico-U.S. inflation differential was relatively low. Frequent statements were made to the effect that the peso was “fixed but adjustable”. However, it would soon prove to be much more fixed than adjustable. Its appreciation (see Tables A21 and A22) combined with trade liberalisation, and the need of capital goods by many SOEs, headed by Pemex, provoked an increasing trade deficit, despite the enormous increase in oil exports. Moreover, exports from other sectors stagnated or even fell. The so-called “Dutch disease” started to get hold of the economy, with an increasing distortion in the relative prices between tradable and non-tradable goods pushing many local producers out of the market as they were unable to compete with increasingly cheaper imports –as the exchange rate remained virtually fixed while domestic producers faced the local inflation (Cárdenas 1996, 111-112).

The second oil shock in late 1979 provided a further sense of euphoria. López Portillo declared that the country’s economic challenge would be “the management of abundance”.⁴³ The increase in oil prices further undermined fiscal discipline, but the government had no difficulty financing its deficits, recurring to its usual sources: public indebtedness and direct monetary emission from the central bank. The most important source of deficit financing was inflation tax, followed by internal debt (see Tables B22, B23 and Aspe 1993, 69-70). External indebtedness was relatively prudent and extremely skilful, as the payments’ horizon was lengthened and costs reduced.⁴⁴ However, though not reaching yet alarming proportions, the twin deficits -fiscal and current account- continued to expand after 1979: PSBR leapt from 6.0 to 7.5 percent of GDP between 1979 and 1980, while the current account went from 2.5 to 5.5 percent. The domestic -along with the external- signals were for slowing the pace. However, exactly the opposite was to happen.

⁴³ Apparently he was referring to the challenge of avoiding the negative (i.e. inflationary) consequences from the expanded inflows of foreign currencies, but the way this view was presented reflects perfectly the general expectations the increase in oil prices brought.

⁴⁴ That policy is analysed in detail in Chapter 5.

3.2.5. MEP'S APEX AND COLLAPSE, 1981-82

At the end of 1980 an adjustment was needed, but far from radical. A cleanup of public finances to stop the worsening trend in the fiscal deficit, plus some adjustments, especially in exchange rate policy (with possibly a more active crawl) would have done the trick (Solís and Zedillo 1985, 273). This became imperative as the world economy had started to enter into a deep recession, as a result of a pronounced increase in international interest rates in 1979 (Volcker and Gyohten 1992, 167-169). The period of low or even negative real interest rates ended abruptly. Moreover, the loose fiscal policy promoted by the Reagan administration (Makin 1984, 218; Regan 1988, 178-184; Volcker and Gyohten 1992, 178) ensured historic levels of real interest rates for several years to come (see Tables C1-C3). A global recession ensued as other industrialised nations followed the U.S. lead to lower inflation.

Eventually the global slump had an impact on the oil markets. On May 1981, the OPEC cartel made public its failure to negotiate a cut in the production levels. To avoid losing any market share, on June 2, Pemex⁴⁵ announced a four-dollar reduction on its export prices. Other producers followed and the reduction became generalised. Díaz Serrano implemented the reduction after a quick consultation with López Portillo, who later alleged he had approved on principle, but pending cabinet approval. When the cabinet met to discuss the issue, the reduction had already been announced. Several Ministers, particularly De la Madrid (Planning and Budget) and Oteyza (National Patrimony and Industrial Development) protested against the timing and size of the cut.⁴⁶ Díaz Serrano was fired.⁴⁷ Ignoring the market signals, the price cut would be partially reversed, with prices increased by two dollars. Buying orders were cancelled. Compared to their May level, oil exports fell by almost a quarter and 65 percent during June and July, respectively. Just during July, the loss amounted to at least \$650 million. The total amount of revenues lost because of the gaffe was in the \$1-\$2 billion range.⁴⁸

Even graver than the revenue loss was the shock that the June 1981 blunder caused among economic agents: it abruptly reversed the expectations on the sustainability of the economic strategy. Although wealth holders had started to read the basic economic statistics in a less complacent way, the possibility of devaluation still looked somewhat academic until June. With ever increasing oil exports, in amount and value, the economy seemed immune to mishappenings such as the ones lived in 1976, that were too close to be forgotten. With confidence badly shaken, however, devaluation looked suddenly like a real possibility. The oil blunder signalled the immediate beginning of tremendous outflows of capital and the increasing dollarisation of deposits in the Mexican banking system (accounts denominated and payable in dollars and known as mexdollar deposits).

The President was informed of important volumes of capital flight in June, and advised to devalue and drastically cut public spending at the beginning of July. He flatly refused (López Portillo

⁴⁵ Mexico has never been a member of OPEC.

⁴⁶ For several Ministers, as was the case of De la Madrid, it was also an opportunity to destroy a potential rival, as Díaz Serrano was considered among the top contenders for the Presidency. The presidential candidate is chosen among the most outstanding members of cabinet, with the incumbent President having by far the strongest influence in the decision (Castañeda 1999). Pemex was, on paper, answerable to Oteyza's Ministry. In reality Díaz Serrano had always dealt directly with the President. This was an opportunity for Oteyza to re-assert his authority.

⁴⁷ López Portillo (1988, 1058-1062) and Díaz Serrano (1989) present accounts of the incident in their memoirs. See Asheshov (1981a, 63-64) for a short account.

⁴⁸ Even more considering the extra contracts that Pemex would have obtained if the four-dollar cut had been left unchanged.

1988, 1082-1083, 1144, 1151).⁴⁹ The peso continued to be depreciated daily at an annual rate of only 9 percent. The rationale of the President against devaluating was that as oil exports had increased rapidly, then it would do little to increase total exports; that it would increase capital flight, rather than reduce it, because of the panic it would cause, and that the resulting inflation would quickly annul any gains.⁵⁰ And of course, there were the political costs of devaluating the peso.⁵¹ To avoid devaluating, trade liberalisation measures were reversed, fiscal incentives for exports were increased, and an across-the-board cut of 4 percent in public expenditure was decreed, but with respect to the already higher than budgeted level. As it turned out, not even this timid adjustment was made (Zedillo 1985, 313). Public expenditure was not trimmed, alleging that many projects were halfway through.

Far from sinking into a financial crisis, the economy continued speeding ahead. Any remaining budget control was lost, and spending pushed the fiscal deficit to 14.1 percent of GDP (see Table A3). The deficit was in reality even larger because, as a public monopoly, the build-up of revenues of Pemex was mirrored by a similar increase in taxes paid to the government. However, the fiscal contribution was above its capacity to cover its own costs and spending, and it contracted debt to fill the gap. The government, in fact, registered external debt as tax revenues (Gurría 1988, 73). The external sector mirrored the unchecked expansion in aggregate demand. The current account deficit exploded to \$16.1 billion dollars, with capital flight in the \$7-\$12 billion range (Figure 3.3), while the economy grew for yet another year at a real rate above 8 percent. This amazing economic performance is explained in the availability, and utmost exploiting, of external indebtedness, that financed the capital outflows.⁵² By mid-July 1981 some days registered outflows near to \$150 million; by the end of the year they had increased to peaks of \$200 to \$300 million per day (López Portillo 1988, 1085). A few days before agreeing to devalue, López Portillo tried again to reduce the outflow by increasing tariffs and providing increased export subsidies (López Portillo 1988, 1161). In the two days before the peso was allowed to float, in 17 February 1982, the reserves were drained by \$560 million (Ibid, 1175).

After the devaluation, a stabilisation programme was announced, but never implemented. Four weeks later, what was actually done wiped out the benefits of the devaluation. Wage increases of up to 30 percent were decreed, along with an “emergency” programme including fiscal relief and subsidies for private firms (Zedillo 1985, 315), while public prices were left unchanged. Two days before the Finance Secretary and the Central Bank Governor had been fired, blamed for overshooting the devaluation (Kraft 1984, 36). The new economic team elaborated another stabilisation package in April, also never implemented, as pressures to finish projects already started hindered control over public expenditure. Not surprisingly, as early as mid-March, capital flight started again. Uncertainty increased with the drawing of parallels with the 1976 crisis, as another one was feared to take place again in the last year of the government. Elections in July added further political uncertainty that fuelled more capital flight. The government refused to devalue again, fearful of losing votes.

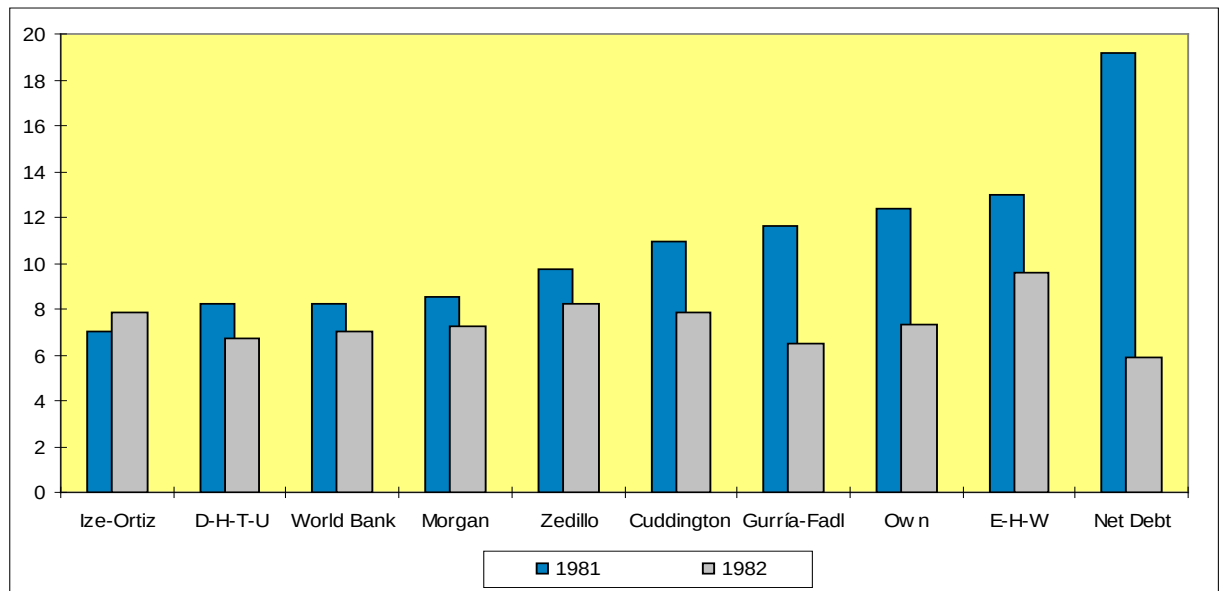
⁴⁹ A justification for the economic policy followed in 1981 is presented by López Portillo in detail (1988, 1138-1156). The description of the policies implemented draws heavily from that account.

⁵⁰ Again, at least some theoretical support for this rationale can be found in views such as those expressed by Noyola (1973).

⁵¹ López Portillo himself summarised this cost in a phrase he coined: “President that devalues, devalues himself”.

⁵² See Chapter 5 for details on the impressive indebtedness process in the 1981-82 period.

Figure 3.3. Net External Indebtedness and Capital Flight Estimates, 1981-82
(million dollars)



Note: E-H-W the estimate by Eggerstedt, Hall, and van Wijnbergen and D-H-T-U that from Dooley, Helkie, Tryon and Underwood. Net Debt represents the external net indebtedness during the year.

Source: Elaborated with data from Tables A25, A26 and B1.

During 1982 foreign financing was much scarcer.⁵³ With less money to keep public prices down artificially, to finance imports, and to keep the exchange rate fixed, inflation skyrocketed. From the plateau of nearly 30 percent where it had hanged since mid-1980, it started to increase quickly from the beginning of 1982, to reach an historical high of almost 100 percent by December (see Tables A4 and A5).⁵⁴ Since early March, the Finance Minister and the head of the central bank made regular trips to Washington to obtain emergency funds. Reserves were bolstered on several occasions by the Federal Reserve with short-term loans, to buy time for a new government, that would have no qualms to go for help to the IMF, to be elected (Volcker and Gyohten 1992, 199).⁵⁵

Capital outflows continued as a new devaluation was expected after the election. Depositors started even to withdraw their balances from the mexdollar accounts, while others moved their savings from pesos to mexdollars. When several public prices were increased on the first day of August, the stampede for dollars increased. On 5 August, a dual exchange market was announced, with preferential (controlled) and ordinary (free) exchange rates, with the former being what until the previous day had been the market rate. The following day the free rate was in the 77-84 pesos per dollar range, while the preferential stood at 49.13 pesos per dollar. With the peso de facto devalued, depositors started to empty their mexdollar deposits. In the first days of August more than \$1.3 billion were withdrawn (Tello 1984, 100-103). On 12 August, mexdollar deposits were made payable in pesos, and five days later it was announced that payment would be made at a special rate, much inferior to the one that prevailed in

⁵³ This will be detailed in Chapter 5.

⁵⁴ The highest recorded growth in prices since 1927 -when statistics on the matter are first available- had taken place in 1944, when the Food Cost Index in Mexico City increased by 44 percent (Banco de México 1982a, 17).

⁵⁵ It was common knowledge that the official candidate Miguel de la Madrid, whose views were much more orthodox, would win the election. Silva Herzog, Minister of Finance since February, was part of his team, and his unofficial liaison with the U.S. financial and monetary authorities. For López Portillo, calling the IMF was equivalent to a personal defeat: to leave the country in the same conditions he had received it.

the free market.⁵⁶ The authorities thus cancelled the potential threat of a run on mexdollars, which could not possibly have been met. On 13 August, the Finance Secretary travelled to Washington, to seek for emergency funding from the United States, as reserves had been practically depleted. A few days later a virtual default on the principal payments of the external debt was agreed with commercial creditors.⁵⁷

Three weeks later, in his last annual address to Congress, López Portillo presented a scapegoat: commercial banks were blamed for the capital outflows, and nationalised. Another decree imposed comprehensive exchange controls. The new official rates in the two exchange markets -none open to free selling or buying- brought an important nominal (and furthermore real) revaluation. The immediate result was a parallel (and legal) free exchange market that mushroomed, literally, a few metres from the Mexican-U.S. border, with exchange houses on the U.S. side. The widening gap between the official exchange rates and those that prevailed in the (U.S.) free market is evident in Table 3.4. For the 90 days that lasted to the administration, an expansionary monetary policy was followed. Nominal interest rates were actually reduced, and all attempts to bring some flexibility to the exchange controls were flatly turned down.⁵⁸ At the same time, an adjustment programme was agreed, on 10 November, with the IMF.

Table 3.4. Exchange Rate Regimes during the last Quarter of 1982
(pesos per dollar and percentages)

Period	Mexican Banks		Exchange Houses in the U.S. Border			
	Preferential Sell	Ordinary Buy	Free Buy	Free Sell	Differentials (%)	
					(1)	(2)
October	50.00	70.00	103.50	108.32	116.6	47.9
(6, minimum)			96.00	100.00	100.0	37.1
(29, maximum)			112.33	120.33	140.7	60.5
November	50.00	70.00	121.63	127.56	155.1	73.8
(1, minimum)			117.50	123.17	146.3	67.9
(26, maximum)			124.83	128.83	157.7	78.3
December (1-19)	50.00	70.00	130.50	136.62	173.2	86.4
(3, minimum)			125.83	130.83	161.7	79.8
(16, maximum)			138.33	144.00	188.0	97.6

(1) Between the free (sale) rate and the preferential rate.

(2) Between the free (buy) rate and the ordinary rate.

Source: Banco de México (1982a, 194)

Ironically enough, within the last months of the administration, and already in an economic crisis, MEP reached its apex. López Portillo had always considered certain economic policy options as too radical. Exchange controls was one, and the nationalisation of the banks was another. In the quest to regain his lost popularity, what had never been attempted was implemented. The gesture was even more futile as the incoming De la Madrid government was to not going to pursue that path. The last but powerful gasp by MEP would be followed by a draconian adjustment.

⁵⁶ The average sell exchange rate in the 19-31 August period was 107.1 pesos, while the mexdollar exchange rate was fixed at 69.50 pesos per dollar.

⁵⁷ This will be detailed in Chapters 5 and 6.

⁵⁸ Tello (1984, 197-201) chronicles in detail the disagreements between the Bank of Mexico and the Ministry of Finance with respect to monetary and exchange rate policy.

3.3. ADJUSTMENT WITH SCARCE EXTERNAL RESOURCES, 1983-89⁵⁹

A turnaround came practically from the first day of the De la Madrid administration. Populist policies were completely discredited, but international markets closed. For the first time in its modern economic history, Mexico had to transfer an important volume of resources to its creditors (see Table B8), while simultaneously carrying out stabilisation and structural policies.

3.3.1. FAILED ADJUSTMENT WITH SCARCE EXTERNAL RESOURCES, 1983-87

A harsh economic adjustment started as soon as De la Madrid took office on 1 December, under the Immediate Programme for Economic Re-Ordering (PIRE). As it was pointed out in the central bank's annual report:

The magnitude and speed of the adjustment were also imposed by the suspension of external credit. The scarcity of additional external financing⁶⁰ did not allow an ample margin of manoeuvre with respect to the time the adjustment could take. The option to proceed gradually did not exist (Banco de México 1983a, 24).

The objective was to achieve a PSBR equivalent to 8.5 percent of GDP in 1983 (half the 1982 figure). The VAT general rate was increased from 10 to 15%, a 6% rate was decreed for certain foods and medicines, and a 20% rate for goods considered luxurious. Several public prices were increased markedly, particularly those in the energy sector (see Tables A29-A30). The intention was to have positive real interest rates. During 1983-86 interest rates would be on average moderately positive or negative, markedly negative in 1987, while financial deepening followed a bumpy road (see Tables A7, A8 and A9). While money printing was avoided as much as possible, compulsory reserve requirements were to be the main instrument of monetary regulation and an important source of public financing.

The 1983 results were mixed. The fiscal deficit fell to 8.6 percent of GDP and inflation fell to 80 percent (the original goals had been 8.6 and 55 percent, respectively). On the other hand, the external accounts turnaround was impressive (see Tables A13-A14), as a huge surplus was required to finance external debt service. However, GDP growth was -4.2 percent instead of the expected zero. During 1984 and the first half of 1985 a number of reflationary demand- and supply-side measures produced a modest recovery. Real GDP growth during 1984 was 3.6 percent, while inflation fell to a notch below 60 percent. The modest recovery, however, was not accompanied by progress in reducing the fiscal imbalance, which was reduced by an insignificant 0.1 percentage point to 8.5 percent of GDP, far from the IMF programme target. From the last quarter the falling trend of inflation stopped, and the current account deteriorated, while the increasing private sector demand for credit diminished international reserves (see Tables A3-A5, A14 and A23). With no access to external loans, that option to replenish them was closed. From the first semester of 1985 monetary policy was tightened, through increased reserve requirements and higher interest rates, but it was too late to avoid negative consequences from the unleashed expansion. Moreover, it was not accompanied by a fiscal tightening (see Table A3).

⁵⁹ The account that follows has been constructed from the annual reports of the Banco de México from the period, SHCP (1988, 182), Buffie (1989, 447-465), Aspe (1992, 74-102), Ortiz (1992, 130-150), Gurriá (1993, 62-63), and Cárdenas (1996, 118-152).

⁶⁰ By additional it meant to the amount negotiated with official and commercial sources. See Chapter 6 for details.

Since December 1982 the exchange rate had been used as a nominal anchor, with the crawling peg of the controlled and free rates inferior to inflation. The supply of dollars under the free exchange rate was limited, and additional dollars had to be bought in a (tolerated) black market or in the exchange houses in the United States, that proliferated along the border (arguably the real free market rate). The peso appreciation, credit expansion, reversal in the inflation trend, and the concern on oil prices (that started to fall in June 1985) contributed to increasing exchange rate uncertainty, and with it an increased premium between the official free rate and that in other markets. The crawling peg was accelerated twice, to no avail (Table 3.5). After experiencing a continuous drainage of reserves (see Table A23), the free rate was devalued on July 11 (the premium offered by the exchange houses in the U.S. had averaged 25.6 percent during the previous month), while the controlled rate was to follow a fortnight later. While in several occasions there had been a noticeable gap between both the official free rate and that offered in other markets, it usually was very small, and any bursts disappeared fast. The government fully recognised the reality pointed by the market and, following a similar strategy to that taken in December 1982, the devaluation took the free rate virtually to the same level that prevailed in parallel markets (Figures 3.4 and 3.5). However, the exchange rate policy that had been followed was effectively shattered, and substituted for one much more attentive to market winds (Table 3.5). Any hope of maintaining the downward trend of inflation vanished. Several measures were implemented to revive the adjustment effort. Thousands of bureaucrats were laid off, the opening of the economy was accelerated with the conversion of import permits into tariffs, and over 200 SOEs were put on the block. However, having seriously departed from all the established targets, the IMF was about to declare the country not eligible for more funds.⁶¹

Table 3.5. Main Features of the Exchange Rate Policy, 1982-85

Period	Controlled Market	Free Market
20.12.82 to 22.09.83	Starting from 95 pesos per dollar, it devalues 13 cents per day (Initially a yearly devaluation of 49.9 percent), converging towards the free market rate.	150 pesos per dollar parity kept virtually fixed during the period.
23.09.83 to 06.12.84	No change. At the beginning of the period, the crawling peg meant a yearly devaluation of 36.2 percent.	Crawling peg of 13 cents per day, initially meaning a yearly devaluation of 31.8 percent.
07.12.84 to 05.03.85	Crawling peg increased to 17 cents per day, meaning an initial yearly devaluation of 32.9 and 30.0 percent of the controlled and free rate, respectively.	
06.03.85 to 10.07.85	Crawling peg increased to 21 cents per day, meaning an initial yearly devaluation of 37.7 and 34.6 percent of the controlled and free rate, respectively.	
11.07.85	No change.	Devalued by 37.8 percent. Crawling peg discarded for a "managed float".
25.07.85	Devalued by 20.0 percent. Crawling peg discarded for a "managed float".	No change.

Source: Constructed with data from Banco de México (1985a, 43-46).

⁶¹ Apparently the IMF was to declare the financing suspension the day the earthquake hit. See for example, "Mexico is facing an IMF cut-off of further lending", *The Wall Street Journal*, 20 September 1985 or "IMF threatens loan cut-off, but status may be reassessed", *The Houston Chronicle*, 20 September 1985 (quoted by SHCP 1988, 182n12).

Just before the IMF took that step two big earthquakes hit Mexico City, on 19 and 20 September. The material damages were estimated at around 3.0 percent of GDP. A few months later, the bottom fell under the oil market.⁶² The Mexican barrel average price fell from 25.33 dollars in 1985 to 11.86 in 1986 (reaching a low of 8.45 in July, see Table A16), and oil exports by \$8.46 billion (6.8 percent of GDP, 39 percent of exports, and 26 percent of total public revenues). Adjusted for changes in international interest rates, terms of trade stood an astonishing 56.2 percent below the 1973 peak (see Tables A11 and A12).

As virtual panic ensued, the response was more austerity.⁶³ The peso depreciation was accelerated strongly, so much that during the first quarter of 1986 the free exchange rates⁶⁴ not only maintained a minimum difference between them, but nearly converged with the controlled rate for the first time since exchange controls were established. Except for a period of a few days in June, when the free rates experienced a brief burst, the three rates drifted together (Figures 3.6 and 3.7). An additional advantage of the real devaluation, 34 percent during the year, was that it cushioned the opening of the economy to international trade (Mexico entered GATT in 1986). Aggressive devaluation was supplemented with an extremely contractionary monetary policy. The fiscal adjustment, however, was limited, and far from the one necessary to neutralise the oil shock. The financial deficit was 16.9 percent of GDP, less than a percentage point away of the 1982 figure. The economy fell back into a severe stagflation: GDP declined by 3.8 percent, while inflation jumped to 105.7 percent, a few points above the 1982 level. Real minimum wages, relatively constant in 1984-85 after falling during 1983, started to decline markedly, despite the fact that nominal increases took place every three months (Figure 3.8). After four years of adjustment, the Mexican economy seemed to be back at square one. With virtually no access to external resources, and under monetary stringency, the fiscal deficit was largely financed through internal indebtedness -crowding out the private sector completely. As a proportion of GDP, internal debt jumped from 19.5 to 28.9 percent during 1986 (see Tables A3 and B22).

The economy would revive somewhat during 1987, with GDP increasing 1.9 percent. As exchange rate policy was aimed to keep the peso at a real level similar to that attained in 1986, manufacturing exports increased 39.2 percent with respect to 1986 (99 percent with respect to 1985, see Table A15). The positive balance in the external accounts, plus lending from commercial creditors and other capital flows brought an important accumulation of international reserves (see Table A23), that reached historic-high in August 1987. During the first nine months of the year, the Mexican stock exchange experienced a tremendous boom, which had started since the second semester of 1986. The bubble was typically nourished before bursting by a score of inexperienced investors. A decline at the beginning of October soon became a crash with the collapse of the Dow Jones index. Many investors that managed to get out fled to dollars in search of security.

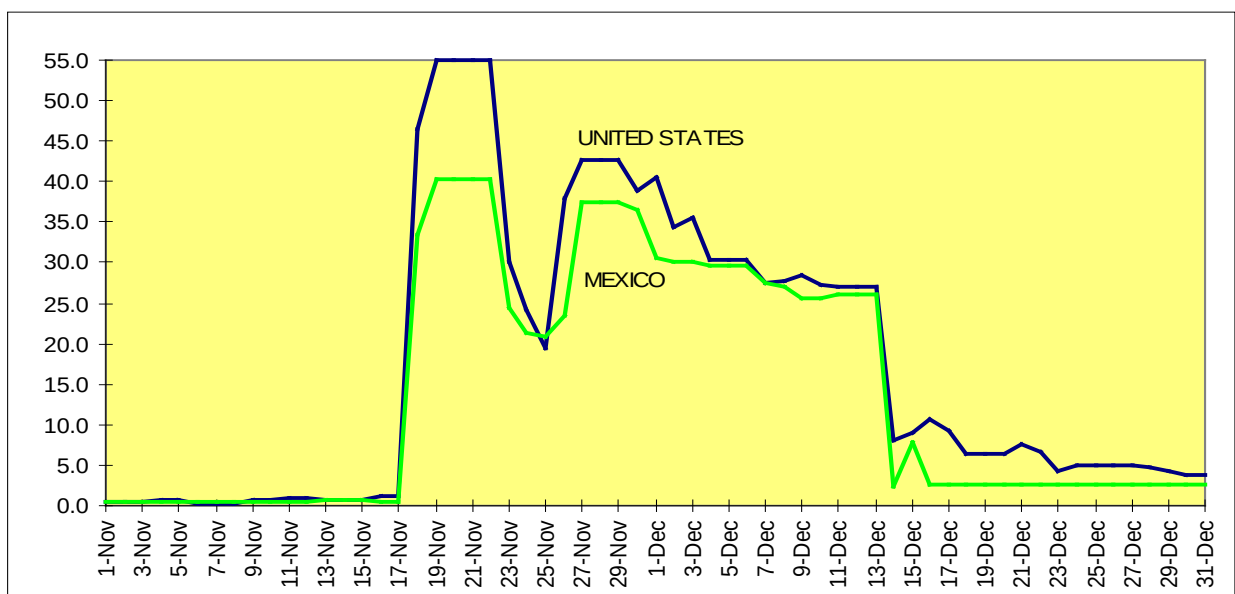
⁶² In its December 1985 meeting, OPEC members not only were unable to agree on production quotas, but rather resolved to start a price war to try to move out from the market some non-OPEC producers such as Norway and the United Kingdom, and discipline members that had violated previous agreements.

⁶³ On 21 February, in a speech televised to the country, President De la Madrid outlined the economic policy to be followed. Contrary to popular expectations, there was not a declaration of default on external debt payments; the outlined measures signalled the continuation of an orthodox adjustment.

⁶⁴ The official free exchange rate and that offered by exchange houses in the U.S. side of the border.

When international reserves started to fall, the authorities reacted to protect them, and devalued abruptly the free exchange rate by 32.8 percent on 18 November (Figure 3.9). The flight from the peso had barely started, the loss of reserves amounted to less than \$200 million dollars during October, and there was not an inkling of pressures on the price of the dollar on the exchange houses on the U.S. in the days before the devaluation took place (Figure 3.10). The mistake was not to devalue the controlled market rate. For the first time in more than a year, a huge gap appeared between the controlled and free markets (Figure 3.11). The reserves were drained a further \$650 million in November and December, and the controlled exchange rate followed suit on 14 December, being devalued by 21.9 percent, to reach a similar level to that observed in the free markets.

Figure 3.11. Differential between the Controlled and Free Markets^a
Peso-Dollar Exchange Rates, 1987
(percentages)



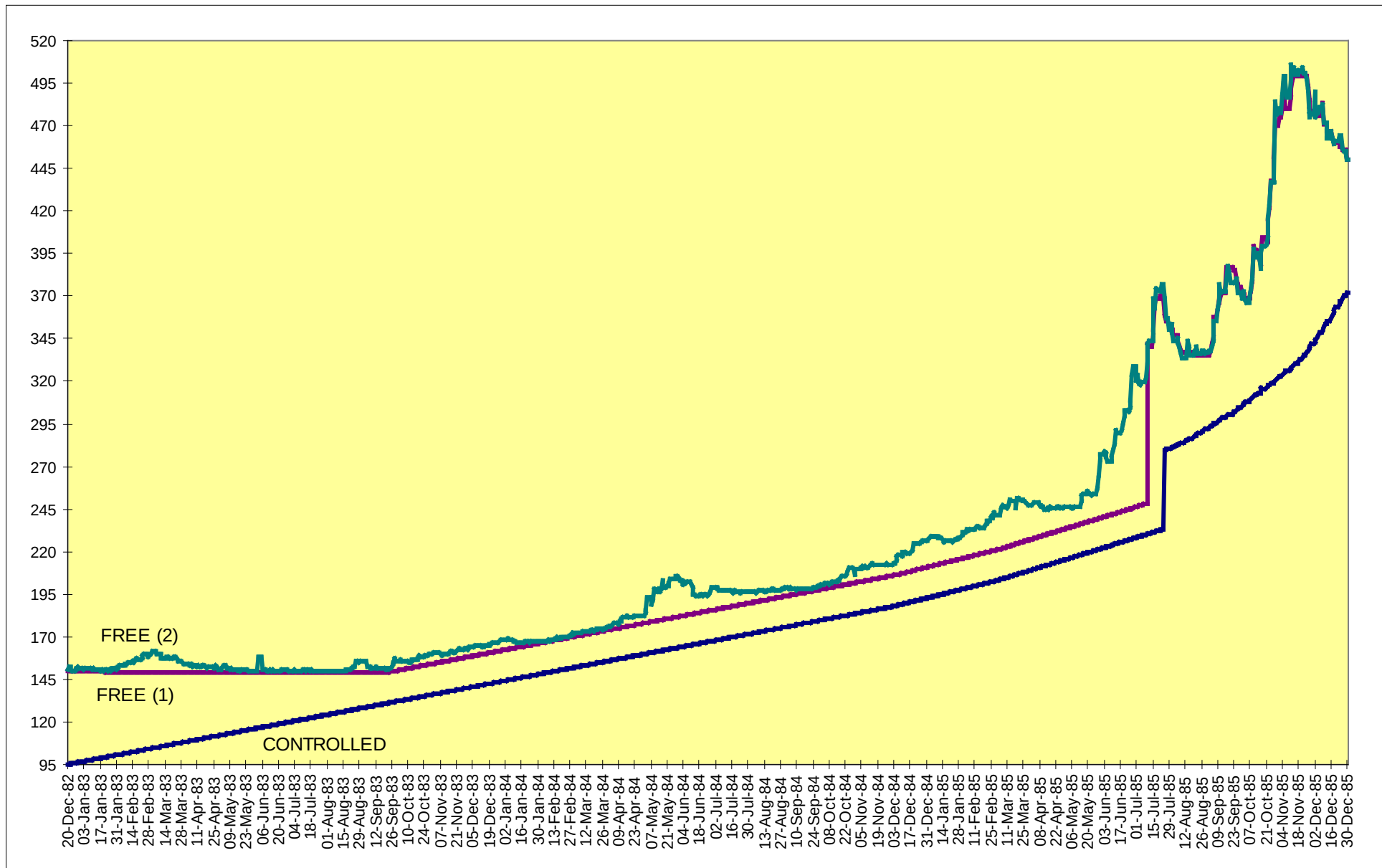
a. With respect to the sell rates in domestic bank exchange houses in Mexico and exchange houses in the U.S. side of the U.S.-Mexico border.

Source: Elaborated with data from Banco de México(c and d).

Up to September 1987, there had been a relative feeling of prosperity because of the -albeit small- economic growth experienced and the stock exchange boom and even the impression in some quarters that it would be possible to grow with high inflation. Crash and devaluation smashed that notion. At the end of the year there was a sensation of frustration and impotence. The fiscal deficit would be, as in 1986, 16.0 percent of GDP, while the devaluation pushed inflation to a record-high 159.2 percent. That is, much higher than in 1982, with purchasing power of minimum wages depleted, and real GDP barely above its 1981 level (see Table A1). With one more year to go, and after five years of crisis, the De la Madrid administration was under the imperative to make a bold move.⁶⁵

⁶⁵ The administration had repeatedly refused to apply an heterodox economic shock, and rather opted for a gradual stabilisation programme. The spectacular failures of the Austral (1985) and Cruzado (1986) plans in Argentina and Brazil, respectively, seemed to vindicate that judgement. Those plans are analysed Bruno (1988), Jarque and Téllez (1993). For a brief description of the main mistakes of those plans see Aspe (1993, 20-22).

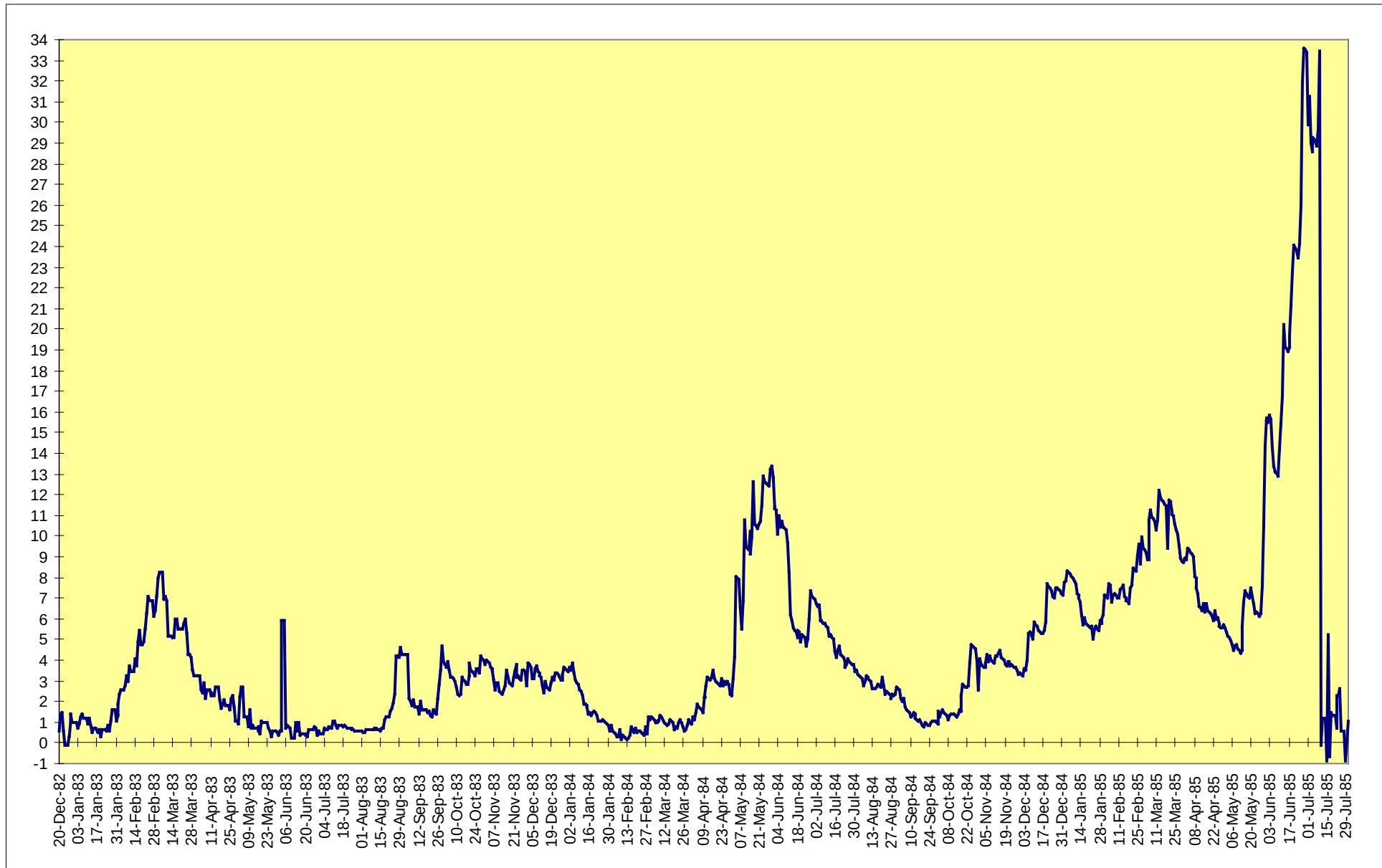
Figure 3.4. Exchange Rates^a Evolution, 1982-85
(pesos per dollar)



a. Free (1) is the free (sell) exchange rate offered in Mexico, Free (2) that offered by exchange houses in the United States near to the Mexico-U.S. border.

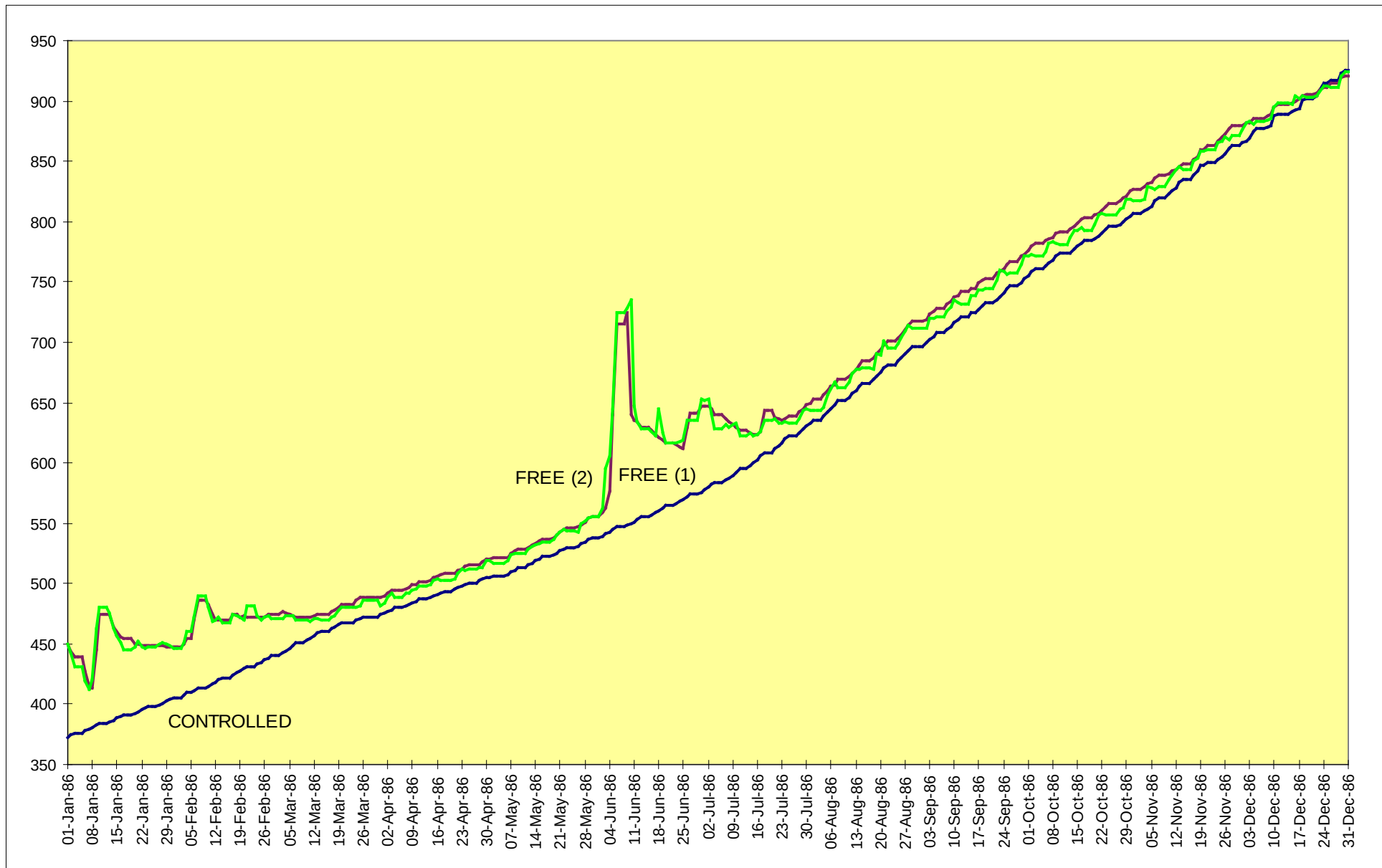
Source: Elaborated with data from Banco de México(d).

Figure 3.5. Differential between Mexican and U.S. Peso-Dollar Exchange Rates, 1982-85
(percentages)



Source: Calculated with data from Banco de México(d).

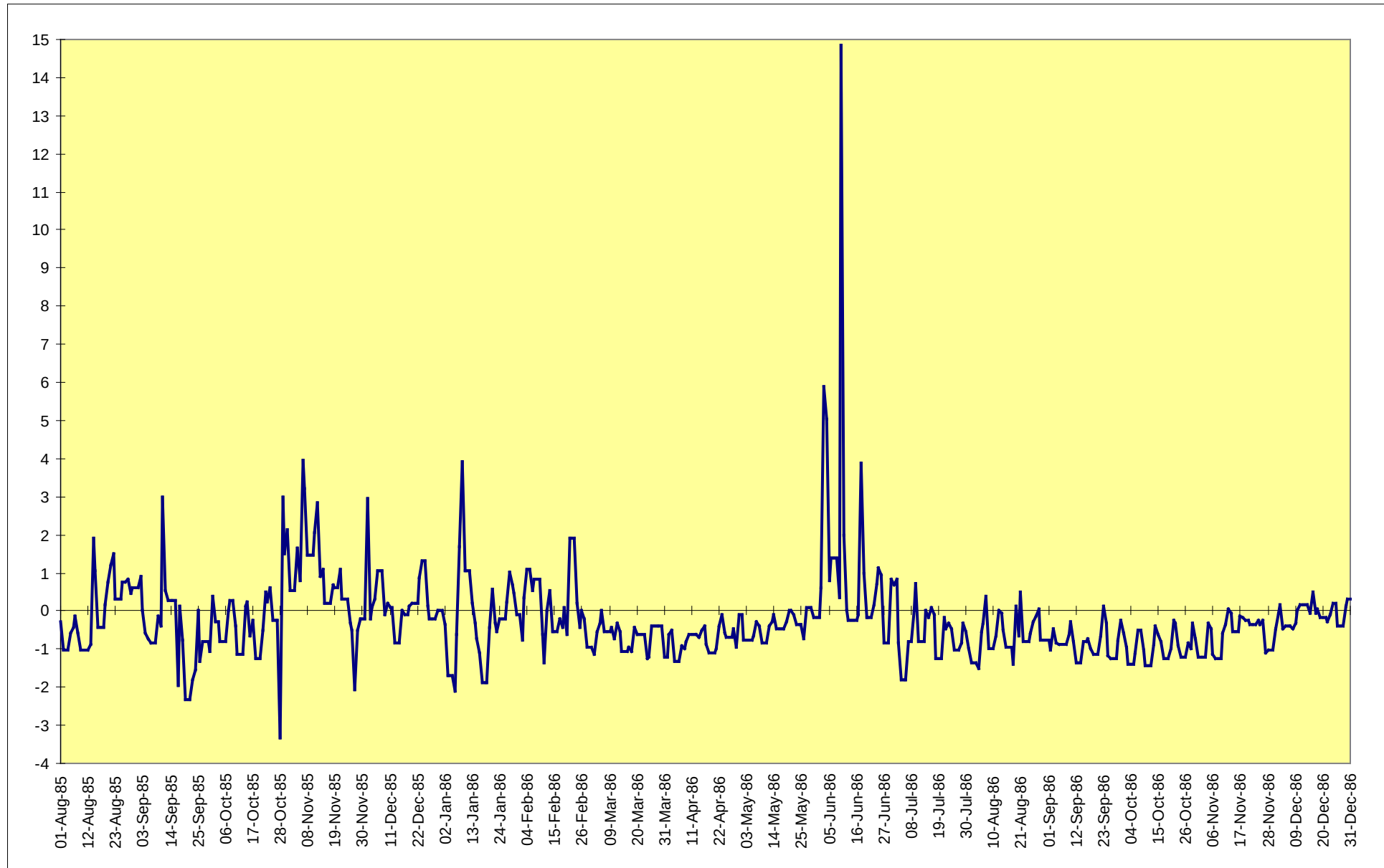
Figure 3.6. Exchange Rates^a Evolution, 1986
(pesos per dollar)



a. Free (1) is the free (sell) exchange rate offered in Mexico, Free (2) that offered by exchange houses in the United States near to the Mexico-U.S. border.

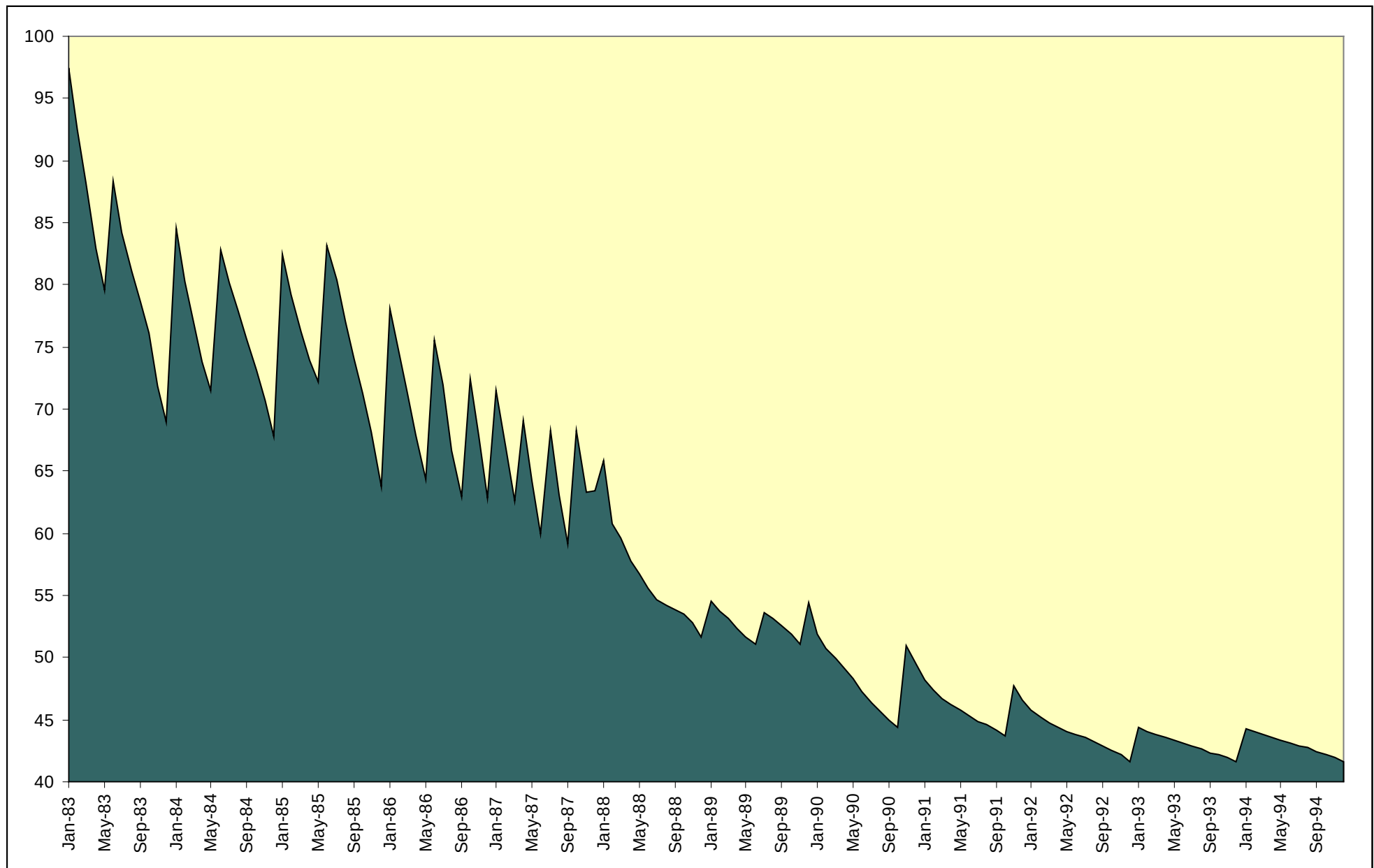
Source: Elaborated with data from Banco de México(d).

Figure 3.7. Differential between Mexican and U.S. Peso-Dollar Exchange Rates, 1985-86
(percentages)



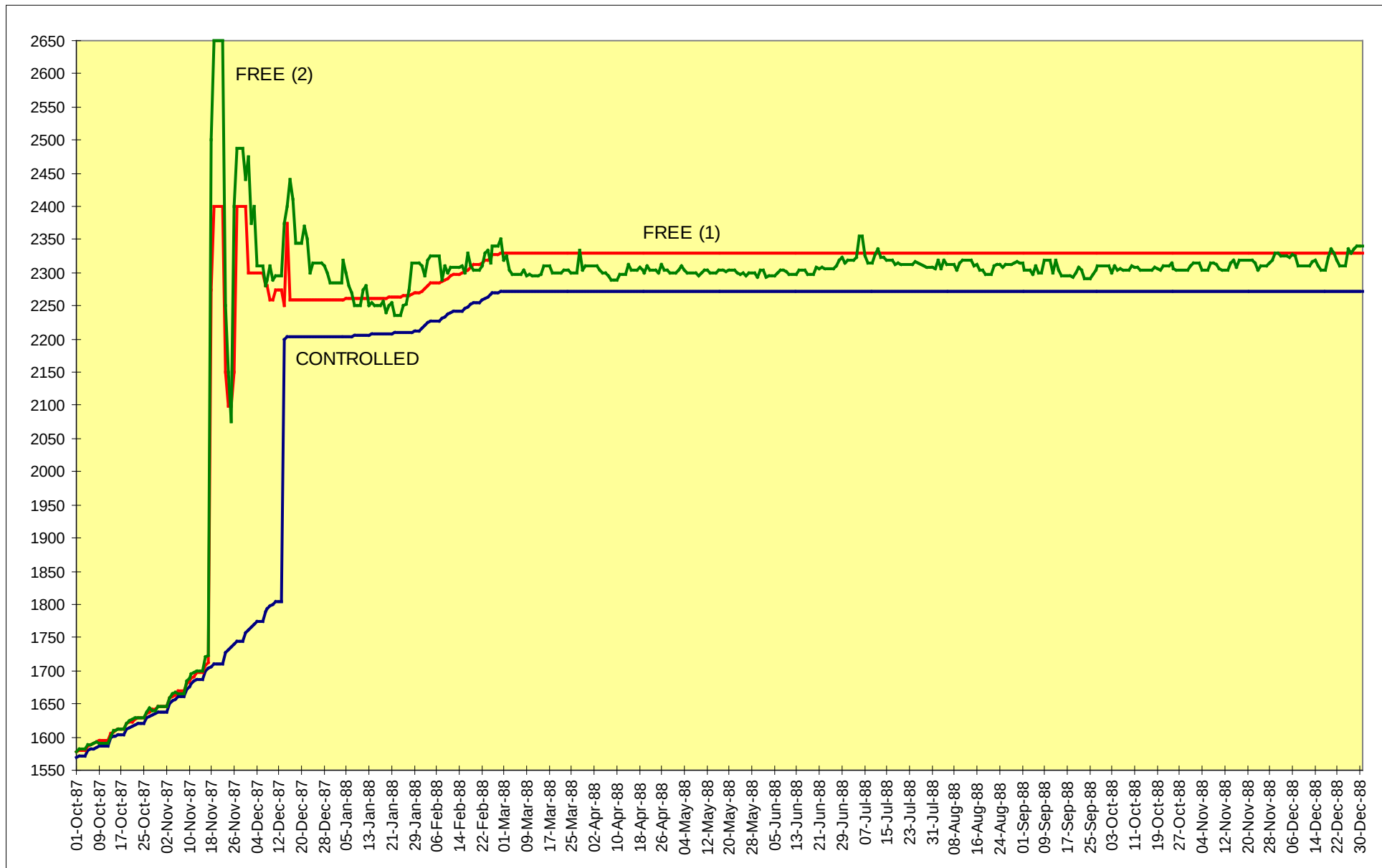
Source: Calculated with data from Banco de México(d).

Figure 3.8. Real Minimum Wage, 1983-94
(June 1970=100)



Source: Elaborated with data from Table A27.

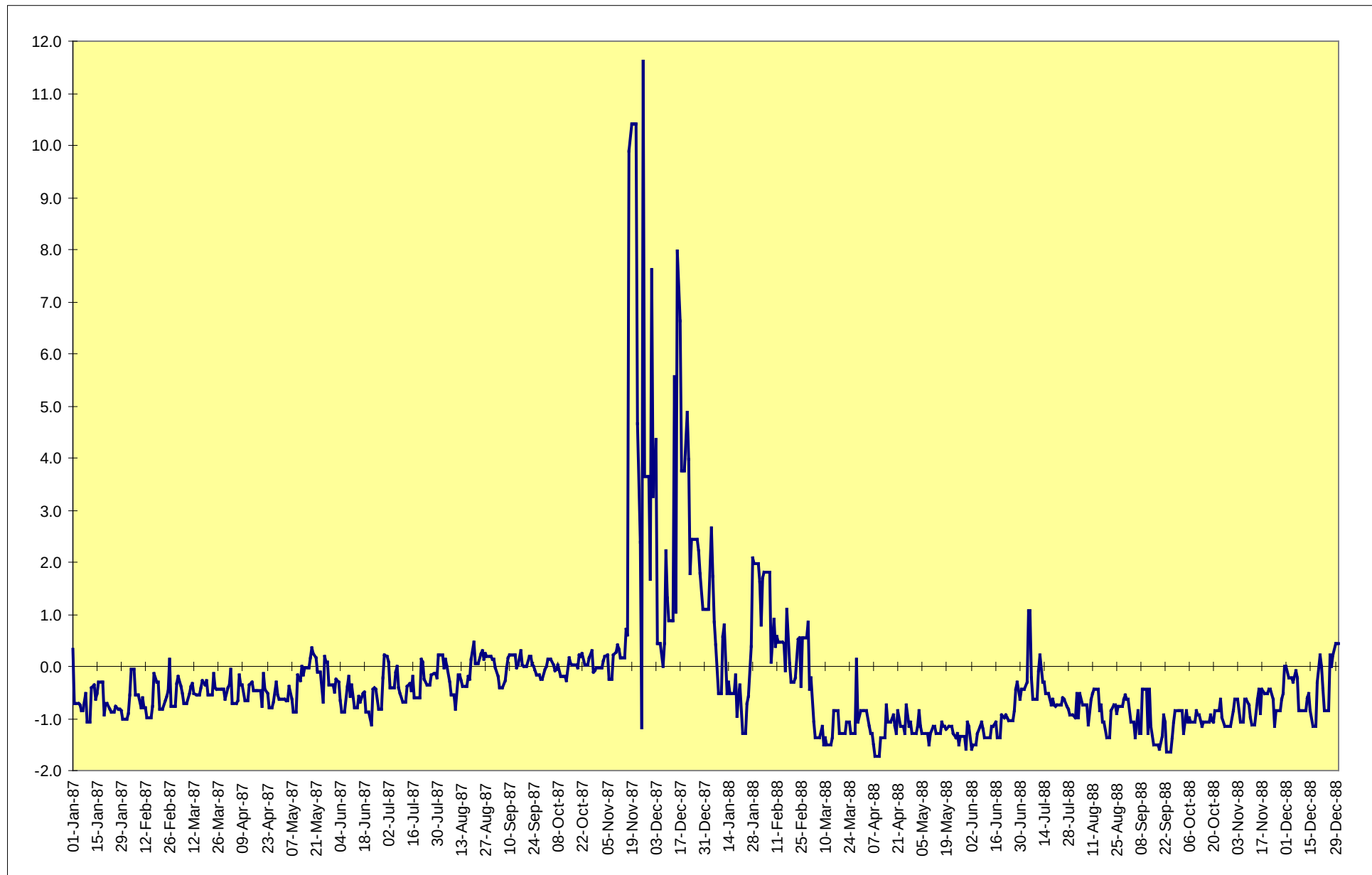
Figure 3.9. Exchange Rates^a Evolution, 1987-88
(pesos per dollar)



a. Free (1) is the free (sell) exchange rate offered in Mexico, Free (2) that offered by exchange houses in the United States near to the Mexico-U.S. border.

Source: Elaborated with data from Banco de México(d).

Figure 3.10. Differential between Mexican and U.S. Peso-Dollar Exchange Rates, 1987-88
(percentages)



Source: Calculated with data from Banco de México(d).

3.3.2. SUCCESSFUL ADJUSTMENT WITH SCARCE EXTERNAL RESOURCES, 1988-89

The devaluation of the controlled exchange rate was part of a comprehensive package. Two days later a radical stabilisation programme -that followed heterodox lines- was unveiled, with the aim of bringing down inflation fast. Christened as the Economic Solidarity Pact (PSE, that quickly became known as the *Pacto*), it brought together the main organisations of workers, peasants and business, along with the government, in a common effort to attain that objective.⁶⁶ The key presentational feature of the PSE was that all economic players were to make sacrifices. Contrary to other (failed) heterodox stabilisation attempts, the PSE was very flexible; regular meetings took place to follow recent developments and suggest changes (Table 3.6). When the agreed stage was about to expire (or before, if called by the government) a new meeting would agree on the features, duration and targets of the stage that was to follow. That flexibility was fully exploited by the government. Several key prices - wages, public goods and services, the peso/dollar parity- were supposed to move at a downward pace. However, a radical turn was taken from phase 2 (after a correction of relative prices had been allowed), and those key prices were virtually frozen. Inflation started to fall rapidly in March, and would close the year at 51.7 percent (see Table A5).

With no access to the international capital markets, it was impossible to assist the PSE with external savings. However, thanks to the last round of negotiations reached with the commercial banks (see Chapter 6), loans had been received during 1987 and 1988 (the last tranche was received on 30 March), and the stock of international reserves was high (see Table A23). Those reserves were put to use when the strengthening of the peso brought a deterioration in the external accounts. The adjustment on public expenditure was severe, and the government was careful to postpone as much as possible the expenditure authorised in the budget so that, when eventually spent, those resources would have been eaten away by inflation. On the other hand, the Tanzi effect lessened as inflation fell. As early as May 1988, President De la Madrid was speaking boldly of the need to crush inflation; the final objective of the *Pacto*, he said, was to achieve a yearly inflation of around 5 percent.⁶⁷

Arguably the biggest challenge to the PSE was not economic, but political. Many saw it as an electoral ploy, to reduce inflation temporarily and bolster the chances of the official candidate, Carlos Salinas, to win the presidential election. A devaluation was thus expected, as in 1982, shortly after the election. The attack against the peso that followed the election was also fuelled by the surprisingly good results shown by the main opposition candidate.⁶⁸ Even as real interest rates increased sharply, international reserves experienced a big drainage: from an all-time high of \$16.4 billion at the end of April, they plummeted to \$6.7 billion at December 1988 (see Table A23). However, the clearest signal that the demand for dollars was met at all times was that the free exchange rate in the U.S. very rarely offered a better price than the one that prevailed in Mexico (see Figures 3.9, and 3.10).

⁶⁶ To obtain the support of workers and peasants -crucial because of the real wage reduction that any attempt to reduce inflation would demand- was relatively easy because of the strong corporatist nature of the Mexican state. For example, the Confederation of Mexican Workers (CTM) -by far the most important union in the country- and the National Confederation of Peasants (CNC) had been pillars of the Institutional Revolutionary Party (PRI) -that has yet to lose a presidential election since its foundation in 1929.

⁶⁷ Speech pronounced on 6 May 1988, during a meeting of support for the PSE, reproduced in Nafinsa (1988bf).

Table 3.6. Salient Features of the Economic Solidarity Pact (PSE), 1987-88

Phase 1. Signed: 15.12.87; Agreed Duration: 16.12.87 to 29.02.88
- 21.9 percent devaluation of the controlled exchange rate; - Average increase in public prices of 81 percent. - Reduction of the maximum tariff from 40 to 20 percent; - Minimum wage increase of 15 percent in December, and 20 percent in January; - Period to agree on the prices of a basket of essential goods;
Phase 2. Signed: 28.12.88; Agreed Duration: 01.03.88 to 31.03.88
- Exchange rate fixed at the level present on February 29; - Prices for public goods and services kept fixed; - Increase of 3 percent to the minimum wage; - Zero increase to the prices of the goods in the basic basket; - Through negotiation with the private sector, freeze of certain key prices.
Phase 3. Signed: 27.03.88; Agreed Validity: 01.04.88 to 31.05.88
- The exchange rate continues fixed at the February 29 level; - Prices for public goods and services kept fixed; - Zero increase to the minimum wage; - Zero increase to the prices of the goods in the basic basket;
Phase 4. Signed: 22.05.88; Agreed Validity: 01.06.88 to 30.08.88
- The exchange rate continues fixed at the February 29 level; - Prices for public goods and services kept fixed; - Zero increase to the minimum wage; - Zero increase to the prices of the goods in the basic basket;
Phase 5. Signed: 14.08.88; Agreed Validity: 01.09.88 to 30.11.88
- The exchange rate continues fixed at the February 29 level; - Prices for public goods and services kept fixed; - Zero increase to the minimum wage; - VAT reduction on processed foodstuffs and medicines from 6 to 0 percent; - Reduction of 30 percent on the income tax for people earning up to four minimum wage; - Agreement with business organisations to aim for a 3 percent nominal price reduction in their products (prices are reduced effectively by 2.87 percent).
Phase 6. Signed: 16.10.88; Agreed Validity: 17.10.88 to 31.12.88
- Unique agreement: Extend Phase 5 validity to 31 December 1988. ⁶⁹

Source: Constructed with data from Aspe (1993, 31-32) and Nafinsa (1988bb, 1988bc, 1988bf, 1988bg, 1988bh, 1988bi, 1991ba).

As president-elect, Salinas signed a new PSE phase, with the peso fixed. A few days later, after his administration started, a new one that returned to a crawling peg from the first day of 1989 (see Table 3.7), implying a yearly devaluation of 16.06 percent. That eliminated any expectations of an abrupt devaluation. The first year of the Salinas administration would be dominated by the renegotiation of the public external debt owed to commercial banks, that would be concluded until February 1990 (see Chapter 6). Therefore, 1989 was another year where the adjustment process continued without external borrowing. The success of the PSE was evident in the macroeconomic evolution observed during the year. Inflation moved under the 20 percent level during the last three quarters of the year (though it started to increase again after August), while PSBR plunged from 12.5 percent of GDP in 1988 to 5.6 percent. Even as inflation plummeted, GDP growth was positive, with 1.2 percent in 1988 and 3.3 percent the following year. A relative stabilisation had been achieved (see Tables A1, A3, A4 and A5).

⁶⁸ The election was in fact marred by a massive fraud, and it is open to question if Salinas really won the Presidency. The possibility of problems because of public rejection to the fraud increased economic uncertainty.

⁶⁹ The extension of Phase 5 was crucial because it ended on 30 November, the last day of the De la Madrid government. Phase 6 therefore would be officially valid during the first month of the Salinas administration. While De la Madrid had always signed the

3.4. ECONOMIC TRANSFORMATION WITH ABUNDANT EXTERNAL RESOURCES, 1990-93

During a four-period, 1990-93, the Mexican government seemed to reap the benefits from the adjustment followed since 1982, while pursuing a path of even more radical reforms. The *Pacto* -under different names that paid tribute to what was presented as the priority of the moment (such as economic growth or job creation)- continued to be the main instrument through which the government fought inflation and mapped the road that economic policy was to follow. With its clout over unions and its influence over business organisations, what the government was to do anyway was presented as agreements within the *Pacto* (Table 3.7). All the radical courses that were taken were thus presented as decisions taken by all economic sectors.

Table 3.7. Salient Features of the PECE^a, 1989-94

Phase 1. Signed: 12.12.88; Agreed Validity: 01.01.89 to 31.07.89
- Public prices with a heavier weight in the CPI to be kept constant; - Crawling peg of the peso-dollar exchange rate: one peso per day, from 1 January 1989; - Increase of 8 percent to the minimum wage;
Phase 2. Signed: 18.06.89; Agreed Validity: 01.08.89 to 31.03.90
- Public prices are kept constant; - One peso per day crawling peg continues; - Increase of 6 percent to the minimum wage;
Phase 3. Signed: 03.12.89; Agreed Validity: 04.12.89 to 31.07.90
- Public prices are kept constant; - One peso per day crawling peg continues; - Increase of 10 percent to the minimum wage;
Phase 4. Signed: 27.05.90; Agreed Validity: 28.05.90 to 31.01.91
- Increase in energy prices in a 6-12 percent range; - The crawling peg is reduced to 80 (peso) cents per day; - Zero increase to the minimum wage;
Phase 5. Signed: 11.11.90; Agreed Validity: 12.11.90 to 31.12.91
- Increase in energy prices in a 10-33 percent range; - The crawling peg is reduced to 40 (peso) cents per day; - 18 percent increase to the minimum wage; - Tax reduction for workers with reduced incomes;
Phase 6. Signed: 10.11.91; Agreed Validity: 11.11.91 to 31.01.93
- Increase in energy prices in a 15-55 percent range; - The crawling peg is reduced to 20 (peso) cents per day. Exchange controls disappear, and an exchange rate band is established; - 12 percent increase to the minimum wage; - VAT is reduced from 15 and 20 percent to a unified rate of 10 percent.
Phase 7. Signed: 20.10.92; Agreed Validity: 20.10.92 to 31.12.93
- Increase in energy prices not to exceed 10 percent; - The crawling peg is increased to 40 (peso) cents per day; - 8 percent increase to the minimum wage;
Phase 8. Signed: 03.10.93; Agreed Validity: 03.10.93 to 31.12.94
- Increase in energy prices not to exceed 5 percent; - Tax reduction for people with reduced incomes; top income tax rate reduced from 35.0 to 34.0 percent; several tax incentives introduced; - The crawling peg stays at 40 (peso) cents per day; - 7 percent increase to the minimum wage;

a. PECE is the Spanish acronym that stands both for Pact for Economic Stability and Economic Growth (phases 1 to 6) and Pact for Stability, Competitiveness, and Employment (phases 7 to 8).

Source: Constructed with data from Aspe (1993, 31-32) Téllez and Jarque (1993, 141-142) and Nafinsa (1989ba, 1989bb, 1990ba, 1990bb, 1991ba, 1991bb, 1992bb, 1993ba).

previous agreements, Phase 6 was signed by President-Elect Salinas, thus ensuring the markets the continuity on economic policy, and particularly on the exchange rate policy.

One was privatisation. The De la Madrid administration mostly sold or closed small or virtually non-existent public enterprises or bodies (such as public trusts). Even the word “privatisation” had been avoided, while emphasising that the Mexico was still a “mixed” economy, constituted by the public, private and social (such as union-owned enterprises or co-operatives) sectors. On the other hand, open privatisation of important SOEs, with almost an ideological zeal, became the norm of the Salinas regime, bringing important revenues for the Exchequer, notably in 1991-92 (Table 3.8).⁷⁰ Privatisation revenues were deposited in a “Contingency Fund” established in December 1990. As these were only-once incomes, those resources would be used to cushion any shocks or to reduce public debt (external or internal). For example, a big operation -an external debt reduction of \$7,171 million- was announced in June 1992. It was partially financed with the selling of shares of the telephone company, resources from the Fund, and also with additional external indebtedness⁷¹ (Nafinsa 1992ba, 5). Even without considering those considerable revenues, the fiscal balance actually moved into a surplus in 1992 (1991 if privatisations are considered, see Table A3). While increasing during 1990, inflation started to creep downwards after 1991. Since June 1993 inflation reached a one-digit level, and would close in 1994 at a rate of 7.05 percent, the lowest since January 1973 (see Tables A4 and A5).

Another was FDI. In May 1989 a set of rules that considerably reduced the discretionary power to authorise foreign investments were published. Another important feature of the new framework was that it allowed foreign investments in the shares of Mexican companies, through the establishment of “neutral” trusts of funds.⁷² Something that would soon become crucial for the economy was that since December 1990 it was allowed that foreigners would purchase internal debt: the doors became open for short-term capital to buy government securities. Moreover, in December 1993 a new Foreign Investment Law replaced the complex and inward-looking legislation enacted exactly 21 years before.

Table 3.8. Privatisation Revenues, 1988-95

Year	Pesos ^a	Million Dollars ^b	% GDP ^c	Year	Pesos ^a	Million Dollars ^b	% GDP ^c
1988	1190.1	519.8	0.30	1992	30124	9734.2	2.96
1989	784.6	315.9	0.15	1993	5588	1793.8	0.50
1990	1600.0	563.7	0.23	1994	5081	1505.4	0.41
1991	28411.0	9421.1	3.28	1995	721	112.3	0.05

a. Billion pesos, 1988-92; million of new pesos, 1993-95.

b. The amount in pesos divided by the average exchange rate observed during the year. As the privatisation revenues were obviously not evenly spread throughout the year, the amount is a rough estimate of the real figure.

c. The amount in pesos divided by the current GDP value.

Source: Constructed with data from Banco de México (1989a to 1995a), Tables A1 and A17.

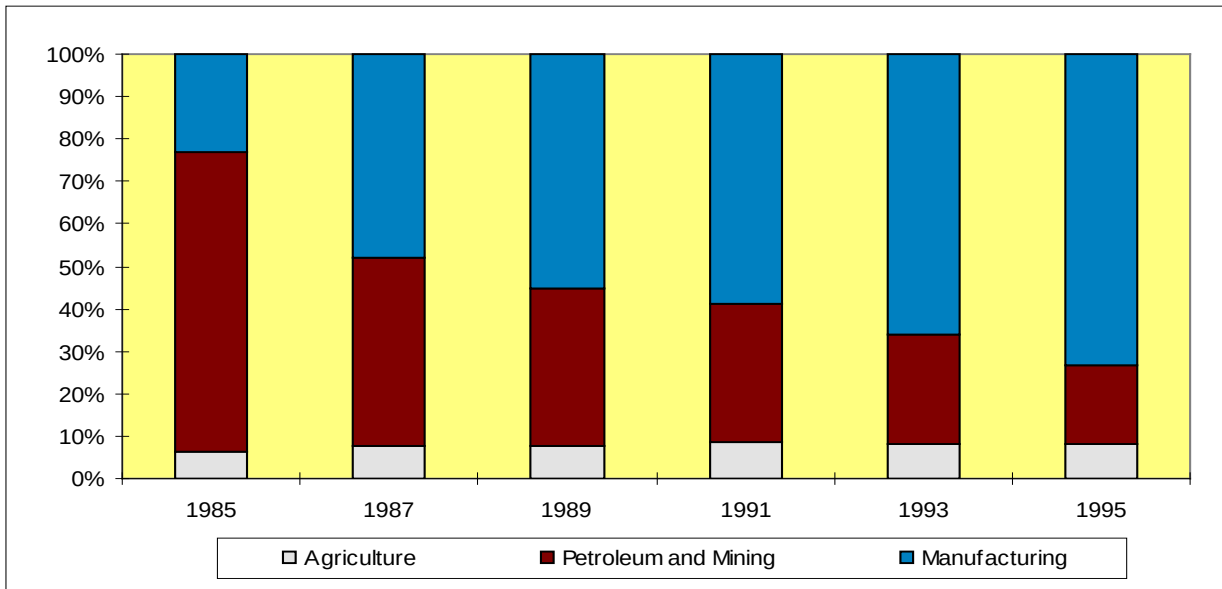
The opening of the economy continued. A radical and unilateral slashing of tariffs had taken place under the first phases of the PSE. It was followed by proposing to the U.S. government, during the first half of 1990, the negotiation of a free trade area (FTA) between the two countries. Canada later

⁷⁰ For example, in the 1983-88 period the total revenues for privatisations amounted to \$2.7 billion dollars -an average of \$450 million per year. In 1991-92 the total was \$19.2 billion (calculated with data from Banco de México (1991a, 64) and Table 3.8).

⁷¹ This was done as, with fresh loans, the government covertly bought Mexican Brady bonds, traded with a discount.

entered the fray. It took much longer than expected, but in the last quarter of 1993 the Legislative branches of the three countries gave their approving nod to the North-American Free Trade Agreement (NAFTA), that came into life the first day of 1994. Simultaneously, other FTAs were negotiated with several Latin American countries. Exports diversified considerably (Figure 3.12).⁷³

Figure 3.12. Composition of Exports, 1985-95^a
(percentages)



a. Not including exports from the in-bond (maquiladora) industry. Manufacturing exports would have a much bigger proportion of the total if they were considered.
Source: Table A15.

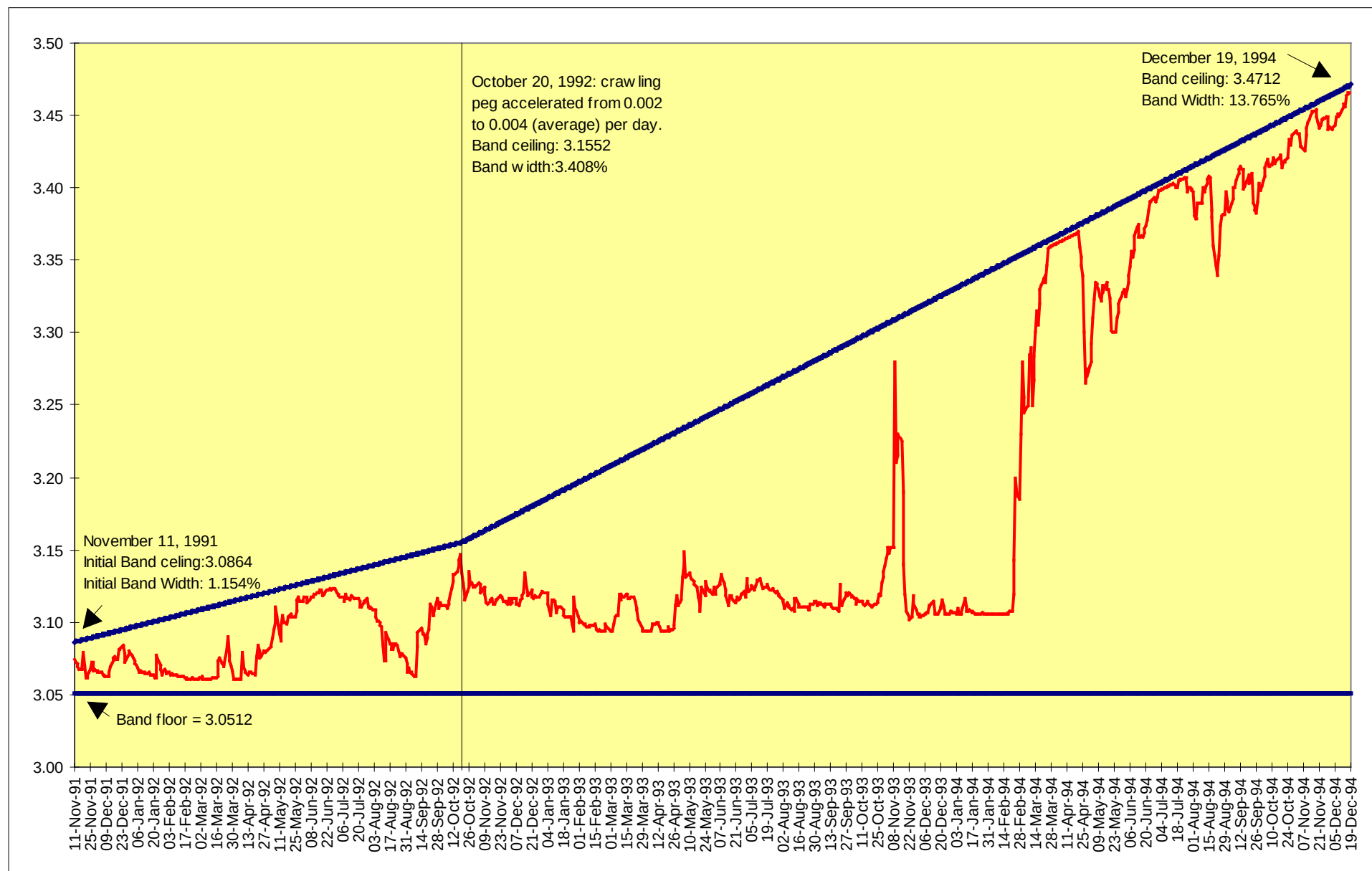
While the exchange rate continued its role as a nominal anchor to help in the fight against inflation, the structural changes -and particularly the good expectations on the future of the country- attracted a massive flow of foreign portfolio investment (FPI) into the country, that pressured the peso to appreciate. In order to have a margin of action, in November 1991, and as part of a new stage of the PECE, an exchange rate band was established, with a fixed floor, and the ceiling increasing every day a fixed amount. The peso would be free to move freely within the band. Though its width was small at its beginning, the crawling peg that moved the ceiling expanded it progressively (Figure 3.13).

The timing of the ruling that allowed FPI in public internal debt was excellent, considering that the current account deficit started to increase explosively after 1988 (Figure 3.14). As private investment and consumption increased, internal savings plummeted and were substituted by external savings (see Table A2), invested both in public bonds and shares. While the government had achieved an equilibrium or even huge surpluses in its finances, the current account deficit was fuelled by the private sector. Since 1991 uncertainty started on the sustainability of the external imbalance, as FPI was much bigger (and arguably much more volatile) than FDI. It is worth to quote at length the considerations that the Bank of Mexico presented to address those concerns:

⁷² Through this funds, foreigners would buy shares in Mexican companies, with all the rights of Mexicans, other than the voting rights, that were curtailed.

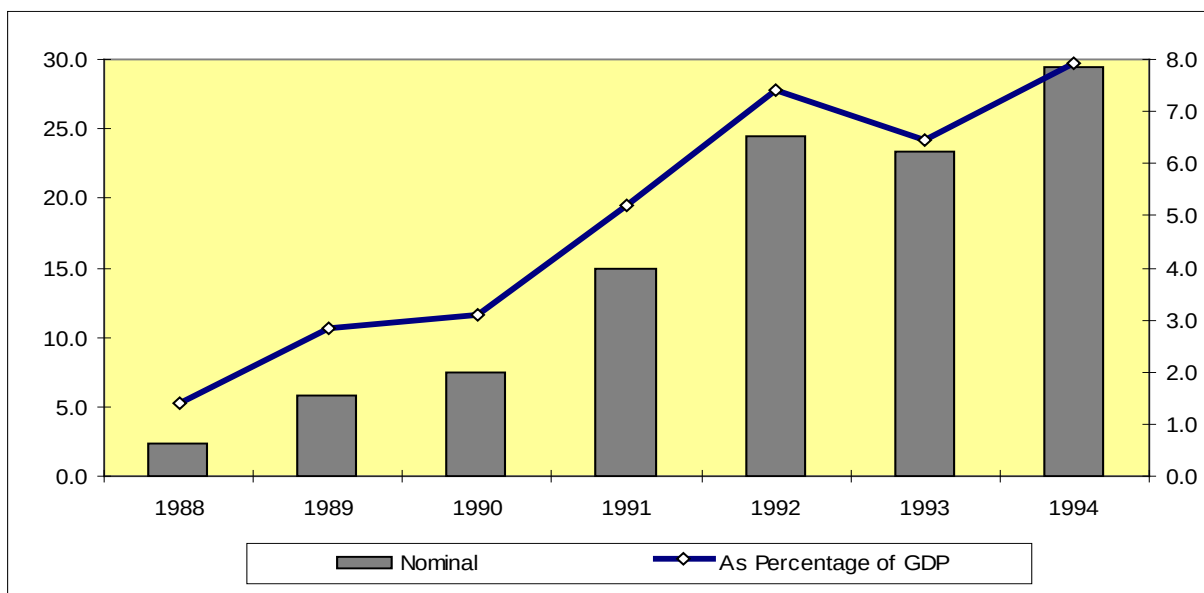
⁷³ For other important structural-change measures, for example in deregulation of economic activities or the radical transformation of agricultural ownership see Aspe (1993), Cárdenas (1996).

Figure 3.13. Exchange Rate Band and Peso-Dollar Exchange Rate. 1991-94
(pesos per dollar)



Source: Elaborated with data from Banco de México(d).

Figure 3.14. Current Account Deficit, 1988-94
(million dollars and percentages)



Source: Elaborated with data from Table A14.

Some observers have expressed certain uneasiness about the magnitude and composition of the inflows of private capital that have taken place during the last two years. That because of the supposedly potential volatility of part of those flows because of unexpected changes in the economic conditions, and the eventual difficulties that would be confronted to finance the current account deficit. It should be pointed out that the volatility of external capital flows depends on great measure on the capacity of governments to implement and keep a coherent macroeconomic policy. Capital flows instability is generally consequence of economic policy instability or lack of coherence... In a solid macroeconomic environment, *with public finances that do not exert the current account of the balance of payments, the deficit in that account will persist only while there is also a surplus in the current account that brings it about and finances it.* The macroeconomic management and structural change that the Mexican external sector has experienced has *strengthened the economy's capacity to confront external disturbances...* Moreover, *the high level of the international reserves... provides margins of manoeuvre and time adequate to guarantee the effectiveness of the measures that would need to be adopted before any internal or external blows* (Banco de México 1991a, 71-72. Emphasis added).

As the current account deficit continued to increase, that was the main argument by the government: with public finances in balance or surplus, that deficit was caused by a vibrant private sector⁷⁴; If the external flows that financed the deficit diminished or even came to a halt, so would happen to the current account. Moreover, it was considered that the increasing international reserves at the central bank (see Table A23) sufficed to deal with any sudden shock. The edifice constructed seemed quite solid. Admittedly, the shocks that would hit and eventually smash it to pieces would have been impossible to foresee by any government.

⁷⁴ A notion first proposed by Nigel Lawson, chancellor of the Exchequer of the United Kingdom, in a speech before the IMF, and thus known as the "Lawson doctrine". See Lawson (1992).

3.5. UNEXPECTED SHOCKS AND COLLAPSE, 1994

A first shock took place when the approval of NAFTA became uncertain, as lobbying against it in the U.S. Congress heavily politicised the issue. In the weeks before its approval, on 17 November⁷⁵, capital outflows dented international reserves by almost \$4.5 billion. They were quickly recuperated - reaching again historical highs- after it was approved (see Table A23). However, the speed with which uncertainty would bring huge capital outflows was clearly demonstrated. Few days after the NAFTA approval, Luis Donaldo Colosio was nominated as the official candidate to succeed Salinas. Even if the appointment was not a surprise, Colosio was not a known figure among foreign investors. While it was clear that he would follow the path of reform begun in 1982, specifics were unknown.

The first day of 1994 was supposed to mark a high point; the official commencement of NAFTA. However, it was marred by the outbreak of a guerrilla movement in the southern state of Chiapas. Well orchestrated, the uprising by the self-denominated Zapatista Army for National Liberation (EZLN) smashed any notion that the economic reforms were unchallenged. But that problem was nothing compared to the profound shock caused by the assassination of Colosio on 23 March (the last time something similar had happened was in 1928). The first measure by the government was to decree 24 March a day of national mourning (thus closing the financial markets). Also on 24 March, the U.S. announced that the swap arrangement between the Bank of Mexico and the Federal Reserve System (see Table A24) would be increased, from \$1.0 billion to \$6.0 billion. That offer, initially temporary, was later made permanent. Along with the Bank of Canada -a swap line of C\$1.0 billion was set up- a permanent accord, the North American Framework Agreement (NAFA) was established. Also, as it had done few days after the EZLN uprising, on 24 March the government called on the *Pacto*, merely to ratify the terms agreed the previous October (Table 3.9). Also on the same day, the Organisation for Economic Co-operation and Development announced that it had accepted Mexico as a member. Interest rates were increased, and a massive swapping of Cetes (internal debt denominated in pesos) for Tesobonos (payable in pesos, but indexed to the exchange rate) started.⁷⁶ Nevertheless, during the following month the reserves were drained by \$10.4 billion as Bank of Mexico intervened heavily to stop the peso from breaking the exchange rate band (see Figure 3.13). The months that followed were full of uncertainty because of the August election (won by Ernesto Zedillo, who had been nominated in Colosio's place). In September another high-ranking political figure was also assassinated. Expectations grew that the end of the administration would end, as in 1976 and 1982, with an abrupt devaluation.⁷⁷ When the peso was abruptly devalued within three weeks of the start of the Zedillo administration, the Salinas government was heavily criticised, both for acquiring a huge, short-term *de facto* external debt (Tesobonos were mostly owned by foreigners), and for not raising interest rates enough. That monetary policy was too loose is arguably the most repeated charge made against the Bank of Mexico, independent since 1 April 1994 (Mancera 1995).⁷⁸

⁷⁵ The Canadian Parliament had given its assent previously. It was common knowledge that (with the government having a landslide majority) the approval by the Mexican Senate was a mere formality.

⁷⁶ That swapping process will be studied in detail in Chapter 5.

⁷⁷ In the popular perspective, all the governments from Echeverría to Salinas ended up in a crisis, including the De la Madrid administration, that ironically enough suffered five years of continuous crisis, and managed in the last one to stabilise the economy and the peso.

⁷⁸ However, that autonomy was curtailed by the fact that exchange rate policy was still decided by the Executive, through the Ministry of Finance.

Table 3.9. Salient Features of the PECE and PBEC, 1994

PECE^a
Phase 8. Signed: 12.01.94; Agreed Validity: 13.01.94 to 31.12.94
- To ratify the terms of the Pact signed on 3 October 1993
Phase 9. Signed: 24.03.94; Agreed Validity: 25.03.94 to 31.12.94
- To ratify the terms of the Pact signed on 3 October 1993 ⁷⁹
PBEC^b
Phase 1. Signed: 24.09.94; Agreed Validity: 01.08.89 to 31.12.95⁸⁰
Proposals to the (Zedillo) Administration that would start on 1 December 1994:
- A balanced budget, inflation of 4.0 percent, and GDP growth of 4.0 percent for 1995;
- Tax simplification and reduction in certain taxes for business;
- Increase in the tax credit to those receiving a maximum of two minimum wages;
- Maximum limit for energy price increases: 4.0 percent;
- The crawling peg of the peso is unchanged at 40 cents per day; ⁸¹
- Minimum wage increase of 4.0 percent plus a certain percentage for productivity, to be agreed later.
Phase 2. Signed: 20.11.94; Agreed Validity: 04.12.89 to 31.12.95
- To ratify the terms of the Pact signed on 24 September 1994 ⁸²
Phase 3. Signed: 20.12.94; Agreed Validity:
- Increase to the minimum wage of 7.0 percent;
- Increase in the exchange rate band ceiling of 15 percent.

a. Pact for Stability, Growth, and Employment.

b. Pact for Welfare, Stability, and Growth.

Source: Nafinsa (1994ba, 1994bb).

The December devaluation stands out as one of those economic events where not only very different hypotheses are offered to explain it, but where some of them even present ideas that completely clash between them. With respect to the monetary policy followed in 1994, Leiderman and Thorne point out that

... despite a marked fall in foreign exchange reserves and despite the substantial exchange rate pressure, monetary aggregates were growing quite rapidly in 1994, and there was no active reliance on interest rates hikes to defend international reserves and the exchange rate band.⁸³

A position difficult to reconcile with the evolution of monetary aggregates and interest rates (Figures 3.15 and 3.16). M1 shows a clearly decreasing trend after March, while M4 falls sharply during the first quarter of the year, to stagnate and increase slightly during the second semester, but far from growing "quite rapidly" -at least of compared to the 1992-93 trend (see Tables A8, A9 and A10). On the other hand, the three-month Cetes rate followed an inverse behaviour to the evolution of international reserves (Figure 3.17). A much-criticised fall in nominal interest rates -though real interest rates stayed at high levels- started at the beginning of August, long after international reserves had stabilised (in 21 April, the reserves stood at US\$17.54 billion, while on 10 November their level was \$16.37 billion).

⁷⁹ As the *Pacto* meeting took place on the wake of the Colosio assassination -precisely to present a facade of unity and stability-, there was also a political agreement, condemning all violence.

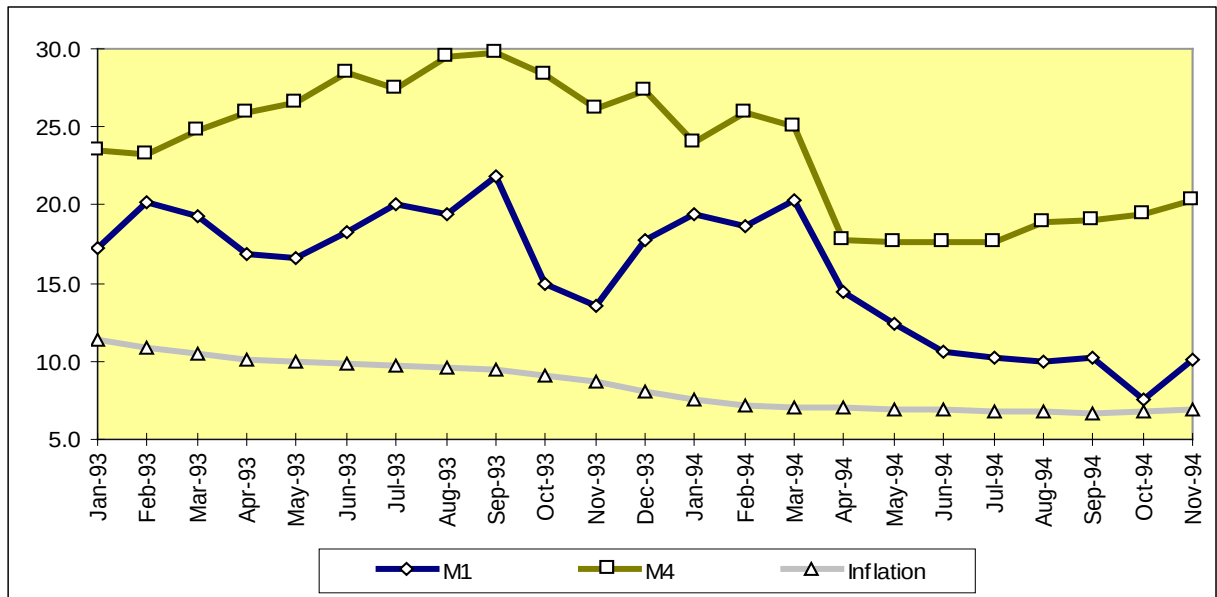
⁸⁰ While this first phase of the PBEC was full of recommendations for the new administration, and it proposed the phase to run for more than a year into the Zedillo administration, it was signed by President Salinas and members of his administration, with no official participation from President-Elect Zedillo or any representatives of his.

⁸¹ The first day of 1993 a new currency -the new peso- was introduced, where three zeroes had been knocked out off the old peso, so the 40 cents of the old peso turned into 4/1000 of the new peso.

⁸² This was signed by President-Elect Zedillo.

⁸³ Leiderman, Leonardo and Alfredo Thorne (1995), "Mexico's 1994 crisis and its aftermath: is the worst over", University of Tel Aviv (unpublished). Quote in Gil Díaz and Carstens (1997, 176).

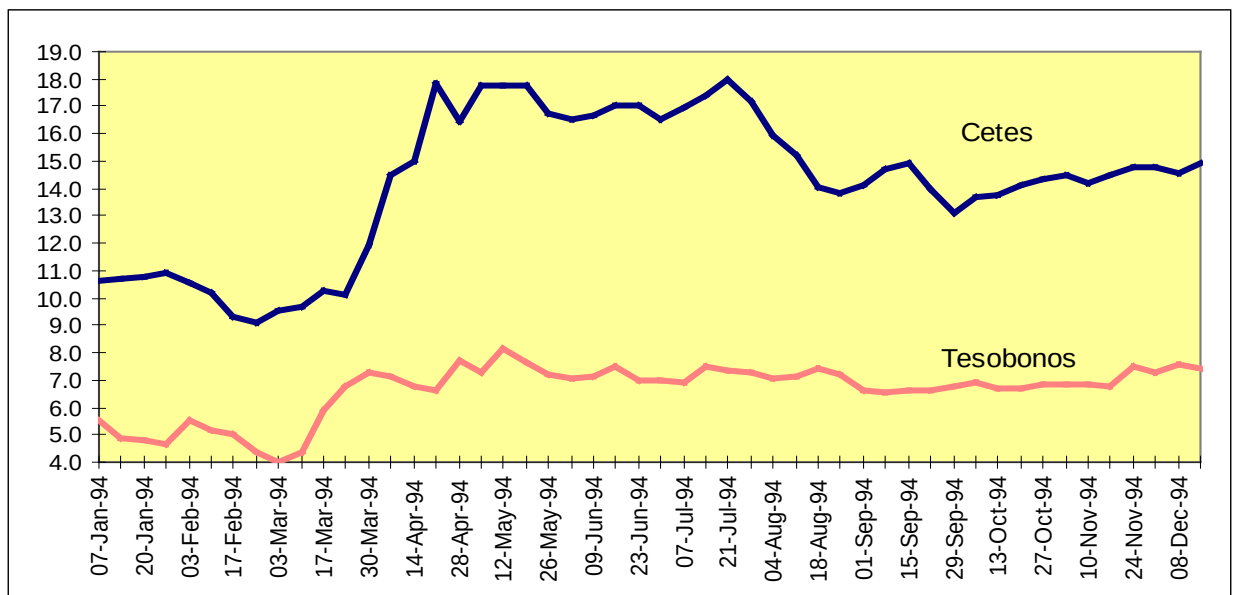
Figure 3.15. Yearly Growth of Monetary Aggregates and Prices^a, 1993-94
(percentages)



a. With respect to the same month of the previous year. For the monetary aggregates' definitions see Table A8.
Source: Elaborated with data from Tables A5 and A10.

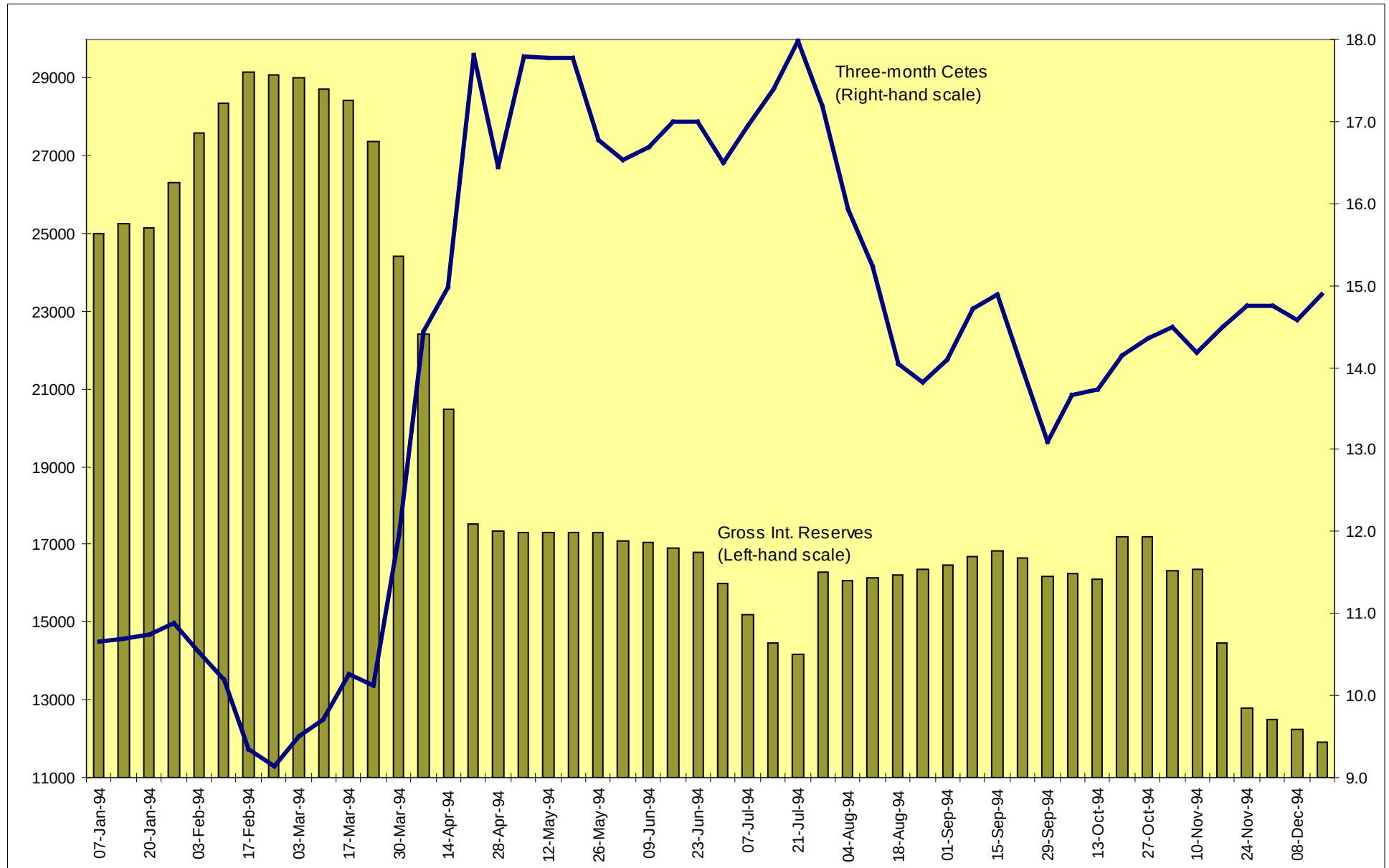
There is an even stronger argument to contend that monetary policy was tighter: Tesobonos has massively substituted Cetes. If investors considered them as good as, for example, U.S. T-Bills (adding a premium for Mexico's perceived country risk), the interest rate hike that should have taken place to compensate for the increased uncertainty on the future of the peso-dollar parity was unnecessary, as Tesobonos fully compensated for it. As Tesobonos quickly substituted Cetes during the last three-quarters of 1994, there was a moment from which the *benchmark interest rate* was not that Cetes, but the one offered by Tesobonos (Figures 3.16 and 3.18).

Figure 3.16. Cetes and Tesobonos Interest Rates^a, 1994
(percentage points)



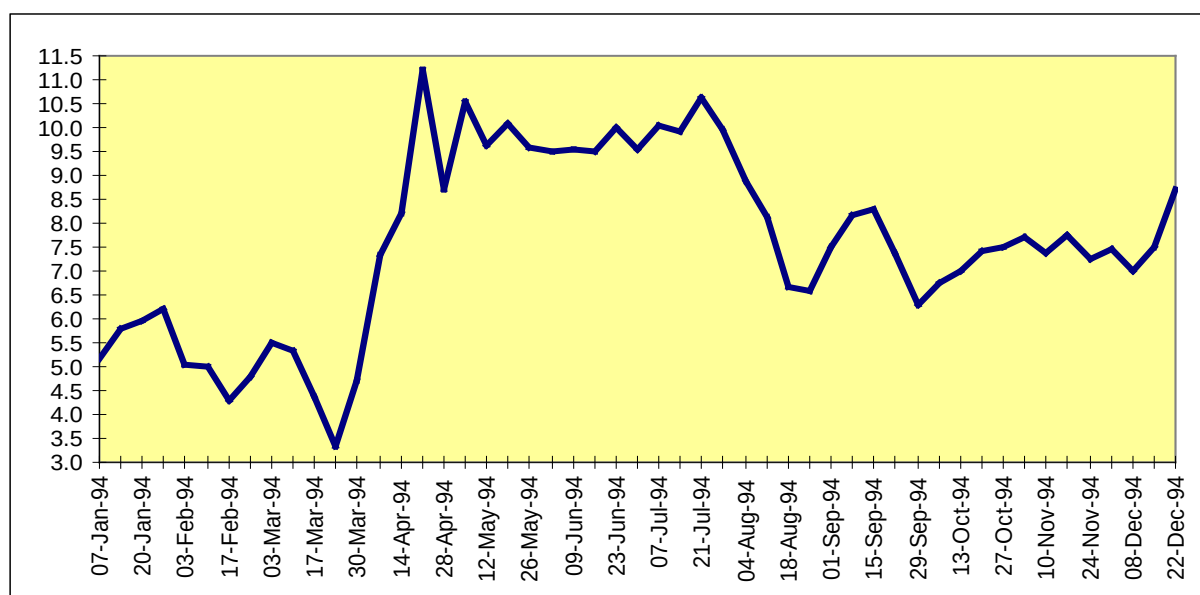
a. Three-month instruments in both cases.
Source: Elaborated with data from Tables A6 and B25.

Figure 3.17. Gross International Reserves and Cetes Interest Rates, 1994
(million dollars and percentage points)



Source: Elaborated with data from Tables A6 and A23.

Figure 3.18. Gap Between the Cetes and Tesobonos Interest Rates^a, 1994
(percentage points)



a. Three-month instruments in both cases.
Source: Elaborated with data from Table A6 and B25.

Internal gross indebtedness through Tesobonos surpassed that by Cetes from the weekly auction that took place on 21 April, 1994 (see Table B25), a tendency that would continue until the December devaluation. In many weeks that of Tesobonos dwarfed the amount of Cetes auctioned. Considering that the latter annulled or at least greatly diminished exchange rate risk perceptions by their holders, which were willing to accept a much inferior interest rate to that offered by Cetes, then the massive swapping in fact meant a tightening of monetary policy. Therefore, the fall in the Cetes interest rate observed since August -heavily criticised as a loosening of monetary policy- had no real impact, as most of internal debt in private (domestic and foreign) hands was already composed by Tesobonos, that had become the most important internal debt instrument in hands of private investors after June (see Figure 5.16). On the other hand, the interest rates offered by the Tesobonos stayed at the same level, fluctuating from mid-May until mid-December within the 6.5-7.5 percent range. Thus, the allegation that monetary policy was loose seems without solid foundations.

The charge that fiscal policy was also loose is more substantiated. PSBR was equivalent to 3.4 percent of GDP (3.0 percent considering privatisation revenues), while the economic deficit presented a surplus of 0.1 percent of GDP. A significant deterioration considering that in 1992 the PSBR was in surplus (0.5 percent of GDP, 3.4 percent with privatisation revenues, see Table A3). It is open to question if that fiscal loosening derived into the devaluation.⁸⁴ It certainly contributed (see Table 3.10) to a record current account deficit of \$29.4 billion dollars (7.9 percent of GDP). Following the already detailed rationale that the Bank of Mexico on the subject, if capital inflows diminished or stopped, then a fiscal adjustment, not only from the private sector, was imperative.

Another popular explanation for the abrupt devaluation is arguably the simpler one: the peso was devalued because it was overvalued. During the 1988-94 period it certainly appreciated in real

⁸⁴ For a brief overview of that argument by several analysts see Gil Díaz and Carstens (1996, 25-26; 1997, 182-183).

terms. However, the argument is again difficult to sustain, looking at different measures of the real exchange rate (RER), as presented by Gil Díaz and Carstens (1996, 7-15, see Tables A21 and A22). Moreover, without any sophisticated calculations, it can be argued that if the peso was overvalued in 1994 then that was also the case in 1993. With an inflation of 7.0 percent in 1994, it would be difficult to claim that the currency overvaluation during that year was the straw that broke the camel's back; moreover, as the peso devalued within the band after March, actually depreciating in real terms.

Table 3.10. Contribution of Aggregate Demand to GDP Growth, 1992-94

	Public Expenditures	Private Expenditures	Net Exports	Sum - GDP Growth
1992.1	0.26	6.51	-2.85	3.93
1992.2	-0.51	5.09	-3.27	1.31
1992.3	-0.83	7.89	-3.16	3.90
1992.4	1.09	3.15	-2.14	2.10
1993.1	-0.17	3.87	-1.31	2.40
1993.2	0.43	-1.20	1.01	0.24
1993.3	0.33	-2.66	1.48	-0.85
1993.4	-0.36	-1.01	2.34	0.97
1994.1	0.87	0.11	-0.30	0.68
1994.2	1.00	4.80	-0.99	4.81
1994.3	1.22	4.10	-0.79	4.54
1994.4	-0.47	5.86	-1.39	4.01

Source: Gil Díaz and Carstens (1996, Table 6).

Gil Díaz and Carstens (1996, 1997) explore in detail several of the academic articles that quickly emerged as a result of the Mexican crisis. Their conclusion is that only few gave some weight to the political shocks experienced by Mexico during 1994, and none the importance that those non-economic events deserved to explain the crisis. Independently of factors such as the fiscal loosening or the level of the RER, the Colosio assassination was a shock from which arguably the government was unable to recuperate. What started with a demolishing political blow it arguably ended with a loss of confidence on the new government's will to sustain the exchange rate, that was validated just a few weeks after taking office.

While the level of reserves had roughly kept their level until the first days of November, a new speculative attack started to drain them. An emergency secret meeting took place between key members of the incoming and outgoing governments on 20 November.⁸⁵ The Governor of the Bank of Mexico expressed that the peso was under attack ascribing it to political reasons (see Table 5.24), and pointed out that if the outflow of reserves continued then in a few days their level would soon reach the desired minimum of \$10 billion dollars. It was then discussed the convenience of devaluing the peso by 10-15 percent. Pedro Aspe, on the other hand, considered that capital flight was also explained by

⁸⁵ Ironically, all knew perfectly well each other, as those key members of the incoming Zedillo administration were also top officials of the lapsing Salinas government. Zedillo had been Minister of Planning and Budget and of Education in the Salinas Cabinet. Jaime Serra (to be named Minister of Finance) was Minister for Trade and Industrial Development, while Luis Téllez (to be Chief of Staff) had been a top official at the Ministries of Finance and Agriculture. On the side of the outgoing administration, were President Salinas and Pedro Aspe, Minister of Finance. As a kind of arbiter was Miguel Mancera, Governor of the Bank of

... from the usual uncertainty associated to a change of administration. Lastly, a part was explained by the perception (*possibly wrong*) of the markets, that the incoming Administration was unwilling to pay the costs associated to the defence of the exchange rate band (Aspe 1995, emphasis added).

Aspe therefore proposed that, that same day, president-elect Zedillo called an emergency meeting of the Pacto, to affirm his commitment to the exchange rate band. If the speculation against the peso continued, then a new meeting would take place the following day after the markets had closed, to explore alternative courses of action. Aspe also stressed that, if there was to be an abrupt devaluation, it had to be as a part of a comprehensive economic package, and that an administration that had ten days to run out its course hardly had the credibility to implement such a bold move. Zedillo ratified the Pacto terms that night (Table 3.9), and the speculative attack vanished; international reserves would stay virtually constant during the last days of the Salinas presidency: from US\$12.79 billion on November 20 to US\$12.48 billion at the end of the month. A first signal that the Zedillo government could not have the same determination to avoid an abrupt devaluation at any cost was that Aspe was not ratified as Finance Minister, with the job instead going to Jaime Serra. Aspe not only had the confidence from foreign investors, but it was known that he was resolutely against an *abrupt* devaluation.⁸⁶ While he had strong credentials as a competent official, having been Trade and Industry Minister during the whole of the Salinas administration, and as such head of the NAFTA negotiations, Serra's commitment to sustain the exchange rate policy was unknown.

If Zedillo had considered to give a different course to economic policy, and for that reason he did not ratify Aspe and had refused to openly endorse the *Pacto* terms that had been agreed in September until his hand was forced on 20 November, it was not apparent. When Serra presented the budget and economic projections for 1995 to Congress on 9 December, these followed strictly the lines of the *Pacto* terms agreed the previous September. However, those projections only made matters worse, as they were considered far from realistic: while sustaining the exchange rate band, it was expected that the economy would grow 4 percent, while the current account deficit would amount to \$31.1 billion, that is, slightly higher than that registered during 1994. It was not only that it seemed difficult to reconcile both projections, but also that it was not clear where the \$31 billion were going to come from, with foreign investors' confidence much diminished. A new speculative attack started precisely on 15 December (see Table 5.24). On a meeting with foreign investors in New York two days later, Serra assured them that the government would not devalue. However, as reserves plunged near to the US\$10 billion threshold, on 20 December a bungled 15 percent devaluation took place.⁸⁷ Towards the end of the trading day

... the exchange rate depreciated, until it hit the upper limit of its fluctuation band and at 13.15 P.M. Banco de México intervened in the market with the sale of \$90 million in order to avoid closing operations for the day with the exchange rate pegged to the

Mexico, who was highly-regarded by both administrations, and that under the terms of the recently gained independence of the central bank would finish his tenure until the end of 1997.

⁸⁶ Aspe (1995) points out that during his tenure as Minister of Finance the peso was nominally devalued in more than 50 percent, rejecting that he was for a fixed exchange rate or against devaluing the peso.

⁸⁷ The devaluation action will be explored in detail in Chapter 6.

upper limit of the band... Despite this intervention, the demand was so strong that the exchange rate closed at only 6.6/1000 from the upper limit of the band.⁸⁸

Panic ensued on 21 December. To sustain the peso within the new band, the central bank lost US\$4.54 billion, leaving the reserves at a meagre US\$5.85 billion. With another similar trading day, the reserves would have been completely consumed. The peso was allowed to float freely. Just a few days later, it was known that the government owed \$29.21 billion dollars in Tesobonos, and that virtually the whole lot was due during 1995, while Serra resigned as Finance Minister. The peso flew off the charts, while financial meltdown loomed.

⁸⁸ Fragment of the excerpt from the 20 December 1996 logbook of the foreign exchange desk at the Bank of Mexico, included as Appendix E of Gil Díaz and Carstens (1996).

3.6. CONCLUSIONS

3.6.1. SD AND MEP

While Stabilising Development (1954-72) is usually seen as a sort-of golden period, that perspective is at least partially the result of its contrast with the negative results obtained by Mexican Economic Populism (1972-82). However, many of the seeds for the MEP policies were sown during the SD era, such as the avoidance of a profound tax reform that would substantially increase revenues, the rescuing with public monies of failed (important) private businesses, the rebuff to foreign investments, virtually frozen public prices, and a fixation with a fixed exchange rate. That is not to say that SD brought MEP as a natural consequence. However, SD certainly created a political and economic culture that greatly compounded the negative results those populist economic policies had. If personalities many times are fundamental to explain economic and governmental affairs, that is even more the case when dealing with the recent history of Mexico, where the extraordinary powers wielded by the President should be taken into consideration to explain economic policy. When Messrs Echeverría and López Portillo decided to radically depart the path of relative orthodoxy followed during SD, there was nothing to stop the change of course. The abandonment of monetary and fiscal prudence, combined with the numerous drawbacks of the SD strategy, brought disastrous results.

3.6.2. EXTERNAL INDEBTEDNESS AND ECONOMIC POLICY

As with many other economic policies, it could be argued that the addiction of the Mexican economy to external indebtedness started during the SD period (particularly during the second half of the 1960s). However, yet again, populist economic policies considerably compounded any negative features of the SD strategy, and that was the case also with external debt acquired by the Mexican government. Loans from the international capital markets considerably helped to sustain MEP, particularly during 1973-76 and 1981-82, for example financing huge amounts of capital flight, allowing the government to sustain an increasingly overvalued exchange rate. External debt also allowed that a culture that had permeated in Mexico even before SD, which considered the government as a provider, not only to continue during the MEP period, but also to be carried to astonishing lengths. For example, when huge oil deposits were discovered, that wealth was distributed even before important amounts of the mineral was extracted, in the form of jobs in the public sector, subsidised goods and services, and an overvalued exchange rate. All that munificence was financed with external debt.

3.6.3. ECONOMIC POLICY AND THE 1982 DEBT CRISIS

Most analyses of the 1980s international debt crisis naturally looked at all HICs (mostly the Latin American ones) that had fallen into that quandary. Aiming to elucidate the causes of that crisis, global factors were cited as at least partial explanations to it, mainly the skyrocketing of international interest rates (in nominal and real terms) that started in October 1979, the global economic slump that followed, and with it the plunge in the terms of trade for many LDCs. Those explanations undoubtedly have at least some merit in the cases of many countries. However, at least the case of Mexico can be clearly set apart. Undoubtedly higher interest rates represented a negative shock, as it was the fall in oil prices that started in mid-1981. However, the economic policy that was followed during the MEP epoch (moreover the one implemented during 1981-82) is by far the main factor that explains the enormous

needs of resources by the Mexican economy, and the huge increase in external indebtedness (see Chapter 5 for details).

3.6.4. THE CAUSES OF THE 1994 CRISIS

The search for explanations for the sudden collapse of the Mexican economy at the end of 1994 has followed two different paths that complement each other. External academic analyses have concentrated in the search for economic explanations, such as a loose monetary or fiscal policy. Internal analyses, on the other hand, have ascribed the crisis only to political factors. In reality, both factors are fundamental to explain the crisis. The amount of capital that flew out of Mexico during the year is mainly explained by the uncertainty caused by the Colosio assassination. That blow, arguably by far the most important one, was compounded by the fiscal relaxation that took place during the year (albeit, not monetary), and by grave mistakes by the Zedillo administration during its first few weeks in office (see Chapter 6 for details).

CHAPTER 4

LENDING AND OVER-LENDING TO SOVEREIGN BORROWERS IN THE INTERNATIONAL CAPITAL MARKETS

4.0. INTRODUCTION

For any entity -private or public- to borrow it is necessary to find a counterpart: a lender. When many countries fell into debt crises in the 1980s, it was considered that at least some of them had excessive debts with respect to their payment capacity. But for that to be the case, commercial banks, the main creditors of those countries, had also over-stretched in their generosity.

Important borrowing by many LDCs from international banks through the Eurocurrency markets¹ began at least in the early 1970s², a process encouraged by the 1973-74 and 1979-80 oil shocks (see Table C19), through the so-called recycling process.³ At least two facts, however, made the second recycling round⁴ different from the first. One was that many countries, particularly LDCs, had naturally a bigger external debt stock. Another was the reaction of industrialised countries to the second oil shock, which brought about a substantial increase in nominal *and* real international interest rates (see Table C1) that pushed many countries into recession. Indebted countries not only faced a higher debt service bill, but also lower foreign exchange receipts from exports. As Sachs (1989b, 9) points out:

What is truly remarkable about the bank behaviour is not the lending during 1973-79, but rather the outpouring of new lending during 1980-81, even after the world macroeconomic situation has soured markedly... in a mere two years, 1980 and 1981, total bank exposure nearly doubled over the level of 1979 in the major debtor countries.

The previous borrowing by many LDCs, particularly in Latin America, was dwarfed by the spree that began at the end of 1980 and was to continue until mid-1982. Net borrowing by Latin American countries from commercial banks increased by nearly 70 percent in real terms between mid-1978 and mid-1982 (Figure 4.1.). Why did commercial banks, particularly U.S. institutions, continue to play along? It is one of the purposes of this chapter is to explain that seemingly illogical behaviour, for which as yet no full elucidation has been provided. After the international debt crisis was left behind, many countries managed a renewed access to the international capital markets.⁵ The lenders, though, changed. During the 1990s many sovereign borrowers have obtained abundant resources from international bond markets. It is also the objective of this chapter to study these recent developments, to test for any similarity between the lending in the 1970s and the 1990s, and to determine if the burnt fingers of commercial bankers can teach any lessons to their successors as lenders.

As a whole, the chapter provides not only a comprehensive look at the supply side of the story of the indebtedness process by sovereign countries, but a profound analysis of its real workings, challenging on the way assumptions that for years have been taken for granted, either because their constant repetition has provided them with a seal of veracity or because they match certain postulates of orthodox economic theory. Most notably, it is not surprising that sovereign borrowers are seen as

¹ Eurocurrency markets and Euromarkets are taken as equal terms.

² There is no comprehensive data available before 1972 (see OECD 1995). However, important LDCs, such as Mexico and Brazil, had started to access the Euromarkets in the 1960s.

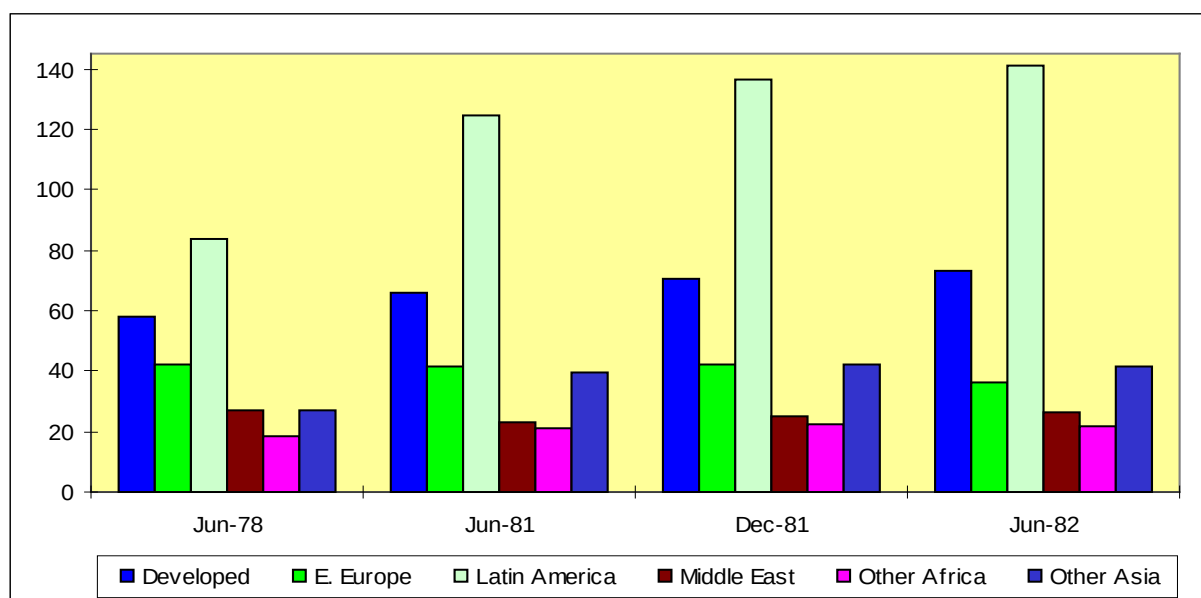
³ Whereby several oil exporters (particularly Arab countries) were unable to absorb the higher oil-revenues, and started depositing their surpluses in short-term accounts in leading U.S. and European banks, that "recycled" those deposits by lending them to oil-importers that wished to cushion the negative shock.

⁴ Oil prices increased markedly again because of the 1979 Iranian Revolution and the September 1980 Iraqi invasion of Iran. High real oil prices seemed to many a phenomenon that had arrived in the 1970s to become a permanent feature.

⁵ Though not for all HICs. Several, particularly in Sub-Saharan Africa, continue under the shadow of what is considered excessive debt -to commercial banks and/or industrialised countries.

fundamentally different from private debtors. In that sense at least, as it will be shown in the chapter and in the thesis as a whole, the creed followed by lenders was correct. However, what is remarkable is that, at least during the 1970s and early 1980s, all the countries that were able to access the markets were treated practically as if they were equal, a notion that broke the relationship that is regarded to normally exist between perceived risk of default by a borrower and the cost that it should pay for a loan. Not even the 1980s debt crisis has been able to shackle off that assumption.

Figure 4.1. Real Credit Commitments of Reporting Banks to the BIS, vis-à-vis countries outside their own area, 1978-82.
(June 1978 billion dollars)



Source: Elaborated with data from Table C14.

The first section of the chapter will explore the evolution of the Eurocurrency market. While accounts are abundant on the subject⁶, it is nevertheless surprising that conflicting versions exist about certain aspects of their origin and early development, with statistics of the Euromarkets also not notable for their abundance or congruity between different sources. Besides of providing an account of the development of the Euromarkets, the section also has the merit of contributing to that history. Most notably, the widespread belief that those international capital markets “exploded” as a result of the 1973-74 oil shock is proved to be wrong.

The second section will explore in great detail the numerous reasons that commercial bankers had to lend to sovereign countries and to consider that the money of their depositors would be much safer than in a loan to a private firm. Any notion that banks behaved in an irrational way vanishes when all the motives explored in section 4.2 are taken into consideration. It is clearly demonstrated, as it has not been done previously in any analysis on the subject, that the generosity of lenders is certainly rational, notwithstanding the fact that it had quite shaky foundations.

⁶ See Sarver (1990, 27-46) for a succinct but sweeping account.

Section 4.3 studies the indebtedness process, through syndicated loans, in the Euromarkets. Particular attention is paid to the process of how a new sovereign borrower successfully enters those markets. In this section the popular notion that the perceived risk of default by a sovereign borrower will be reflected in the interest rate that it will be required to pay for the loans it receives is challenged, providing a realistic alternative instead. How a country continues to delve into the markets once it has entered them is also studied in the section. Lastly, the final part of section 4.3 will study in detail the evolution of the Euromarkets during the 1973-82 decade. Attention is concentrated on the lending by syndicates of commercial banks as that was by far the most popular instrument through which countries borrowed in the Eurocurrency markets.

What was the engine of the Euromarkets during the 1970s and early 1980s, supply or demand? That is the question answered in section 4.4. Abundant arguments are provided to conclude that supply was that locomotive. While that conclusion may not sound surprising to any observer of the markets, it nevertheless is looked at from several angles.

Section 4.5 takes a similar path to that followed in Section 4.3, but looking at borrowing through the international bond markets, as that is the main instrument through which sovereign countries borrow since the late 1980s. The analysis, coupled with that previously done in section 4.3, allows to point out the notable differences between the two markets, and the implications that such variances will have if and when a sovereign defaults on its bonds (something yet to occur in contemporary history, but that looks increasingly as an event waiting to happen).⁷ General conclusions then follow.

⁷ Apparently, the dubious honour of being the first country to do so will correspond to Russia or to Pakistan.

4.1. THE EUROCURRENCY MARKET: ORIGINS AND EARLY DEVELOPMENT

Two standard explanations are provided of the origins of the Eurocurrency market.⁸ The first is founded on the policies that some national authorities took to discourage the international activities of domestic banks in domestic currency by various forms of voluntary or mandatory payment restrictions. The second asserts that foreign holders of dollars (socialist countries headed by the Soviet Union and/or Arab countries) wished to deposit their funds in places far from the grasp of the U.S. government.

Following the first hypothesis, the beginning of the Eurocurrency (by far dominated by the Eurodollar) market is associated with the 1956 run on sterling, when the British pound was dumped for dollars because of the Suez crisis. As a consequence, the Bank of England prohibited the external lending of sterling, with the notion that if foreigners did not have pounds they could not exert pressure on its exchange rate.⁹ London overseas and merchant banks then switched arranging sterling financing for international trade to dollar financing (the Bank of England prohibitions said nothing about dollars). By offering to take in dollar deposits at competitive interest rates -i.e. higher than in New York- they could acquire dollars to lend (the Bank of London and South America was one of the institutions that spearheaded that policy after 1957). The novelty was that a market was developed for *both deposits and loans* denominated in a foreign currency. Thus, the innovation in the Euromarket was that it took the exchange risk of one currency (such as the dollar) and combined it with the regulatory climate and political risk of another financial centre. Similarly, also in the 1950s, Italian banks bid aggressively for dollar deposits in order to make dollar-denominated loans to avoid the fixed lending rate structure that existed for lira loans.

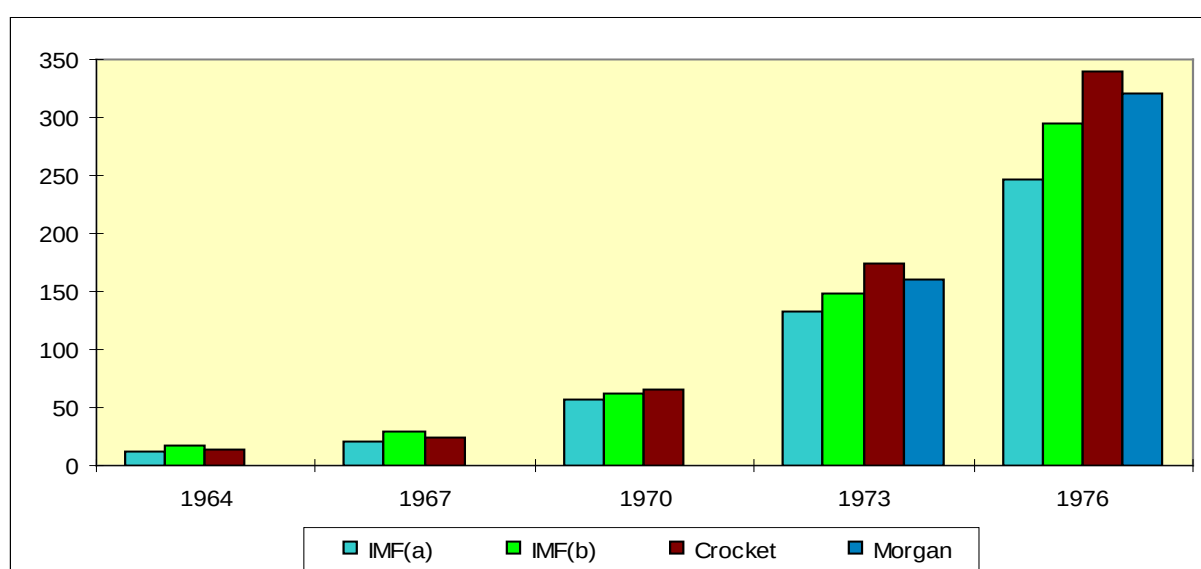
The U.S. government later implemented credit restrictions with a similar naiveté, to arrest pressure on the dollar/gold exchange rate, then fixed at \$35 per ounce. An Interest Equalisation Tax (IET) was applied on American purchases of foreign securities on 18 July 1963. The IET raised the cost to foreign borrowers of issuing bonds in the Yankee market in New York, creating the incentive to issue dollar-denominated Eurobonds. In February 1965, the IET was extended to loans with 1-3 year maturity when U.S. banks granted them to designated foreign borrowers. The same month the (voluntary) Foreign Credit Restraint Program (FCRP) was instituted, setting limits on lending by U.S. banks to U.S. multinationals involved in foreign direct investment. In January 1968, these controls were made legally mandatory. Companies were given an incentive to borrow dollars from sources not subject to these quotas, and banks a similar one to set up shop abroad -or lose their clients to foreign banks. The number of U.S. banks with foreign branches rose from just seven before 1960 to 79 by 1970. Moves by other countries gave further impetus to the Euromarkets, such as the withholding tax that the German authorities introduced in 1964, with the objective, that succeeded, of pushing non-German investors to acquire foreign rather than domestic Deutschmark-denominated bonds. While the IET-FCRP combined effects reduced the supply of funds available in New York, the Federal Reserve's Regulation Q placed an interest ceiling on the amount U.S. banks could pay on bank deposits. When market

⁸ The history that follows is constructed from Kapur (1976, 3-8); McKinnon (1977, 5-10); IMF (1978, 6-18); Euromoney (1978c, 61-62); Mayer (1979, 55-56); Eaton, Gersovitz, and Stiglitz (1986, 505); Levich, et. al. (1988, 220-222); Devlin (1989, 26-33, 39); Sarver (1990, 27-46); Benzie (1992, 10-15), Volcker and Gyohten (1992, 101-140), and Gurria (1993, 13).

⁹ This was not the first time in the history of London as an international financial centre that a policy of the kind was followed with that objective. During the 1920s, the British authorities sought to restrict the issuance of foreign sterling bonds in London, with the objective of securing the return of sterling to the gold standard.

interest rates rose above the Regulation Q ceilings (as it happened in 1966 and 1968-69) capital was enticed to move to, for example, Eurodollar deposits. Banks were pushed to open Euro-branches, that could pay market interest rates and re-lend the funds to their headquarters. Many institutions were hindered to follow that option because of the minimum capital investment required to open a branch in London. A change in the Federal Reserve regulations enabled them to establish so-called one-man shell branches in the Caribbean -Panama, Nassau and Grand Cayman. These branches carried out the accounting of international transactions that were actually undertaken in the United States. Each bank branch and consortium bank established in London enlarged the Eurocurrency pool by re-depositing their funds with each other, thereby creating new deposits. Even netting out those interbank deposits the growth was explosive (Figure 4.2).

Figure 4.2. Estimations on the Net Size of the Eurocurrency Market, 1964-76^a
(billion dollars)



a. Net of interbank deposits. IMF (a) is a "narrow" definition; IMF (b) a "broad" definition (for details of both definitions and statistics on the gross size of the market see Table C4).

Source: Elaborated with data from Table C4.

The second (probably complementary) explanation of the origins of the Eurocurrency market states that, during the Cold War early years, the Soviet Union feared an expropriation of its dollar deposits in New York, and switched them to Soviet-controlled banks in Western Europe, such as the Moscow Narodny in London and the Banque Commerciale pour l'Europe du Nord in Paris.¹⁰

At its beginning, Eurocurrency loans were basically short-term, reflecting its short-term deposit base. But soon banks bought short-term deposits in the interbank market and, through a continuous roll-over, were able to provide medium- and long-term lending. Moreover, banks passed the interest rate risk on to the borrower: fixed-rate loans were abandoned, particularly after the Smithsonian agreement collapsed in early 1973. The interest rate paid by a borrower became the sum of two parts: a reference

¹⁰ For example, Levich, et al. (1988, 220) and Sarver (1990, 30) consider that the Soviet deposits are crucial to explain the origin of the Eurocurrency markets. However, apparently the two banks were simply holding dollars in trust and did not get involved in dollar-lending until the later emergence of the practice by London overseas and merchant banks.

rate (usually LIBOR or the U.S. Prime rate when U.S. banks were heavily involved¹¹) and a spread, to provide for risk coverage and profit. The reference rate component was adjusted at fixed intervals to its current market value, and consequently loans in fact paid floating rates (thus inflation was lost as a means to alleviate real debt service for debtors). The spread was unchanged, unless otherwise stated, for the duration of the loan.¹² Thus lenders could ensure an approximate correlation between their cost of funds (LIBOR) and the price of the loan. The loan syndicate was another fundamental innovation of the Euromarkets. Creditors discovered that individual institutional risk could be minimised by joining together in a group to extend a loan. Large amounts would be lent in one credit, yet the exposure of each bank would be tailored to its own objectives. The syndicated loan was especially important in allowing small banks to enter the Euromarkets (Devlin 1989, 32).

There is the widespread notion that the Euromarkets exploded as a result of the oil crisis; that both oil exporters and importers, appealed to them to deposit their surpluses and to borrow to finance their deficits, respectively. However, a plain look at the data shows that there was no such explosion in any year during the 1974-76 period. The highest rate of growth of the market in the 1970s is observed in 1973, an expansion that cannot be ascribed to the oil shock¹³, and that could be partially attributed to the crumbling of the Smithsonian agreement. The Euromarkets kept very high rates of growth after the oil shock, but not higher than those registered in the late 1960s and early 1970s (Table 4.1). Looking at the other side of the coin, there is not either an explosive increase in borrowing after 1974, but the continuation of a well-established growth trend (Figure 4.3). That is not to say that the recycling of oil surpluses did not contribute to the growth of the Euromarkets (that during 1974 were the largest single depository of OPEC funds).

Table 4.1. Growth of the Eurocurrency Market, 1967-76
(percentage growth over the previous year)

Year	IMF Narrowly-Defined ^a		IMF Broadly-Defined ^a		Crocket	
	Gross	Net ^b	Gross	Net ^b	Gross	Net ^b
1967	26.9	31.3	25.7	30.4	28.0	19.0
1968	42.4	42.9	31.8	26.7	43.8	36.0
1969	72.3	46.7	69.0	31.6	41.3	47.1
1970	29.6	29.5	29.6	24.0	32.3	30.0
1971	29.5	24.6	29.9	25.8	74.4	30.8
1972	34.6	29.6	34.5	28.2	40.0	29.4
1973	44.8	43.5	49.1	48.0	39.0	59.1
1974	17.0	34.1	21.8	40.5	57.2	31.4
1975	14.2	15.8	15.1	15.4	20.0	15.2
1976	17.8	20.5	20.7	22.5	22.0	28.3

a. For the meaning of narrowly and broadly defined see Table C4.

b. Gross size estimates adjusted to exclude interbank deposits.

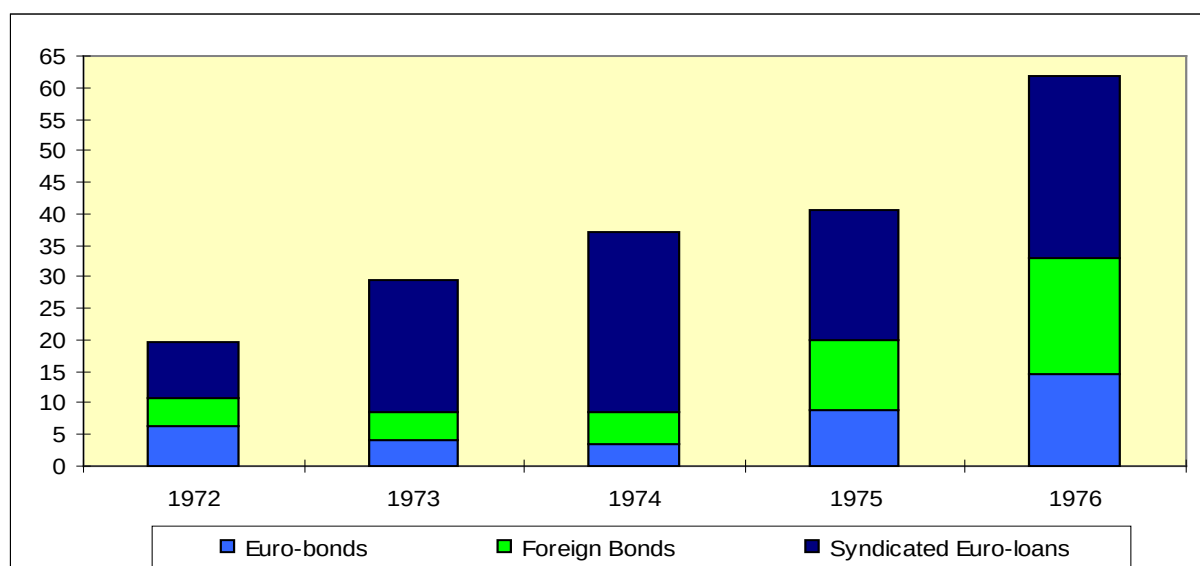
Source: Extracted from Table C5.

¹¹ LIBOR is the acronym for London Interbank-Offer Rate, the rate charged in the interbank market. After 1980 it became common for countries to borrow offering LIBOR and Prime options (the latter to attract U.S. regional banks into the syndicate).

¹² Therefore, the negotiation between borrower and the syndicate leaders centred on the spread. Its significance in the borrowing process will be studied in detail later in the chapter.

¹³ Oil prices virtually quadrupled between mid-October of 1973 and January 1974 (see Table C19). Therefore, the deposits due to the oil crisis started in 1974.

Figure 4.3. Funds Raised in the International Markets, 1972-76^a
(by borrowing instrument, billion dollars)



a. Data that includes syndicated credits is only available since 1972

Source: Elaborated with data from Table C6.

What can be ascertained is that commercial banks increased their liquidity, while several important LDCs were already important recipients of Euromarket loans. With industrialised countries suffering from recession at the end of 1974 and during 1975, LDCs became a prime target for lenders that aimed to continue expanding their operations and profits. Many reasons pushed bankers to think that lending to those countries was safer than what would have been concluded looking at relatively recent historical records. The following section will explore those reasons.

4.2. FACTORS BEHIND BANK LENDING TO LDCs

Several reasons explain the apparently baffling lending by commercial banks to LDCs from the second half of the 1960s until the virtual Mexican default in 1982. It has been frequently asserted that lenders and borrowers (*and* regulators) should have learned the lessons from the past.¹⁴ However, several factors would impulse bankers to think they would avoid their predecessors' fate.

4.2.1. THE *NATURAL* INTERMEDIARIES AFTER THE OIL SHOCK

The 1973-74 oil shock brought a huge imbalance between big oil exporters and importers. In the months that followed, several countries, headed by the U.S., sought alternatives to "recycle" the oil surpluses; estimates point out that 41 percent of the \$56 billion that OPEC countries had as a surplus in 1974 entered the international private banking system (Devlin 1989, 43). However, industrialised governments were not enthusiastic in intervening directly -because of the risks assumed and also from an ideological perspective. The Washington Energy Conference, in early 1974, didn't succeed in finding a solution that, as it turned out, was unnecessary: the commercial banks emerged as the natural (and market-based) intermediaries of the recycling process. This was more than welcome by the industrialised governments (Volcker and Gyohten, 138-140, 192-193; Gwin 1984, 90).

Syndicated loans quickly became a popular option for countries, not only to soften the oil shock, but also to continue their development strategies as if nothing had happened. The IMF and the World Bank were displaced, even for development financing. The stereotyped image that the Fund developed during the 1960s (especially among LDCs) was that of a creditor which inflexibly insisted on rapid and sometimes brutal adjustment. It is not surprising that, with private lenders asking no awkward questions of where the money was going, the Fund's clientele practically shrank to poor LDCs with no substantial access to commercial loans (Williamson 1983, 608-609; Bacha and Díaz-Alejandro 1982, 32). Bankers were happy to lend to LDCs, with the IMF only entering the scene if and when the country faced serious difficulties (Pringle 1974, 741-742; De Vries 1983, 179-80; De Vries and Porzekanski 1983, 65; Friedman 1983, 121). The possibility that the recycling process would eventually face difficulties was discarded, with the argument that loans were granted only to creditworthy countries. In the words of a leading banker, and arguably the most enthusiastic about the then nascent process, the chairman of Citicorp, in mid-1974:

I don't think you can make a generalisation about credit. There are developing countries where credit is excellent despite the oil payments. There are other countries whose credit with or without the oil payments is not that good (Pringle 1974, 741-742).

4.2.2. A FAVOURABLE INTERNATIONAL ENVIRONMENT

The key to the success of the recycling process after the first oil shock was that nominal interest rates on dollar loans were consistently below the rate of growth of dollar export earnings of the borrowers, as the prices of many commodities, not only oil, increased (Kapur 1976, 6). Thus, a country could borrow all the money needed for debt servicing without experiencing a rise in its debt-exports

¹⁴ For a detailed study of the first negative experiences of bondholders with Latin America see Dawson (1990).

ratio. To those looking at that popular indicator¹⁵, until the late 1970s there was actually no cause to worry (Sachs 1988a, 237-241). It was only in October 1979 that the U.S. Federal Reserve authorities resolved to tighten monetary policy considerably to bring inflation down¹⁶, pushing real international interest rates to unprecedented high levels (see Tables C1-C3). Not a few borrowers, and even lenders, would later put the responsibility for the 1980s debt crisis at the Federal Reserve's door. For example, the chairman of Citicorp, Walter Wriston, considered that:

"We're beat upon the fact that we have imprudent moments. But I don't know anyone that knew that (U.S. Federal Reserve Chairman Paul) Volcker was going to lock the wheels of the world" (Adam and Field 1983, 295).

4.2.3. LACK OF EXPERIENCE AND HEFTY PROFITS

For several LDCs, borrowing in the international capital markets was nothing new; the 1960s had marked their return to them after an interregnum of several decades. However, for commercial banks (and bankers) it was the first relevant experience on the matter, as until the Great Depression this activity was dominated by the international bond markets, from where, after defaulting, LDCs had vanished in the 1930s. There was also a generational gap: those involved in the management of banks during the 1930s had mostly retired, their places taken by a younger -and less conservative- generation (Guttentag and Herring 1985, 133; Devlin 1989, 26). During the late 1950s and the 1960s the rescheduling of sovereign debt had been concentrated in few countries, and the scope of those negotiations covered essentially two types of debt -publicly guaranteed supplier credits and bilateral governmental loans, with virtually no involvement of private lenders.¹⁷ Even when problems did arise in the 1970s, the mishaps meant relatively small amounts (Table 4.2). Therefore, it is not surprising the comment of Walter Wriston on Citibank's \$40 million exposure to Zaire:

... if we lost our total unguaranteed portion in Zaire, that would be a third of what we wrote off on the Penn Central. That's not a very exciting number, but people seem to get excited about it (Clarke 1978, 84).¹⁸

In the same line was the comment of a high level official from Morgan Guaranty Trust in March 1982, just a few months before the virtual Mexican default:

Historically, the losses in the area of sovereign lending have been remarkably small... banks are fairly relaxed about country risk (De Vries 1983, 178 and 181).

In an extensive survey conducted at the end of 1981 and the beginning of 1982, virtually half (49 percent) of the 111 commercial, investment and consortium banks that answered the questionnaire (56 percent among the biggest banks) considered that there was going to be only a "modest" increase in the risks of international lending in the following five years (to 1986). 10 percent (five percent of the most important creditors) answered they expected no change in those risks, while 41 percent (39 percent

¹⁵ The value of the debt/exports ratio is questioned in Chapters 1 and 6.

¹⁶ See Volcker and Gyohten (1992, 166-170) for details.

¹⁷ In 1968, Peru's U.S. creditor banks participated in a financial blockade, but it had been (politically) motivated by the Nixon administration (Devlin 1989, 141). The first real involvement of creditor banks with a sovereign in a debt crisis happened in 1976 with Zaire, and even then the portion of debt owed to private creditors was less than half of the total negotiated (Table 4.2).

among the biggest institutions) considered that there was going to be a “substantial” increase. The main threats to individual banks were listed in the following order: default by a major borrowing country; large numbers and amounts of reschedulings, and foreign exchange losses. Large numbers and amounts of reschedulings were seen as the main threat to the international banking system (Bell and Heimann 1982a, 4-10).

Table 4.2. Debt Rescheduling Agreements, 1956-82^a
(million dollars)

Year	Countries	Amount	Year	Countries	Amount
1956	Argentina ^b	500	1979	Jamaica	149
1959	Turkey	400		Turkey	2930
1961	Brazil	300		Guyana	29
1964	Brazil	200	1980	Bolivia ^f	200
1965	Chile	96		Liberia ^e	27
	Turkey	220		Nicaragua ^f	582
1966	Ghana	170		Peru ^f	340
	Indonesia	247		Sierra Leone ^e	39
1967	Indonesia	85		Togo ^f	69
1968	Ghana	100		Turkey ^e	2600
	Indonesia	85		Zaire ^f	402
	India	300	1981	Bolivia ^f	412
	Peru	58		C. African Rep. ^e	55
1969	Peru	70		Jamaica ^f	238
1970	Ghana	25		Madagascar ^g	289
	Indonesia	2100		Nicaragua ^f	192
1972 ^c	Chile	160		Pakistan ^e	263
	India	153		Poland ^e	2000
	Pakistan	234		Senegal ^e	77
	Turkey	114		Sudan ^f	498
1973	Pakistan	103		Togo ^e	92
1974	Chile	367		Uganda ^e	56
	Ghana	290		Zaire ^e	574
	India	194	1982	Liberia ^e	25
	Pakistan	650		Guyana ^f	14
1975	Chile	230		Madagascar ^e	103
	India	167		Nicaragua ^f	100
1976	India	160		Poland ^h	4182
	Zaire ^d	350		Romania ^{gh}	1832
1978	Jamaica	83		Sudan ^g	229
	Peru	821			

a. Reschedulings with official and/or commercial creditors concluded before the August 1982 Mexican moratorium. The kind of creditor is differentiated since 1980 (before 1976 most reschedulings were done with official creditors).

b. A general pattern of reschedulings began in 1956 when certain European countries met in Paris (hence the name “Paris Club”) to renegotiate large unpaid balances on bilateral payments agreements with Argentina.

c. A small multilateral rescheduling by Cambodia also took place that year.

d. First negotiations with major commercial bank involvement

e. Agreement only with official creditors.

f. Agreement only with commercial creditors.

g. Agreement with both official and commercial creditors

h. Total amount of two agreements, one concluded after August 1982.

Source: Constructed with data from Bee (1977, 33-36); Stillson (1977), Mendelsohn (1983, 5), and World Bank (1987b, xxviii-xli)

Loan loss statistics for the largest U.S. banks seemed to support this optimism, as they were far lower for international than for domestic activities. Moreover, the loss record improved during the late 1970s: for the ten largest U.S. banks, international net loan losses as a percent of average international

¹⁸ Wriston was referring to Penn Central Railroad, which went bankrupt in 1970.

loans dropped from a record 0.39 per cent in 1976 to 0.10 per cent in 1980. International net loan losses relative to total losses dropped from a peak of 29.3 per cent in 1977 to 15.3 per cent in 1980 (Bell and Heimann 1982b, 7).

Moreover, syndicate leaders (usually the biggest banks) obtained profits not shared by many of their less-important peers. Not only were they generally able to fund themselves at 125 to 250 basis points below the London Interbank Bid Rate (LIBB)¹⁹, but they also received the lion's share of the front-end fees (commitment fee, management fee, signing fee, participation fee, etc.), which were sometimes as high as 1.5 percent of the amount lent, that accompanied a loan (IMF 1978, 15-16; Guttentag and Herring 1985, 132). With international operations an increasing source of earnings (see Table C15) and profits, a comment like the one made by Citicorp's Wriston is not surprising:

... there are 220 million people in the United States and there are four and a half billion people in the rest of the world. So you don't have to have an MBA in marketing to know that, if you are half-way good, overseas, overtime, you'll have a bigger proportion (of profits) than you will in the home market. After all, England invented the system (Clarke 1978, 84).

4.2.4. INSTITUTIONAL AND IMPLICIT LOLRS

Several domestic agencies and international organisations developed *after* the Great Depression and World War II were considered by many bankers as institutional lenders-of-last-resort (LOLRs). Even industrialised governments were considered potential LOLRs, by some bankers, under the consideration that both borrowing countries and banks were too important for those governments to let them down. Guttentag and Herring (1985, 136) point out that the existence of the Bretton Woods institutions, particularly the IMF, seemed to indicate that the difficulties experienced during the Great Depression belonged to the past. The perspective of De Vries (1983, 179-80) confirms that view:

(The IMF) has come to the rescue in Turkey, Zaire, Peru, Jamaica, and other countries. *The IMF presence and role underpin confidence, just as a steady local central bank strengthens the domestic monetary system.* The Fund can help individual countries in correcting policies *and making them ready again for the private markets* (emphasis added).

That is, the view was that private financial institutions would lend, and stop only if the country hit trouble. In those cases, the Fund would jump into the fray, to help it regain its creditworthiness. In fact, the banks saw themselves as a substitute to the IMF, providing loans for all kinds of purposes. Friedman (1983), said about the Mexican borrowing record and the IMF's role:

For many years... Mexico had no difficulties in accessing private loans in many billions... *It could borrow for all purposes: budgetary support, balance of payments deficit, government entities...* (p. 121, emphasis added).

If the lender sees the country as too risky, or becoming too risky, he is pleased to find *others engaged in trying to change policies in accordance with his standards.* *The IMF is, at times, the most visible outside influence with standards deemed acceptable to lending banks...* The banker eagerly applauds a country in difficulty that goes to the Fund... (p. 119 emphasis added).

¹⁹ And the LIBB was typically 125 to 250 basis points below the LIBOR.

Another source of tranquillity for private bankers was the Bank of International Settlements, the clearing-house for the most important central banks. The BIS was seen as a complement to the Fund: it would provide liquidity quickly and informally to a country in trouble, while the Fund provided hard currency to finance a medium-term (one to three years) adjustment (Lomax 1986, 93).

Lenders had reassurances that the pattern they had conceived was working, as several countries went through the borrowing-bust-adjustment-new borrowing cycle. Peru was one example.²⁰ Sampson (1981, 15) describes the dilemma faced by the head of the Peruvian delegation to the 1980 IMF-World Bank Fall meetings, four years after rescheduling its debt:

The (finance) ministers from credit-worthy countries are desperately in demand: 'The trouble with this business', as one investment banker explained, 'is that there are ten hares chasing each fox. When you get to the minister, your rivals have got there before you.' The new Prime Minister of Peru, Dr. Ulloa, is in special demand... 'I can hardly face going back to the hotel', he is heard to complain, 'there are six different banks waiting for me'.

But even without taking into account institutions like the IMF or the BIS, bankers had several reasons to believe that, in case of trouble, their respective governments would come to the rescue.

4.2.5. THE U.S. GOVERNMENT AS AN IMPLICIT LOLR²¹

U.S. commercial banks had several reasons to consider that their government would provide a safety net in case of need:

- Geopolitical Considerations

Latin American countries (particularly Mexico) were important to the U.S. in several political and economic issues, such as trade and immigration. Therefore, bankers expected its support if a country faced trouble (Wellons 1986, 111-112). Naturally, the U.S. wanted prosperity in the region, and not many eyebrows were raised, or questions asked, when loans helped to fuel economic growth (Volcker and Gyohten 1992, 195). There is no indication, however, that certain lending policies were pressed on the banks. Indeed, autonomy was a source of pride among bankers. As Volcker remembers:

Arthur Burns (Federal Reserve Chairman) once recalled that he summoned a group of leading bankers to Washington in 1976 to warn them about the risk of repeating in foreign lands their recent excesses in real estate lending. What he got for his trouble was a response that they knew more about banking than he did (Ibid).²²

Most banks considered that government pressures had not affected their lending decisions to sovereigns. Of 111 banks that were asked this question late in 1981, 76 percent answered no (74

²⁰ Devlin (1989, 139-180) presents a detailed analysis of the credit cycle of Peru and Bolivia during the 1970s.

²¹ The role of the U.S. is explored in detail because of the part played by American banks in lending to sovereign borrowers, particularly in Latin America.

²² See also Wellons (1987, 4).

percent among the big banks). 24 percent (26 percent among the big banks) considered they had been subject of pressures (political or other) to lend (Bell and Heimann 1982a, 44).²³

- The 10% Lending Limit Ruling²⁴

U.S. banks had further proof that the government had no intention of hampering their lending with the interpretation of the law on lending limits, that restricted bank lending to individual borrowers to 10 percent of the bank's capital. Title 12, Section 84, of the United States Code established that:

The total obligations to any national banking association of any person, copartnership, association, or corporation shall at no time exceed 10 per centum of the amount of the capital stock... and... surplus (of the bank) (Quote in Wellons 1987, 101).

The U.S. Comptroller of the currency faced a dilemma interpreting the scope of the word *person*: when were SOEs parts of the central government for purposes of Section 84? If both were considered the same *person*, some of the biggest banks were at or near their limit in countries with large public sectors.²⁵ The Comptroller consulted widely before adopting a decision. The Bank of Mexico argued strongly for a flexible application of the rule. Even other areas of the U.S. government raised questions. The Commerce Department expressed concern, saying that "the possible restrictive effect this rule may have on certain U.S. bank lending both current and future, could become a matter of concern to U.S. foreign trade, particularly since third-country banks²⁶ will tend to favor exports from their own country". The State Department argued for "the overriding interest of sustaining Latin American order and growth". The interpretative ruling, issued in April 1979, stated that a SOE need not to be treated as part of the government, if it had the means to service its debt and if the purpose of the loan involved the borrower's business. The lender, rather than the Comptroller, would decide when those conditions were met.

- Approval of Bank Lending for Balance of Payments' Purposes

The Reagan administration initially concurred with the banks in their view that countries with access to the capital markets should not use IMF resources, even for current account deficit financing. The U.S. criticism of the IMF programme approved for India in November 1981 is the best example of that position (Gwin 1981, 530). The Fund did not agree with that view, considering that countries in trouble would delay adjustment, while appealing to private loans (Dale 1981, 13).

- The FDIC

As Eaton, Gersovitz and Stiglitz (1986, 485) and Rogoff (1990, 4) point out, the existence of the Federal Deposit Insurance Corporation provided bankers with an incentive to lend in a risky fashion, hoping for big profits, but able to transfer large losses to their insurers.

²³ The survey, however, did not specify the nationality of the banks that answered positively to the question.

²⁴ This section is constructed with information from James (1977), Shapiro (1978), Wellons (1987, 101-105) and Volcker and Gyothen (1992, 195).

²⁵ In 1978 a U.S. government survey of 119 big banks showed that five countries (Brazil, Mexico, South Korea, Spain, and Venezuela) already owed sums exceeded the 10 percent limit (Shapiro 1978, 70-71).

²⁶ Banks from other countries faced more flexibility on that matter: Belgium (20%); Canada (no limit); France (75%); Germany (15%); Hong Kong (25%); Italy (20%); Japan (20%); Luxembourg (10%); The Netherlands (15%); Singapore (60%); Switzerland (20%), and United Kingdom (no limit). For details see Dale (1982).

4.2.6. PACK HUNTING SECURITY

The loan syndicate permitted not only to pool resources, but also provided a sense of security among its participants, as clauses included in the loan contracts gave equal standing to all creditors, regardless of their exposure. The *pari passu* clause contains an obligation on the borrower to maintain parity between its unsecured obligations, while the negative pledge clause controls the borrower's ability to create or maintain secured indebtedness (Harris 1984, 156-157). The cross-default clauses essentially stated that non-payment to one creditor was equivalent to non-payment to all, and government would have to intervene to avoid a crisis (Guttentag and Herring 1986, 13-14).²⁷ Unlike the 1930s, selective default became legally impossible (Devlin 1989, 32). Thus banks had the incentive to underinvest in information.

4.2.7. SOVEREIGN RISK NOTABILITIES

Bankers conceived that lending to a sovereign was fundamentally different from extending a loan to a private firm, as sovereigns would always be around to (eventually) honour their debts. This attitude is summarised in the famous expression by Wriston (1982, A-13): "Countries can't go bankrupt". Against any history lessons of international finance, bankers considered that sovereign loans would always remain sound, because the borrower would be self-disciplined to keep the money flowing in. Friedman considered in March 1982 that:

By its decision to lend or not to lend, it (the bank) exercises influence on a country's domestic and international behaviour and policies. Borrowing countries realise this and act accordingly. A major consideration is to impress their banks favourably... even sending emissaries to the banks to explain and defend their policies... (1983, 119).

Even after the 1980s debt crisis, a similar view prevails. The IMF expresses a similar faith in the power of market forces to enforce discipline on sovereigns:

Market discipline works in two stages: as a borrower begins to incur debts that can only be serviced with difficulty, the lender's response is first to require a higher interest rate to compensate for the increased risk of default... The higher interest rate, however, itself increases the debt burden on the borrower, so that beyond a certain point no increased spread can compensate the lenders for the increased default risk; beyond this point, the borrower is simply excluded from the market and prevented from borrowing any more.²⁸

A higher interest rate (or spread) was not seen as the only instrument for lenders to show their displeasure. There was also what Guttentag and Herring (1985, 135) label the *short-leash fallacy*: to shorten the maturity of loans, perspective well summarised in the 1981 annual report of Citicorp:

²⁷ Banks were so keen on keeping those clauses in place, and anxious to avoid a negative precedent on that regard that even industrialised countries had to accept them. When France negotiated a \$4 billion loan in 1982 it tried to delete those clauses arguing that its prestige was enough guarantee for the 64 banks that were going to form the syndicate; it had to relent when the banks started to withdraw *en masse* (MacLeod, 189).

²⁸ This view is presented in the 1992 edition of the IMF publication, *International capital markets: developments, prospects, and policy issues*, p. 20.

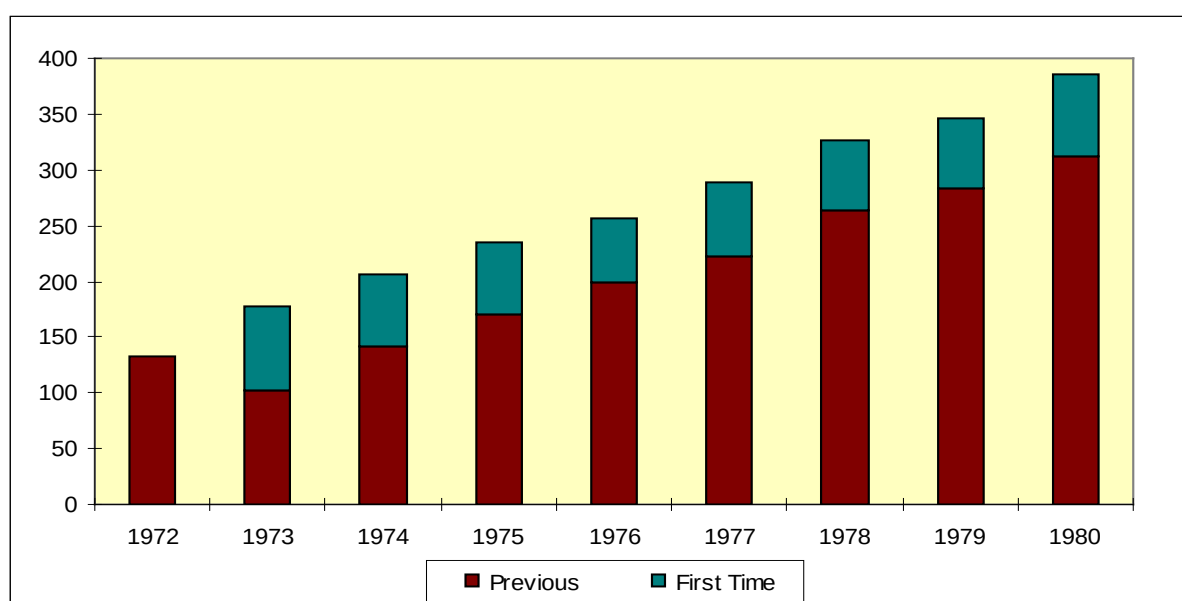
...country risk from foreign currency lending is reduced as the length of the obligation decreases, since shorter maturities permit adjustments in exposure as balance of payments or political conditions change (Quote in Ibid).

As the IMF points out (1992d, 20), effective market discipline requires four general conditions: a) Free and open financial markets, b) Access to relevant information by lenders on the borrower's behaviour, c) No anticipation of a bailout, and d) that borrowers respond as rational agents to the market signals. Considering that those theoretical conditions are many times divorced from reality (sometimes *none* of the four conditions is fulfilled) the difficulties for the pretended market discipline to take command is explicable.

4.2.8. INADEQUATE INFORMATION ON SEVERAL FRONTS

As Eaton, Gersovitz and Stiglitz (1986, 508) point out, if a bank lends, or is willing to lend, it signals that the country is creditworthy. That signal was given by the syndicate organiser(s), and the herd followed²⁹; many banks went into a syndicate without relevant information on the borrower, assuming that syndicate leaders had done that homework. The low cost of jumping into a syndicate may well explain the explosion of new banks entering the Euromarkets as lenders. In the 1973-80 period, an average of 66 new banks entered every year (see Table C12 and Figure 4.4). However, another problem regarding inadequate information was that, even if banks acted collectively, as a whole they ignored the aggregate results of their individual lending -that is, the total amounts borrowed by a sovereign. The BIS' statistics, the main data source of banks' exposure, had a six- month lag; the World Bank's an 8-12 month lag (Cline 1983, 97; Bouchet 1987, 27-31).

Figure 4.4. Previous and First-Time Participants in the Publicised Eurocurrency Credit Market, 1972-80^a



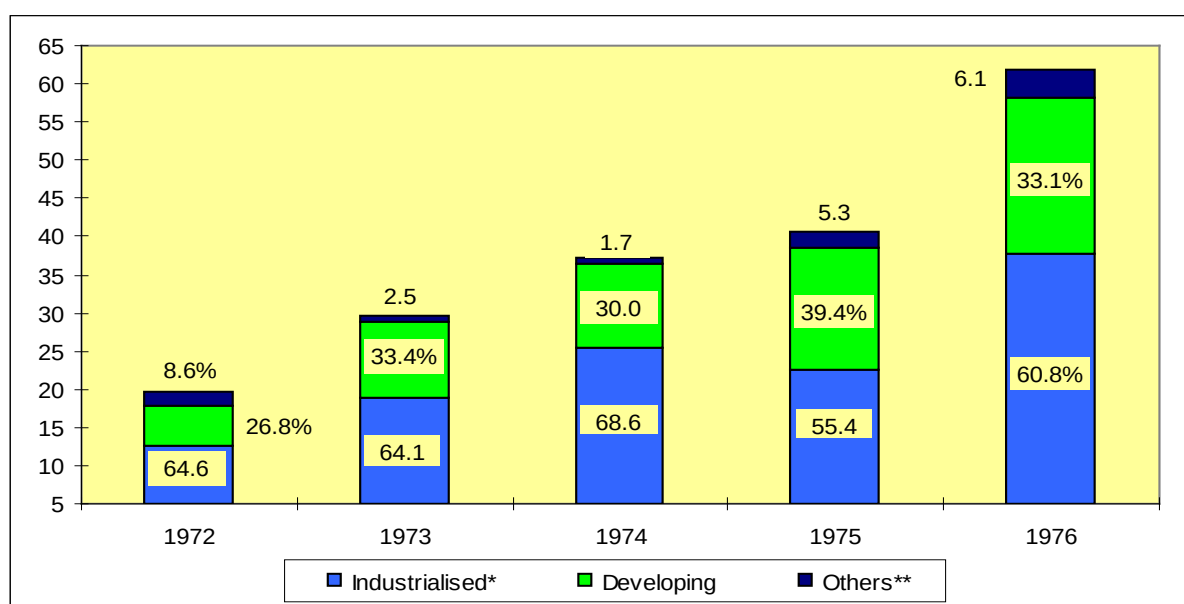
a. Refers to the first-time entry since 1972; data not available for previous years.
Source: Constructed with data from tables C11 and C12.

²⁹ Following the theoretical framework outlined in Chapter 1.

4.3. BANK LENDING TO LDCs THROUGH THE EUROMARKETS

The reasons just detailed (not necessarily the complete list) explain the enthusiasm of bankers in their lending to sovereigns. The access of the most important LDCs to Euromarkets began in the second half of the 1960s (In Latin America only Brazil, Mexico and, to a lesser extent, Peru). Around 1970, loans from banks to governments -as opposed to multinational corporations- began to grow significantly, and LDCs became important clients. As it has been shown, there was not an “explosion” of lending to LDCs that can be ascribed to the 1973-74 oil crisis. Borrowing merely continued to expand as it had been doing before 1974. The share of LDCs in the total borrowing increases somewhat in 1975, after falling during the previous year, but again falls in 1976, to the level observed in 1973 (Figure 4.5).

Figure 4.5. Funds Raised on the International Markets, 1972-76
(by type of borrower, billion dollars and percentages)



* OECD countries in 1995, except Turkey and Mexico, plus European organisations like the ECSC and the EIB.

** International development institutions such as the World Bank and regional development banks.

Source: Elaborated with data from Table C6.

During the second half of the 1970s there is a marked increase in the number of countries that entered the Euromarkets to borrow, even several oil exporters. A fact is that borrowing by LDCs during the following years was to a large degree a Latin American phenomenon (see Figure 4.1).

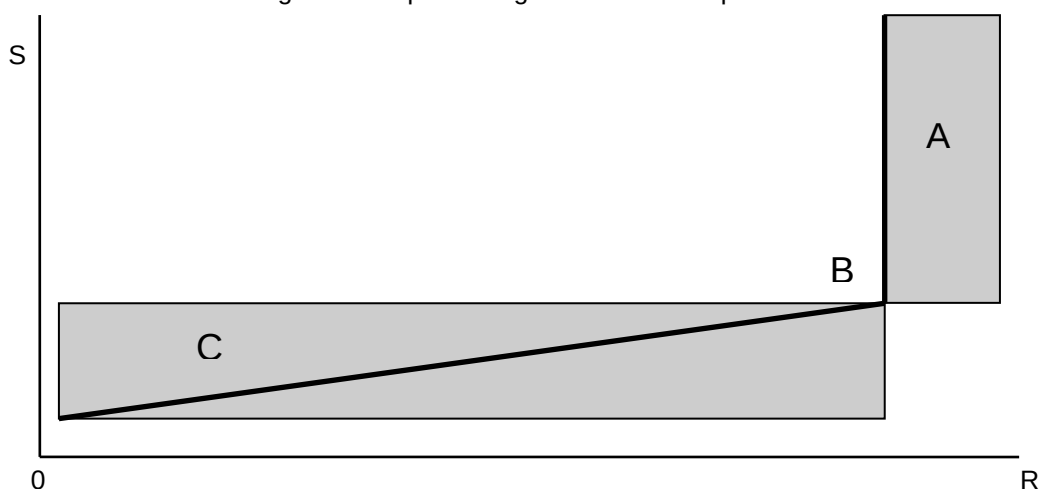
4.3.1. INITIAL ACCESS AND IMMERSION IN THE EUROMARKETS

One legacy of the 1930s bond defaults by LDCs was that it sharply restricted their access to the international capital markets until the 1960s. By 1945 a large portion of the external debt of Latin American countries had been repurchased in the open market, often at prices well below par. Besides, agreements between borrowers and bondholder groupings were reached in the following years. Generally interest rates were considerably reduced (leaving a new rate of 3 percent in most cases) and

maturities were extended by 20 to 30 years.³⁰ In the late 1940s and the 1950s, Latin America started to receive again net flows of external savings, but predominantly composed by official loans (bilateral or multilateral) or FDI; private credits came mainly from suppliers. Therefore, many LDCs had virtually clean slates of medium-term loans from private lenders (suppliers' credits were regularly short-term) by the mid-1960s (other than countries with problems with bilateral credits, see Table 4.2), and were ready to enter the international capital markets.

The difficult step for some sovereigns³¹ to access the Euromarkets for the first time was to gain the attention and confidence of lenders (at least an important one, which would organise a syndicate). Bank risk assessment of any sovereign had a first step: to determine if that country was creditworthy enough to get a loan in the first place. That is, the risk perceived by the creditor was not expressed as much by the spread³², but by the decision to provide the loan or not. Then, the graphic relation between risk assessment and spreads would be something similar to the depiction in Figure 4.6.

Figure 4.6. Spreads Against Risk Perception



When a country is perceived as too risky by, it is in "A", where it is unable to borrow, no matter what spread it is willing to offer. A country is not so risky, becomes creditworthy and enters the markets, when its perceived risk descends to an arbitrary point such as "B". As has been mentioned, in the realm of the Euromarkets, it is not only important for a bank to believe this, but for many to do so, and particularly a bank with the prestige to attract others. Thus, in the whole process of loan syndication (Table 4.3), the selection of the bank leader by the borrower is crucial. Not surprisingly, the biggest banks were top choices for that role. In the words of a seasoned negotiator from Mexico -one of the main borrowers in the Euromarkets:

(The borrowing strategy involves) selecting a single institution that the borrower trusts, either on the basis of previous experience or after having discussed and sounded out the possible loan with a number of banks. The bank selected is granted a mandate to

³⁰ For Argentina, Bolivia, Chile, Colombia, and Peru see Jorgensen and Sachs (1988); for the Brazilian case see Cardoso and Dornbusch (1989, 118-122), and for Mexico see Bazant (1968, 215-227).

³¹ Arguably not the important ones such as Mexico or Brazil, but for example one like Uruguay or Paraguay.

³² As it was pointed out previously, variable-interest rate loans became the norm since the early 1970s, and the negotiation on the matter centred then on the spread (usually above LIBOR) that the credit would pay.

coordinate the formation of a lending syndicate... Large money center banks are usually safe choices for this role of “lead bank” (Gurria 1985, 116).³³

Table 4.3. Organisation of a Syndicated Loan

Steps in the Syndication Process	
1. Mandate issues to lead manager.	10. Telexes sent to pre-selected group of banks to be invited to participate.
2. Invitation sent to other banks to join management group.	11. Marked-up copy of draft loan agreement submitted to the management group.
3. Draft loan agreement and syndication memorandum submitted to borrower.	12. Revised draft loan agreement sent to banks invited to participate.
4. Revisions to syndication memorandum to be agreed to by borrower.	13. Final allocation of participations made.
5. Response required from banks to join management group.	14. Last date for comments on loan agreement from participating banks.
6. Formal fully-underwritten offer, telex sent to the borrower.	15. All proposed revision to loan agreement advised to borrower.
7. Borrower approves final proof of syndication memorandum.	16. Final draft loan agreement is sent to participants and to borrower.
8. Borrower gives comments on loan agreements.	17. Earliest date for signing loan agreement.
9. Borrower advises lead manager of its acceptance of the underwritten offer.	

Source: *The Financial Times*, “Syndicated Loans”, in the World Banking Survey, May 21, 1979 (reproduced by Devlin 1985, 302).

If the borrower seeks an important bank to lead its loan, the smaller banks follow that same bank for similar reasons: the know-how that apparently guarantees a good deal. A top bank signals that the country's risk is, at least, at a point like “B”. For example, Devlin's (1989, 152-156) detailed analysis of the cases of Peru and Bolivia, and the information on publicised Euroloans to Mexico (see Table B17) points in that direction: the biggest U.S. banks usually spearheaded the entrance of a sovereign into the markets.³⁴ The information available from the three countries indicates that in their first incursions in the Euromarkets they paid spreads above LIBOR that decreased with further borrowing. As the country advanced in its penetration of the capital markets (with more banks becoming interested in lending to it) perceived country risk diminished and lower spreads obtained –i.e. the borrower moving away from “B” and nearer to the origin. Other factors, such as the lack of negotiating experience, the willingness to pay a hefty price to ensure the entrance to the Euromarkets may also explain those relatively high spreads. Risk perception, however, is the overriding factor, as it is shown in the cases of countries that are not risky (because of their prestige and/or their low levels of debt) and enter the Euromarkets. Two examples are Belgium and China; both countries borrowed through syndicated Euroloans for the first time in 1979. Belgium obtained the second-lowest spread in the year (0.438%), only outstripped by New Zealand; China was not far away, sharing the fifth place with the United Kingdom: it borrowed \$8.9 billion with a 0.500% spread (Euromoney 1980a, 40; 1980e, 17).

But for a country that is entering the Euromarkets because it has been barely able to catch the eye of commercial bankers after much jumping, the situation is radically different. How is the spread determined? Plainly, looking at the spreads paid by other countries that share a similar risk perception, to which a fraction can be added for the fact that it is just entering the markets. Bolivia is a case in point.

³³ This article presents the borrowing strategy a sovereign should follow when dealing with the banks

³⁴ The banks that opened the doors to the Euromarkets for Peru were Wells Fargo, Dresdner, Manufacturers Hanover, and Citicorp. For Bolivia, Bank of America (BOA), Dresdner, Citicorp, and Banca Nazionale de Lavoro, while for Mexico some key banks were Chemical Bank and BOA (see the following chapter for details). All the banks mentioned, except Wells Fargo, were then among the most important in the world –with BOA and Citicorp fighting the first and second places (see Table C16).

Before 1974 the country had little access to bank loans, except for guaranteed export credits. Early that year Bank of America organised a \$25 million syndicate for the government, with a high spread for the period: 1.875% (Devlin 1989, 154-155). Extremely high if it is considered that countries that had recently rescheduled their debts (that is, far from having an unblemished record) were borrowing with spreads that on average were slightly above the 1% mark (see Table B18).

There are two radically different ways to look at the gap between the spread that during the 1970s and early 1980s was paid by prime customers such as France or Sweden, and the one paid by countries like Pakistan or Lesotho.³⁵ The first, and apparently the one taken by all the participants in the markets, is to compare them without any additional reference. For example, during 1976 the loans to Guyana and Cameroon had the highest spreads in the markets: 2.250%. Therefore both countries were paying more than the double -106.6 percent more- than the 1.089 points above LIBOR that Electricité de France (EDF, the top borrower that year) had to cover for a loan (Euromoney 1980e, 17). Under that perspective, it is not surprising that borrower and syndicate leaders reached stages of acrimony while negotiating a loan over a difference of 0.125%³⁶, and that Euromarkets' analysts also judged sovereign borrowers as realists or attempting to walk on water following the same yardstick. Two (out of many) samples of the section "Syndicated Loans: Commentary" published in every issue of *Euromoney* clearly show the pattern of those analyses, just a few months away of the August 1982 default by Mexico:

In response to market pressure... borrowers... have been forced... even to bite the bullet by paying an additional 0.125% on the spread. The cosmetic 0.375% element³⁷ is clearly of importance to more than one European borrower. But the Bank of Greece has chosen to pay (a spread of) 0.500% throughout in response to the market's present mood... This strategy has attracted 18 major banks at the lead management level, together with compliments from the banking community on Greece's realism. Portugal, on the other hand, has chosen to retain the 0.375% element, albeit for the last year only, at the expense of an increased front end fee (1982b, 194).

Mexico and Peru have accepted the necessity for increased pricing and have been rewarded for their realistic approach with a better reception in the market than expected. However, Venezuela has so far refused to accept higher margins and is now risking failure for the sake of 0.250% per annum³⁸ (1982c, 186).

An absolutely distinct way is to consider the spread as what it really is: the topping of an interest rate such as LIBOR or Prime. Following the previous example, six-month LIBOR (usually the rate that served as base for borrowing) averaged 6.03% during 1976; EDF was thus paying then an interest rate of 7.119% on its loan, while Cameroon and Guyana had a rate of 8.28% on theirs, a difference of 16.3 percent. And it must be pointed out that LIBOR in 1976 reached its lowest nominal yearly average in the 1973-82 decade (see Table C1), while spreads were relatively high. A very different situation from the one that prevailed a few years later (LIBOR would peak and spreads would bottom in 1981³⁹). For

³⁵ Countries selected as examples because of their constant placement at the top and bottom echelons of the *Euromoney Country Risk League Table*. See also Figures 4.9 to 4.13.

³⁶ Spreads nearly always varied in steps of 1/8%. For example, the credit for Electricité de France just mentioned paid 1.125% for the first five years and 1% in the final two years, hence the 1.089% average spread.

³⁷ That is, a loan with a tranche paying a spread of 0.375%, even if it paid higher spreads on other segments.

³⁸ The negotiations were for a \$2 billion jumbo-loan, and fell through because both parts were unable to agree on the spread. See McGirk (1982, 123-124) and Grant (1982, 21-31) for details.

³⁹ Many analysts expected a direct relation between LIBOR and spreads, with the rationale that if interest rates increased it meant an increasing demand for funds, or a reduction of liquidity, thus bringing along higher spreads. However, in reality there was an inverse relationship between both. The explanation of Euromoney for this was that when LIBOR went up, the demand for

example, during 1980, the most finely priced loans paid a 0.375% spread (obtained for example by France's *Crédit National* and Norway's *Statoil*⁴⁰), while the Kingdom of Lesotho had to pay a 1.750% spread (see Figure 4.10), a difference between them of 466.7%. But taking into consideration that LIBOR averaged during that year 13.83%, the difference between the respective interest rates (LIBOR plus spread) the difference plummets to 9.7%. The implications for interest payments have, of course, to be derived not from the spread alone, but from the magnitude of the whole interest rate. Therefore, if for example both Statoil and Lesotho had borrowed \$100 million dollars each, the yearly interest bill would have been of \$14.205 million for the Norwegian company, and \$15.58 million for the Lesothian government. It is astonishing, to say the least, that the \$1.375 million difference (result of the 1.375 percent gap between the spreads) reflected for the banks that formed the respective syndicates⁴¹ the risk differential between both sovereign borrowers that were, at least on the spread front, in the opposite extremes of the spectrum.⁴²

That kind of differences between prime countries and the least important of LDCs was the norm in the Eurocurrency markets, at least after 1973 (before that year there was no systematic collection of data on Eurocurrency transactions). As the *initial* spread of a country, risky or not, was determined by that paid by other countries, the *movement* of that spread through time went also along with those of other countries. This is clear from Figure 4.7: virtually all the spreads obtained by LDCs moved together through time in a sort-of band (from 1976 to 1979 the tendency was clearly downwards). The difference for the great majority of the credits granted to sovereign borrowers was between 0.750 and 1.250% during the 1975-80 period, and that considering that countries as different in development and prospects as South Korea, Spain or Burma were all grouped as LDCs. Figure 4.8 shows again that concordant movement between the average spreads for different groups of countries: industrialised, non-oil LDCs and countries that had rescheduled their debts.

Table 4.4 provides additional proof of that movement in concert of spreads. The correlation between the spreads paid by several countries during the 1978-82 period is extremely high. In the only two cases, out of a total of 66, where the observed correlation is negative, in both Brazil is one of the two countries involved. This is explained by the peculiar indebtedness policy followed by the Brazilian government: it always demanded long maturities in its loans, even if that meant paying high spreads (see Table D2).⁴³ Of the other 64 correlation figures, 42 present a positive figure of at least 0.500%

Enlarging the scope to include absolutely all sovereign borrowers the story is not different. Figures 4.9 to 4.13 display the position those countries had as borrowers with respect to the spread and

loans went down, and competition between banks to win the smaller volume of available business drove spreads down (Euromoney 1980c, 20).

⁴⁰ See Appendix D for selected borrowing statistics of several countries and Table D15 for the examples mentioned.

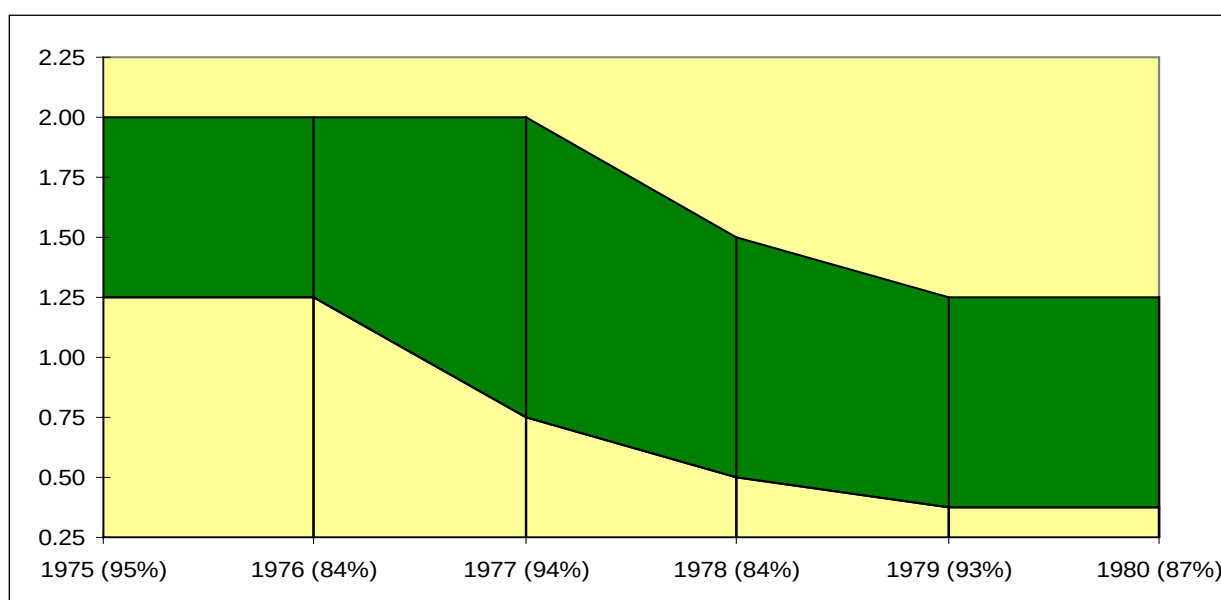
⁴¹ And that \$1.375 million was to be distributed among the (usually) dozens of banks that joined the syndicate. It must be considered, however, that most probably the fees paid by Lesotho were superior or much superior to those paid by Norway. Nevertheless, it is then not surprising that the 1970s saw an explosion in borrowing from many LDCs, not only in the amounts, but also in the number of countries that successfully entered the Euromarkets. With many of those countries having primitive, or underdeveloped financial systems, the possibility of obtaining hard currency at an interest rate very close to that paid by industrialised countries should have seemed to their governments as manna from heaven.

⁴² Of course, it is even more extraordinary with the benefit of hindsight. This issue will be explored in detail later in the chapter.

⁴³ Two countries stand out because of their exceptional external indebtedness policies: Brazil, for the reasons already described, and Venezuela, because many of its SOEs borrowed mainly through 1-year loans, to finance investments while Congress, that usually took a long time on the process, authorised the budget. This strategy eventually proved disastrous for Venezuela, when the international capital markets closed in 1982 (McGirk 1982, 123-129).

maturity of their loans from 1978 to 1982. The range of the spreads is naturally greater than that when only LDCs were included. But even considering all countries that scope rarely reached two percentage points. Considering that LIBOR averaged 10.53 percent in 1973-82, that means a difference inferior to 20 percent, and *that* between the two countries in the opposite extremes of the spectrum. The evidence that the determination of spreads for one country is at the very least heavily influenced by the ones paid by others is overwhelming. Once a country managed to borrow –reaching at least a point like “B” in Figure 4.6- its perceived risk differential with other countries was minimal. Thus, for most creditors the crucial factor of risk perception was to know if a sovereign had access to the capital markets or not.

Figure 4.7. Scope of Spreads^a on Publicised Euroloans for LDCs^b, 1975-80
(percentage points above LIBOR)

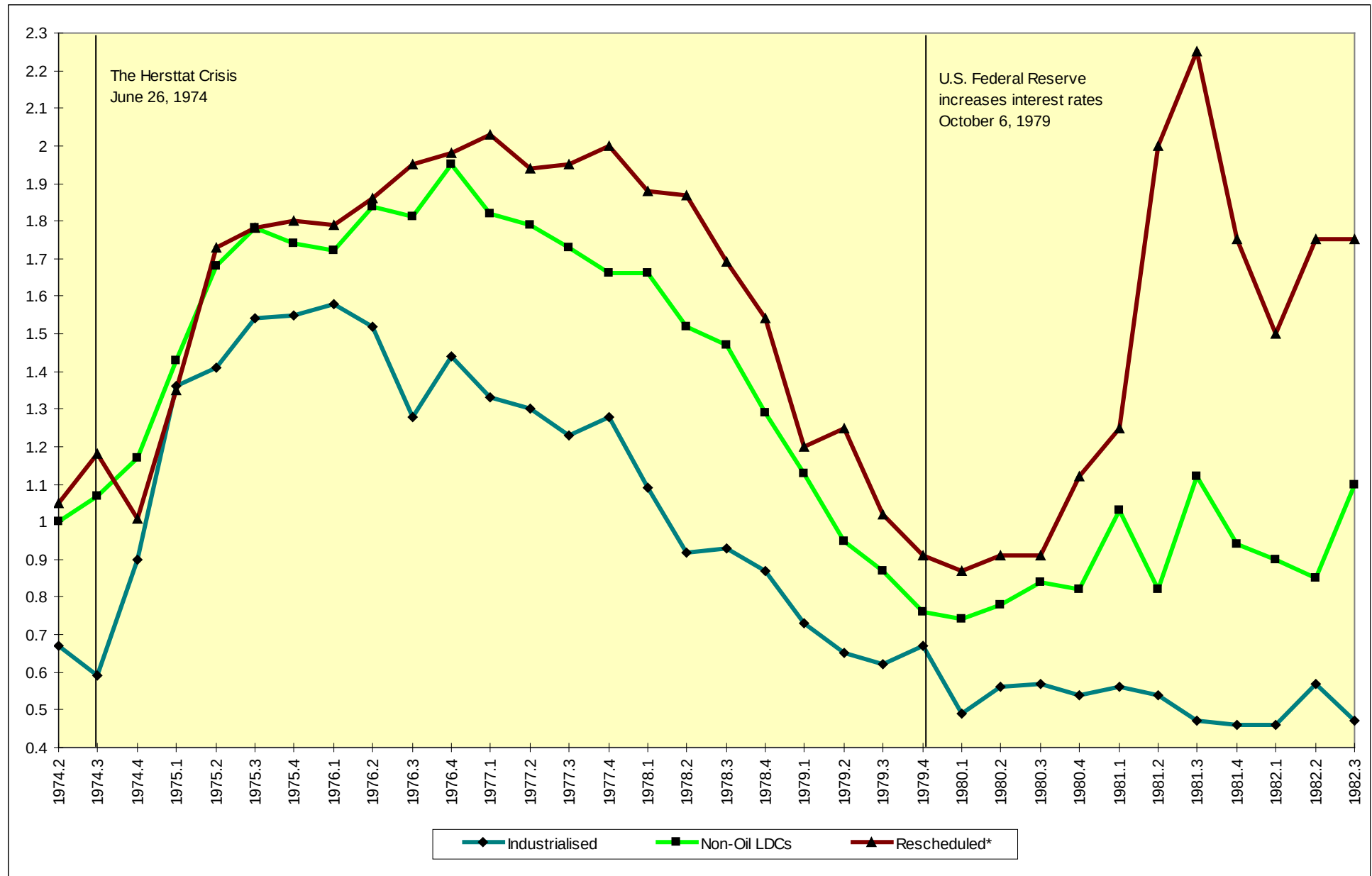


a. For example, of the Eurocurrency loans to LDCs in 1975, the spread of 95 percent of the total value was in the 1.25- 2.00% range.

b. Based on World Bank classification of LDCs, that included so diverse countries as Spain, Sudan, Papua New Guinea, Hong Kong, Ivory Coast, South Korea, Burma, Pakistan, Brazil, Jordan, Thailand, Algeria, Ecuador, Jamaica or Tunisia.

Source: Elaborated with data from Table C17.

Even the gap between the average spread obtained by LDCs, and that achieved by industrialised countries was minimal (with the maximum difference inferior to 70 basis points) or virtually non-existent in some periods (Table 4.5). Apparently in the 1970s several LDCs and COMECON countries were ranked by the markets with similar potential developments than more advanced economies. Otherwise it would be difficult to understand how Mexico and Romania were paying the same interest rate for their loans than Hong Kong, that the same happened between Canada and Papua-New Guinea, or that the USSR benefited from better spreads than Norway or Malaysia. It is also difficult to conceive that India paid lower interest rates than Denmark or Australia (Table 4.6). It would seem, then, that the spread might be expressing many things, but certainly not country risk perception. However, the spread may really be expressing the risk perception by bankers, but one very different from the one usually envisioned. If lenders provided money to sovereign borrowers with the notion summarised by the phrase that “countries can’t go bankrupt”, then (with a long run perspective) it would be explicable that perceived risk differentials were actually small, because all sovereigns would eventually pay their loans.

Figure 4.8. Spreads above LIBOR paid by Different Country Groups, 1974-82
(percentage points)

Source: Constructed with data from Table B18.

Table 4.4. Correlation between Spreads on Selected Eurocurrency Loans to Sovereign Borrowers^a

	Argentina	Brazil	Denmark	France	Hungary	Malaysia	Mexico	Nigeria	Philippines	Romania	S. Korea	Venezuela
Argentina	1.000											
Brazil	0.492	1.000										
Denmark	0.783	0.072	1.000									
France	0.779	0.482	0.918	1.000								
Hungary	0.690	0.396	0.752	0.765	1.000							
Malaysia	0.680	0.085	0.906	0.866	0.725	1.000						
Mexico	0.732	0.363	0.806	0.874	0.866	0.869	1.000					
Nigeria	0.431	-0.364	0.629	0.464	0.376	0.800	0.505	1.000				
Philippines	0.643	0.365	0.776	0.773	0.841	0.653	0.784	0.277	1.000			
Romania	0.900	0.635	0.929	0.810	0.822	0.910	0.875	0.459	0.730	1.000		
S. Korea	0.226	-0.280	0.706	0.586	0.375	0.641	0.421	0.491	0.500	0.401	1.000	
Venezuela	0.595	0.102	0.555	0.396	0.530	0.600	0.649	0.460	0.396	0.707	0.256	1.000

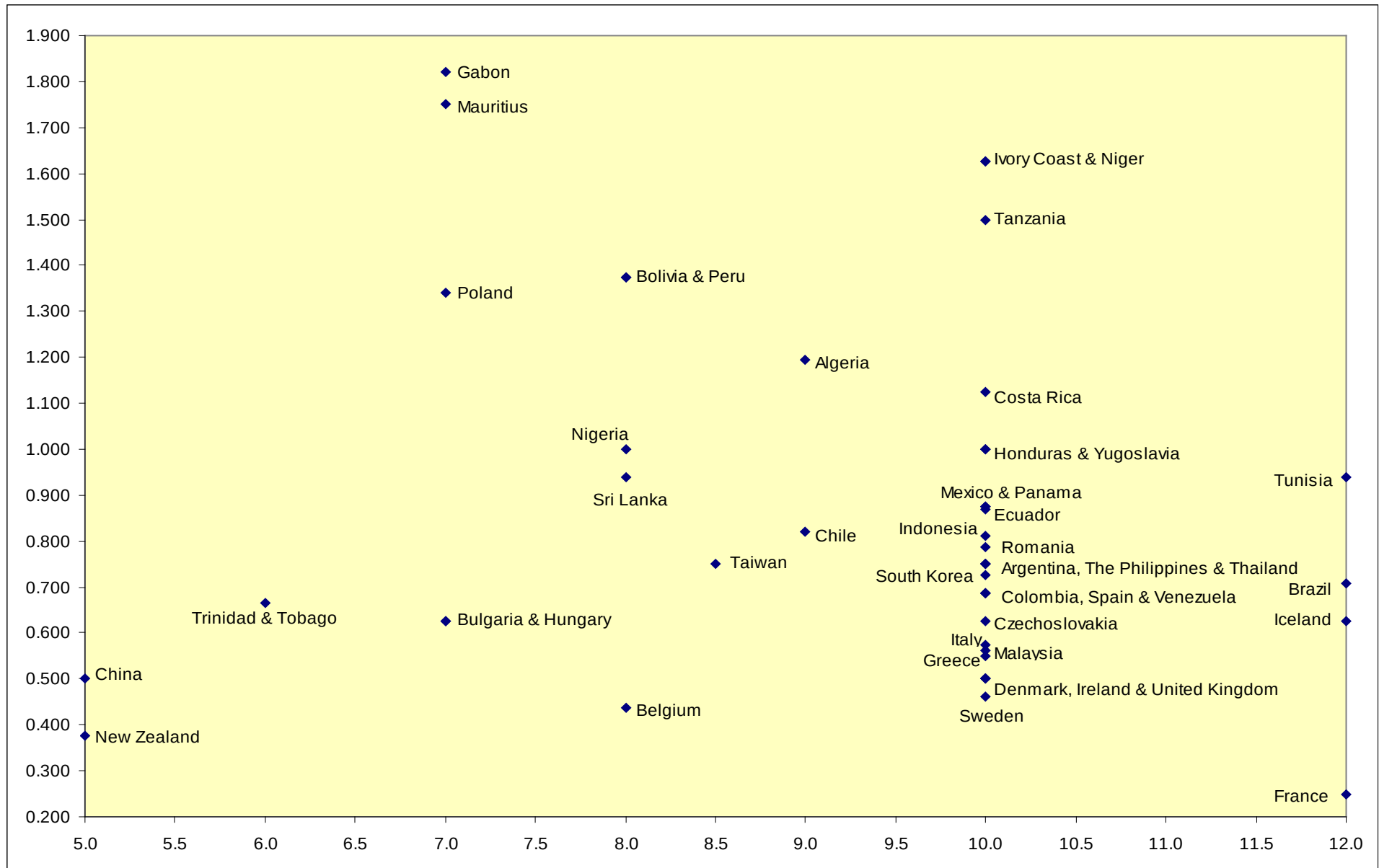
a. Quarterly series from 1978 to the second quarter of 1982. Very few countries went to the Euromarkets to borrow publicly continuously, and many borrowed not only through the central government, but also through other public bodies such as the central bank, development banks or SOEs. Even when considering data from various public borrowers for each country included here (see Tables D1 to DX in Appendix D) it was not possible to construct continuous series. To obtain continuous series to be correlated, it was assumed that the spread of any quarter where no public borrowing was registered, the spread was the average of the previous and the following quarters where borrowing had taken place. As it is clear from Table DX, the changes between quarters that had blanks in-between were usually extremely small.

Source: Calculated with data from Tables D1 to D12.

Figure 4.9. Spreads above LIBOR and Maturities on Eurocurrency Loans to Sovereign Borrowers, 1978
(percentage points and years)

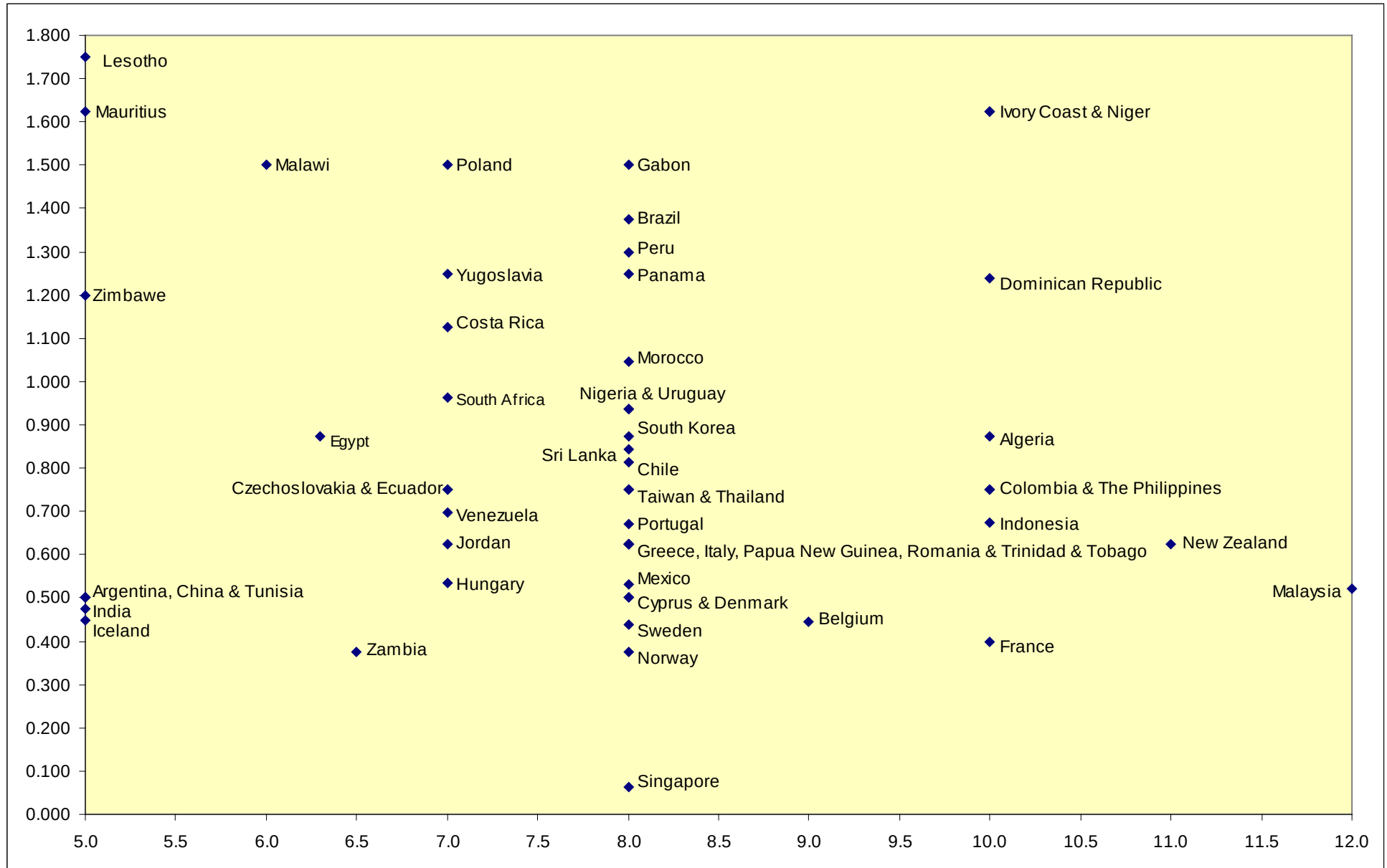
Source: Constructed with data from Table D13.

Figure 4.10. Spreads above LIBOR and Maturities on Eurocurrency Loans to Sovereign Borrowers, 1979
(percentage points and years)



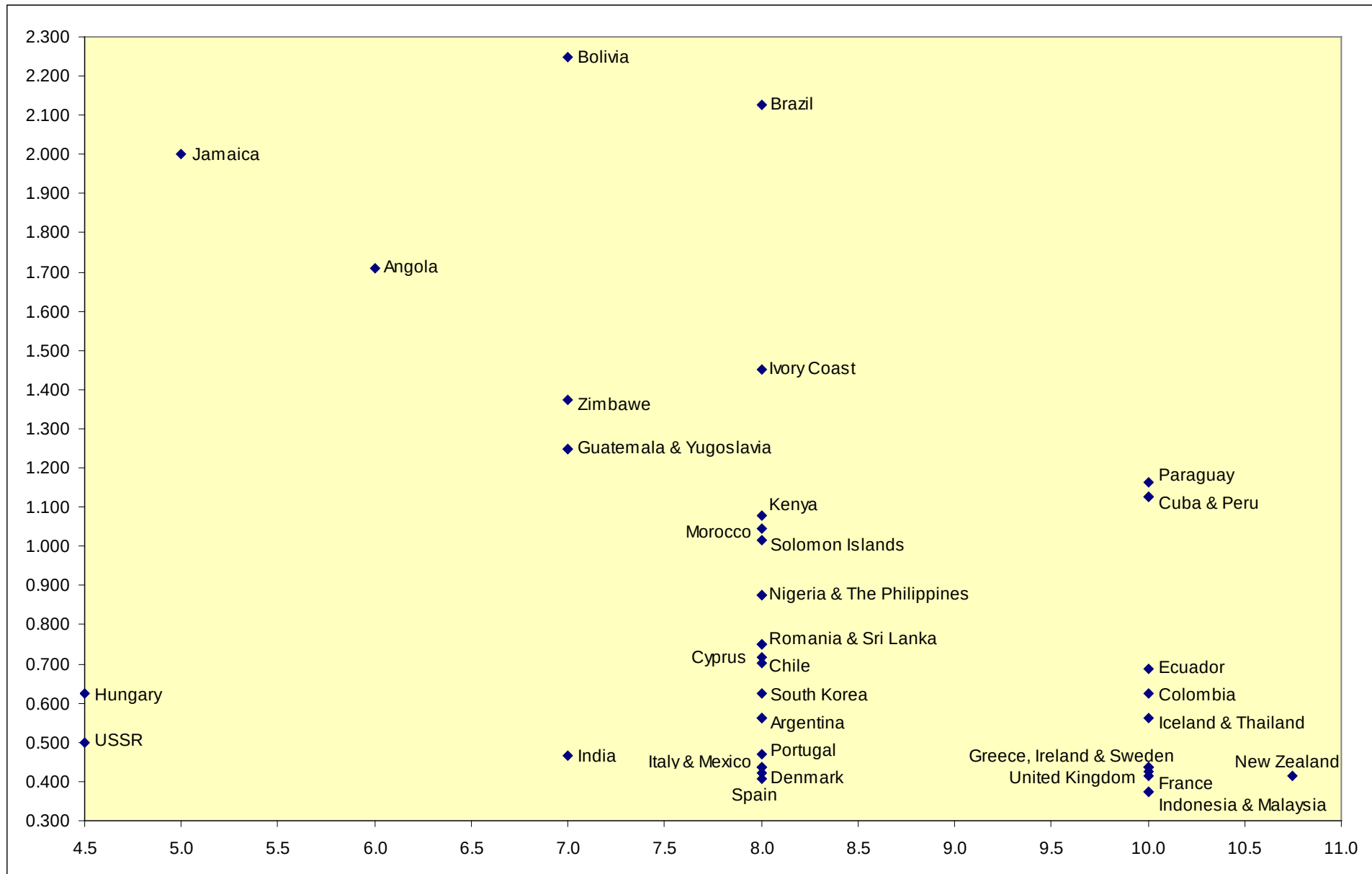
Source: Constructed with data from Table D14.

Figure 4.11. Spreads above LIBOR and Maturities on Eurocurrency Loans to Sovereign Borrowers, 1980
(percentage points and years)



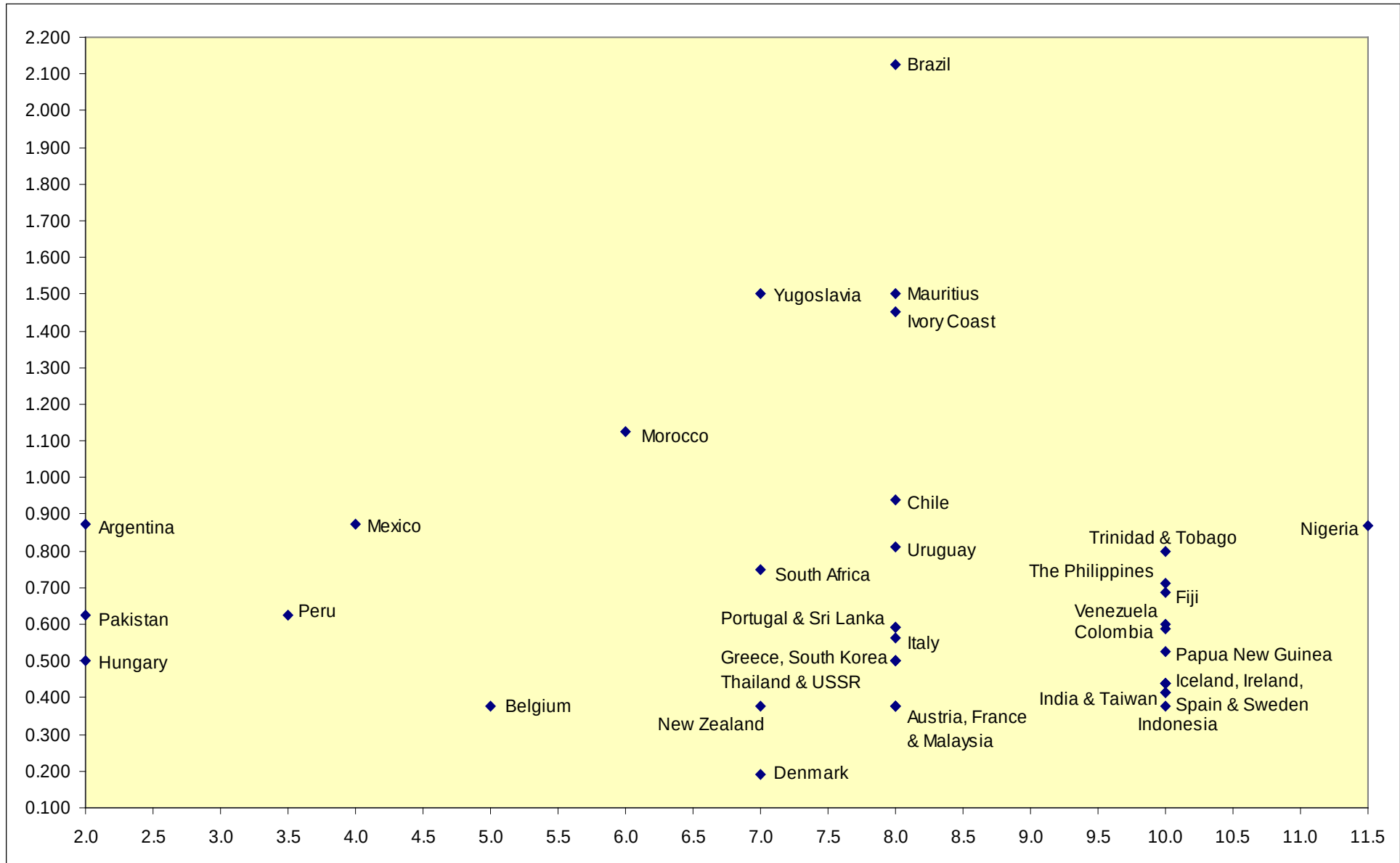
Source: Constructed with data from Table D15.

Figure 4.12. Spreads above LIBOR and Maturities on Eurocurrency Loans to Sovereign Borrowers, 1981
(percentage points and years)



Source: Constructed with data from Table D16.

Figure 4.13. Spreads above LIBOR and Maturities on Eurocurrency Loans to Sovereign Borrowers, 1982
(percentage points and years)



Source: Constructed with data from Table D17.

Table 4.5. Spread Differentials on Publicised Euroloans to Industrialised and Non-Oil LDCs (percentage points)

Quarter	1974	1975	1976	1977	1978	1979	1980	1981	1982
I	0.33	0.27	0.32	0.49	0.60	0.30	0.22	0.28	0.28
II	0.48	0.24	0.53	0.50	0.54	0.25	0.27	0.65	0.63
III	0.27	0.19	0.51	0.38	0.42	0.09	0.28	0.48	-
IV	0.07	0.14	0.49	0.57	0.40	0.25	0.47	0.44	-
Average	0.29	0.21	0.46	0.49	0.49	0.22	0.31	0.46	0.46

Source: Calculated with data from Table B18.

Table 4.6. Differentials between Interest Rates paid by 50 Sovereign Borrowers in 1979 with respect to that paid by New Zealand^a (percentages)

Country	Interest Rate ^b	Differential ^c	Country	Interest Rate ^b	Differential ^c
Belgium	12.07	0.49	Mexico	12.39	3.04
France	12.08	0.58	Hong Kong	12.39	3.06
Sweden	12.11	0.83	Romania	12.39	3.08
China	12.13	1.00	Argentina	12.40	3.11
United Kingdom	12.13	1.00	Spain	12.41	3.25
Greece	12.16	1.23	Colombia	12.47	3.70
USSR	12.19	1.44	Chile	12.50	3.95
Malaysia	12.19	1.51	Brazil	12.53	4.16
Norway	12.20	1.55	Morocco	12.59	4.64
India	12.20	1.56	Kenya	12.66	5.10
Denmark	12.20	1.57	Nigeria	12.66	5.13
Czechoslovakia	12.22	1.73	Cuba	12.70	5.45
Hungary	12.24	1.86	Algeria	12.76	5.89
Australia	12.24	1.90	South Africa	12.98	7.51
Finland	12.26	2.01	Bolivia	13.01	7.66
Italy	12.27	2.16	Peru	13.03	7.82
East Germany	12.28	2.17	Cameroon	13.13	8.54
Iceland	12.29	2.25	Tanzania	13.13	8.54
Venezuela	12.30	2.39	Ivory Coast	13.27	9.47
Fiji	12.31	2.41	Turkey	13.38	10.23
Bulgaria	12.32	2.54	Gabon	13.45	10.72
South Korea	12.35	2.75	Ethiopia	13.51	11.08
Thailand	12.36	2.82	Pakistan	13.63	11.87
Canada	12.38	3.00	Guyana	13.63	11.89
Papua-New Guinea	12.38	3.00	Madagascar	13.67	12.13

a. New Zealand paid that year the lowest average spread for borrowing in the Euromarkets: 0.379%.

b. Average spread paid by the respective country that year, plus the 1979 average LIBOR interest rate: 11.63%

c. Percentage difference with respect to the average 12.009% rate paid by New Zealand.

Source: Calculated with data from Euromoney (1980a).

As Folkerts-Landau (1985, 317-318, 332) points out, until the Great Depression, when lending was primarily done through the bond market, if a country was unable to pay, it defaulted. Thus, interest rates included risk premia to compensate for that possibility. In addition, a debtor would default selectively on a given stock of outstanding bonds. On the other hand, as already detailed, clauses in the loan contracts with bank syndicates ensured that all creditors enjoyed equal treatment. Moreover,

syndicates had their heads -usually the biggest banks- as natural leaders and representatives; to form a creditors' cartel was much simpler than with bondholders. As a result, outright default was replaced by rescheduling. With loans based on floating rates, the spread reflected *that risk*. Without delving into historic precedents, McDonald (1982, 630) presents a similar argument in a more refined way, contending that it is not the probability of rescheduling that determines spreads, but the expected present value of any ensuing loss, that will depend on the loan renegotiation terms. This perspective is also consistent with very small differentials between spreads, as until the late 1970s the banks' experience with reschedulings was poor and the amounts involved very small.⁴⁴

If small spread differentials are explained because bankers adopted the "countries can't go bankrupt" as an axiom, then private firms and sovereign nations should have been "different" to their eyes; paid different interest rates. According to the information provided by Folkerts-Landau (1985, 332 and 334), that was indeed the case. For example, during 1979-82, the average interest rate on loans to non-oil LDCs consistently remained below that on large corporate loans (presumably for prime clients) in the United States (Table 4.7).

Table 4.7. Comparison of Interest Rates on Foreign and Domestic Bank Loans, 1979-82
(percentage points, averages during the quarter)

Period	Domestic Bank Loan Rates ^a (1)	Interquartile Range of (1) ^b (2)	Money-Centre CD Rates of Return (3)	Spread on Domestic Loans (1)-(3) (4)	Interest Rate for Non-Oil LDCs (5)	LIBOR (6)	Spread on Loans to Non-Oil LDCs (7)
1979.1	12.0	1.7	10.7	1.3	12.1	11.2	0.9
1979.2	12.3	1.5	10.3	2.0	11.5	10.7	0.8
1979.3	12.0	1.0	11.0	1.0	12.3	11.6	0.7
1979.4	15.8	1.0	13.7	2.1	15.1	14.4	0.7
1980.1	18.3	2.2	15.3	3.0	16.7	16.0	0.7
1980.2	18.3	2.2	11.3	7.0	13.4	12.7	0.7
1980.3	11.3	1.0	10.2	1.1	11.8	11.0	0.8
1980.4	15.0	1.0	15.1	-0.1	16.7	15.7	1.0
1981.1	19.1	1.5	15.4	3.7	17.1	16.3	0.8
1981.2	19.2	0.7	16.3	2.9	18.1	17.0	1.1
1981.3	20.7	0.6	17.5	3.2	19.2	18.3	0.9
1981.4	17.6	2.1	13.9	3.7	15.7	14.8	0.9
1982.1	17.7	1.0	13.0	4.7	16.0	15.2	0.8
1982.2	16.7	1.3	12.6	4.1	16.2	15.1	1.1

Note: The original table includes the comparison data until 1983. It is cut here to cover only after the second semester of 1982 because after that period all spreads between banks and many LDCs (those that faced rescheduling difficulties) were negotiated as part of the so-called "involuntary loans" and not determined in the Euromarkets.

a. Large long-term U.S. corporate loans with floating interest rates.

b. Interest rate range that covers the middle 50 percent of total dollar amount of loans made.

Source: Folkerts-Landau (1985, 334).

An additional reason that would explain why spreads between industrialised countries and LDCs were so close is that, during the 1970s, there was a very different perception on the potentialities of many countries, that later proved erroneous. An example is the World Bank classification where, for example, South Korea is in the "middle-income LDCs" group along with Cameroon and Bolivia, and

⁴⁴ Negotiations with Zaire, in 1976, were the first with major commercial bank involvement. The debt owed to the banks was

Spain and Greece in the “higher-income LDCs” group, with Zambia and Guyana as peers. The prospects of many LDCs looked bright in the 1970s, when the price of many commodities increased considerably, while many industrialised countries were mired in recessions. As an outstanding example, it is worth to quote in length from the main article of the March 1977 issue of *Euromoney*:

Anyone who looks for an obvious logic in the way today’s Euromarkets assess the quality of sovereign credit faces an impossibly difficult task. Where is consistent logic in a market that will lend an enormously indebted United Kingdom \$1.5 billion for seven years at an apparently ridiculously low spread of 0.875% and that will, at the same time, fight long and hard to prevent the margin on a jumbo loan to a relatively healthy borrower like Venezuela from falling below 1.125%?... The inconsistencies are becoming more and more apparent... Iran negotiated a spread of 1.250% on a credit of \$500 million for a similar seven year maturity. Even Malaysia, a relatively underborrowed country, would probably not get the same spread as Britain (*Euromoney* 1977b, 7-8).

If at least some bankers shared that view, it is understandable that the spreads bestowed to promising countries like Venezuela or Mexico were so near to those paid by industrialised, but seemingly stagnant, nations. However, even when the difference between the spreads covered by the bulk of sovereign borrowers was very small, and spreads were moving in concert, the position of countries relative to others changed through time, as it is evident in Table 4.8. Naturally, the changing positions were interpreted as a reflection of the perceived country risk, even if the spread differential was small (Haegele 1980). A possible explanation is that, even if countries may move together in a band, there are movements *within* the band, as a country, changes in the relative position of the borrower, and caused by *domestic* factors. To try to find an answer to that, however, at least the case of one specific country has to be studied in great detail.⁴⁵

A supplementary explanation for the small differential between spreads paid by very different countries would be that other features of the loan compensate for risk perception, such as its maturity or the fees attached to it. However, only a very short maturity -much shorter than the typical in the markets- would reflect the perception of a great risk.⁴⁶ If maturity really reflected risk, then the countries included in Figures 4.9 to 4.13 would follow a trend such as the one followed by “A” in Figure 4.14, with lower spreads coexisting with longer maturities. As it is evident from those Figures, that is not the case. Although the majority of countries are in quadrants I and IV, those in quadrants II (high spread but long maturity) and III (low spread but short maturity) are numerous enough, while other countries break the “A” pattern even when located in the “right” quadrants. That may be explained because maturity may go related to other factors, such as the purpose of the loan.

\$150 million (Bee 1977, 36). See also Table 4.2.

⁴⁵ The case of Mexico will be studied in the following chapter.

⁴⁶ And detailed, that turns out to be a miscalculated way to compensate for increased risk perception; the short-leash fallacy.

Table 4.8. Spread Rankings of 19 Countries, 1974-81^a

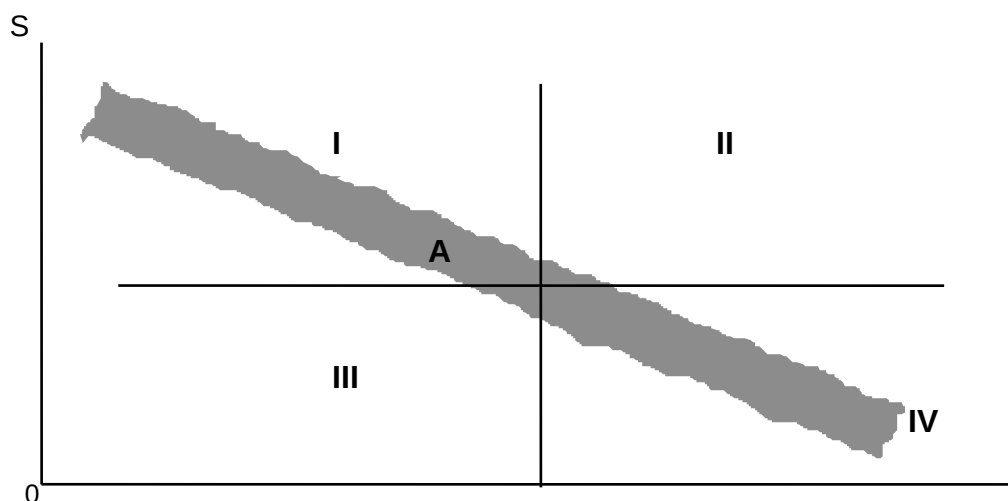
Borrower	1974	1975	1976	1977	1978	1979	1980	1981
Industrialised								
Canada	7	1	4	9	1	11	5	5
Denmark	3	9	5	8	7	5	6	6
Finland	6	5	9	7	6	6	3	2
France	1	4	1	1	2	1	2	3
Italy	4	11	11	10	12	7	9	9
Norway	13	10	8	4	5	4	8	8
Sweden	11	2	3	2	4	2	4	4
United Kingdom	2	3	7	3	3	3	1	1
Oil-Exporting								
Iran	5	8	6	6	9	- ^b	- ^b	- ^b
Indonesia	9	12	16	14	10	9	- ^b	7
Mexico	8	6	10	11	13	12	7	11
Venezuela	10	7	2	5	9	8	13	10
Non-Oil LDCs								
Argentina	18	18	15	13	15	13	10	14
Brazil	17	14	19	19	16	16	15	18
Gabon	19	16	17	17	19	18	- ^b	- ^b
Ivory Coast	14	15	18	18	18	17	16	17
South Korea	15	17	14	12	11	10	12	12
Panama	12	13	13	16	17	14	14	16
Philippines	16	19	12	15	14	15	11	15

a. 1982 not included because of the international debt crisis that was to begin in August.

b. No borrowing paying a spread above LIBOR.

Source: Haeghele (1980, 122) for 1974-78, Euromoney (1980a) for 1979; (1981a) for 1980 and (1982a) for 1981.

Figure 4.14. Expected Spreads and Maturity Drift When both Factors Reflect Perceived Risk



On the other hand, fees seem to provide a strong counterweight to the small spread differential.⁴⁷ According to a seasoned sovereign negotiator during the 1970s and 1980s:

⁴⁷ The problem, as Euromoney puts it, is that "As every market participant knows, these (fees) are an important part of every loan. They are an important part of banks' total return on assets, and an important cost to borrowers. Drawback: they are

Although some lenders will regard the distribution of fees as strictly the banks' affair, borrowers should not share this view. Fees are becoming an increasingly important element of loan arrangements. If the lead bank or the lead group of banks attempts to capture too large a share of the fees, it can jeopardise the success of the marketing effort. *There is an almost direct relationship between the size of the fees that are distributed and the success in the marketing of any operation* (Gurria 1985, 118-119; emphasis added).⁴⁸

Looking at all the data on sovereign borrowing, it is not surprising that analysts have faced great shocks when trying to wed the theory that (substantial) interest rate differences should go along different country risk perceptions with the standard (narrow) differences of the Euromarkets. Angeloni and Short (1980) suggested the possibility that commercial banks were not paying enough attention to risk, while Feder and Ross (1982)⁴⁹ inferred from their model that the spreads reflected that the bankers' expected loss rates were quite low. As McDonald (1982, 632) points out, this is consistent with the reduced financial losses that the banks had confronted (until then) as a result of reschedulings. The results derived by Edwards (1984, 733) showed that during the period analysed, 1976-80, spreads reflected very low probabilities of default. Eaton, Gersovitz, and Stiglitz (1986, 505) argue that spreads may reflect other factors, such as higher costs of originating loans in certain countries, or tax treatment of interest income earned by foreigners. However, those factors would help to explain a wider difference between the spreads paid by different sovereign borrowers, and not the opposite phenomenon. If indeed factors other than risk explained the small difference between spreads, then risk perception would play an even lesser role explaining that minute differential.

While the spreads' magnitude has received relatively abundant attention from a theoretical perspective, on the other hand another outstanding feature, their concerted evolution through time, did not attract much interest, even when their ride was a bumpy one after 1973. With the spreads for very different countries following a similar drift, the only factors that can explain any movement of the assemblage need to be global. The following section will study the development of the Euromarkets from 1973 to 1982.

frequently not available" (Euromoney 1980c, 18). Countries like Nigeria even offered 5% of the nominal value of the total loan in fees to attract lenders.

⁴⁸ See also the Euromoney (1982b).

⁴⁹ Both papers are quoted in the comprehensive survey by McDonald (1982, 629-630 and 632).

4.3.2. EVOLUTION OF THE EUROMARKETS, 1973-82

Up to the second quarter of 1974, conditions in the Euromarkets were very favourable, with abundant, low-spread and long-maturity loans (see Figures 4.8, 4.15 and Table 4.9).⁵⁰ This rosy scenario changed abruptly by mid-1974, with the collapse of Bankhaus I.D. Herstatt. Having incurred large foreign exchange losses, it was abruptly closed by the German Federal Supervisory Authority for Credit Matters on June 26. By closing Herstatt at the end of the banking day in Cologne but just after the beginning of the banking day in New York, where scores of Herstatt's foreign exchange contracts were in the midst of settlement, the German authorities inadvertently interrupted the international payments mechanism. Herstatt's principal New York clearing bank, Chase Manhattan, froze the account. Debit orders were not honoured; credits coming in were not returned. A race for Herstatt's New York assets by its creditors from around the world ensued (Bell and Heimann 1982b, 24). Before the Herstatt crisis, banks were "often prepared to lend on an interbank basis with relatively little financial analysis or personal knowledge of the borrowing bank... on the implicit assumption that a participant in the market possessed sufficient capital resources, support from stockholders (or parent bank) or a potential call on central bank assistance to be able to meet its obligations".⁵¹ Its collapse shocked the Euromarkets, which had not previously demanded risk premia for interbank transactions. Practically overnight, banks active in the Euromarkets fell from over 200 to less than 40.⁵² At about the same time as Herstatt's problems were becoming more visible in the spring of 1974, U.S. banking authorities were in the midst of a protracted attempt to prevent the collapse of Franklin National Bank, then the U.S. 17th largest bank. With international markets stability in mind, the Federal Reserve acquired Franklin's foreign exchange book when banks, fearing it would fail to perform on contracts, began to refuse to sell foreign exchange to Franklin (Ibid; Sarver 1990, 40-41).

Both events, particularly the Herstatt crash, provoked a crisis of confidence in the Euromarkets: rate tiering appeared, and many sound banks found difficulty getting access to funds simply on the ground of their (small) size. In the following months some financial institutions even paid 2 percent above LIBOR. That LDCs and even industrialised countries also faced restricted access in their borrowing, and much tighter conditions, just after the collapse (particularly during the third quarter of 1974) is clear in. By the last quarter of 1974, spreads had increased for all sovereign borrowers, particularly the industrialised countries (see Figure 4.8). The Herstatt shock virtually stopped on its tracks the explosive pace of borrowing in the Euromarkets (Table 4.9 and Figure 4.15). Until mid-1975 the markets started an upturn, but even then the total borrowed that year through syndicated loans was inferior in nominal terms to the 1973 total. In the meantime banks were the recipients of oil surpluses; and were also facing pressures to find additional recipients for their funds because of the recession suffered by industrialised countries (Devlin 1989, 48-49). But while loans started to flow again, conditions remained tight. Nevertheless, credit was attractive to many countries, not only because it cushioned the oil shock, but also because international interest rates turned negative in real terms (see Table C1) because of the inflation surge that the oil shock caused.

⁵⁰ Comprehensive data does not exist before 1973. However, data such as that compiled by Ffrench-Davis (1984, 142-143) at least confirms that between 1972 and 1973 spreads tumbled and maturities lengthened.

⁵¹ Davis, Steven I. (1980), *The Euro bank*, John Wiley & Sons, p. 76. Quoted by Bell and Heimann (1982, 18).

Table 4.9. The Herstatt Shock I: Publicised Eurocurrency Credits, 1973-75^a
(million dollars)

	Total 1973	1974.1	1974.2	1974.3	1974.4	Total 1974	Total 1975
Developed ^b	11124.9	3406.4	8958.7	2422.8	1667.5	16915.4	5069.3
Denmark	243.0	0.0	340.0	0.0	53.5	393.5	341.0
Finland	424.3	60.0	165.5	67.0	16.0	308.5	399.0
France ^b	63.0	220.0	2604.5	190.0	100.0	3303.5	506.1
Ireland	0.0	32.0	235.0	0.0	54.4	321.4	351.1
Italy	4713.0	840.0	1400.0	0.0	0.0	2240.0	120.0
Netherlands	252.4	75.0	440.0	12.8	30.0	557.8	75.9
New Zealand	0.0	0.0	35.0	419.0	36.0	490.0	113.0
South Africa ^b	498.4	0.0	251.0	100.1	90.0	626.1	547.5
United Kingdom ^b	3069.5	1545.9	3013.1	842.1	446.6	5896.7	601.9
Others ^b	1861.3	633.5	474.6	791.8	841.0	2777.9	2013.8
Oil-Exporters LDCs ^b	3012.6	322.0	166.0	66.0	192.6	807.5	3213.0
Indonesia ^b	478.0	187.5	0.0	0.0	0.0	367.5	1607.5
Iran	712.1	25.0	65.0	2.0	22.5	114.5	245.0
United Arab Emirates	330.0	0.0	86.0	60.0	5.0	151.0	6.3
Others ^b	1492.5	109.5	15.0	4.0	165.1	174.5	1354.2
Higher Income LDCs ^b	5280.5	1390.2	2589.3	1166.4	1422.4	6568.3	7855.4
Argentina ^b	87.3	130.2	282.5	0.0	85.9	558.6	34.4
Brazil ^b	718.1	195.4	427.3	303.0	481.8	1667.5	2119.8
Greece	599.6	250.0	59.6	128.3	0.0	437.9	239.0
Mexico ^b	1572.5	560.0	320.0	141.0	394.4	1478.4	2158.2
Panama	251.0	12.0	89.0	0.0	0.0	101.0	115.0
Peru ^b	733.6	80.0	130.0	92.0	34.0	366.0	433.3
Spain ^b	467.3	50.0	878.9	173.7	18.2	1169.0	1015.4
Yugoslavia ^b	235.0	54.6	116.1	77.4	268.3	549.3	72.6
Others ^b	616.1	58.0	285.9	251.0	139.8	240.6	1667.7
Middle-Income LDCs ^b	506.8	627.0	505.2	204.8	168.5	1620.2	1289.4
Bolivia	6.0	0.0	49.0	3.0	0.0	52.0	90.1
Egypt	0.0	50.0	80.0	100.0	0.0	230.0	0.0
South Korea ^b	142.0	80.0	11.0	80.8	14.0	299.5	325.7
Philippines ^b	178.5	437.0	340.5	8.0	83.5	883.0	253.1
Others	180.3	60.0	24.7	13.0	71.0	155.7	620.5
Lower-Income LDCs	316.7	263.4	41.9	20.0	11.5	291.3	71.3
Sudan	0.0	200.0	0.0	20.0	0.0	220.0	36.8
Zaire	286.9	29.4	41.9	0.0	0.0	71.3	27.0
Others	29.8	34.0	0.0	0.0	11.5	0.0	7.5
Total	20241.5	6009.0	12261.1	3880.0	3462.5	26202.7	17498.4

a. Includes credits to both public and private sectors. Credits for which date of completion is not available are excluded from quarterly data, but included in the 1974 total.

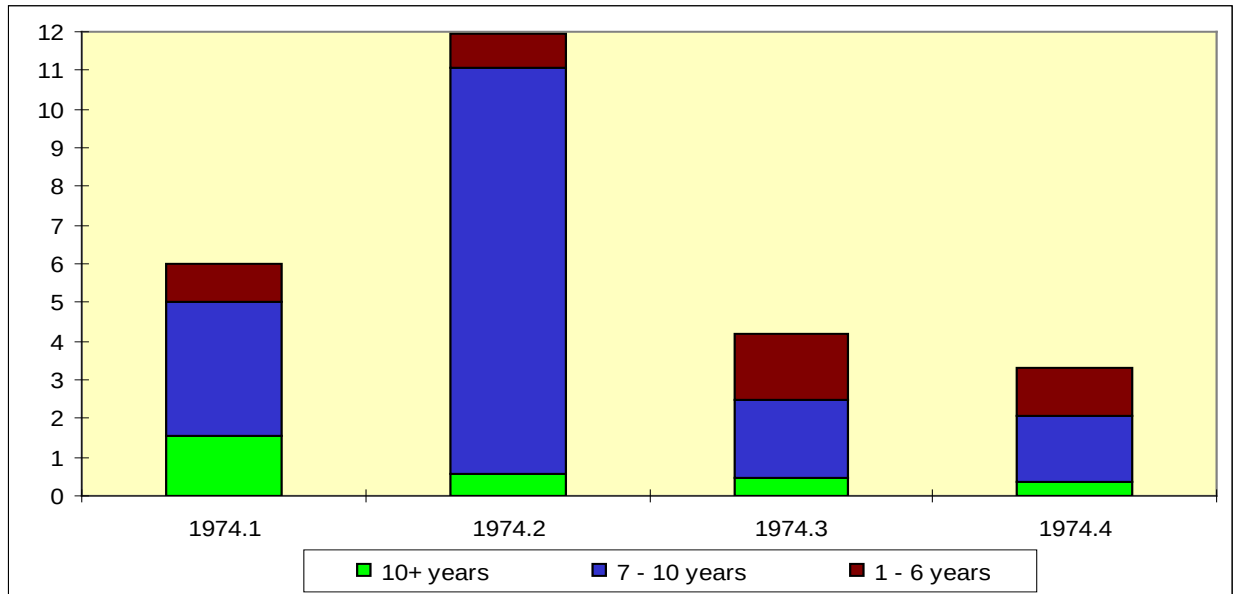
b. Credits for which date of completion is not available are excluded from quarterly data, but included in 1974 total.

Source: Constructed with data from World Bank(a), several issues.

Spreads peaked from the last months of 1975 to mid-1976 (see Figure 4.8). By 1977 lending increased while terms eased. The return of many banks that had abandoned the post-Herstatt market at least partially explains the accentuated tendency toward lower spreads and longer maturities. The evolution of the Euromoney Index (Figure 4.16) -that took into consideration the spread, maturity, and amount of the loans- clearly showed that tenor.

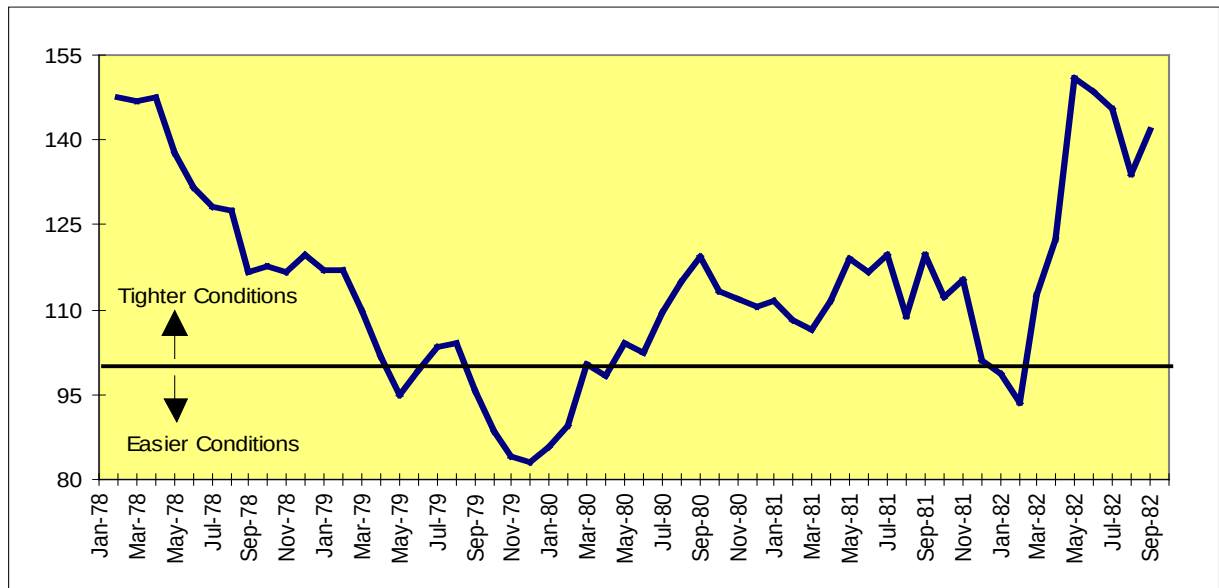
⁵² Aronson, *Money and Power*, p. 19. Quoted by Devlin (1989, 48n81).

Figure 4.15. The Herstatt Shock II: Amount and Maturity of Publicised Eurocurrency Credits, 1974
(billion dollars)



Source: World Bank (1975a, third quarter, 46).

Figure 4.16. The Euromoney Index of Terms and Conditions in the Syndicated Loan Market, 1978-82^a
(1979 = 100)



a. Three-month moving averages; includes all sovereign borrowers.

Source: Elaborated with data from Table C18.

The clearest signal that the ball was back in the borrowers' court was the open displeasure shown by lenders on the falling spreads, a sentiment particularly strong among big U.S. banks, the dominant players in the market. There were several unsuccessful attempts to collude and stop the spreads' fall. Early in 1977 Citibank, Manufacturers Hanover and Bank of America established a clear stance, refusing to break the 1% spread barrier, passing up several important deals. All three were forced to back down. That experience inhibited smaller players in the market from trying to adopt similar

tactics, and rather to be flexible to the market winds. European, Canadian and Japanese banks conducted the offensive (Table 4.10), while top U.S. banks continued on the defensive (Clarke 1978, 84-86; Clarke and Field 1978, 21; Euromoney 1978a, 10-15; 1978c, 114-124; Lim 1978, 10-18; Reich 1978, 35-36).

Table 4.10. The Top 20 Aggressor Banks in Euro-syndicated Lending^a, 1978-79

Rank	1978		1979	
	Bank	Spread	Bank	Spread
1	Svenska Handelsbanken	0.6358	Kredietbank International	0.5044
2	BEC	0.6580	PARIBAS	0.5168
3	Barclays Bank	0.7108	SG Warburg	0.5723
4	SG Warburg	0.7172	Sanwa Bank	0.5788
5	Sumitomo Bank	0.7450	AMRO Bank	0.6204
6	ABN	0.7553	Crédit Lyonnais	0.6245
7	Toronto Dominion Bank	0.7749	Commerzbank	0.6369
8	Hambros Bank	0.7856	Bayerische Landesbank	0.6371
9	CIBC	0.7893	Hambros Bank	0.6526
10	Dresdner Bank	0.8443	Société Générale	0.6561
11	Bank of Nova Scotia	0.8531	CCF	0.6570
12	First National Bank of Chicago	0.8603	Merrill Lynch	0.6601
13	Abu Dhabi Investment Co.	0.8623	SBC	0.6658
14	Deutsche Bank	0.8702	WestLB	0.6728
15	Iran Overseas Investment Bank	0.8745	CSFB	0.6748
16	Société Générale	0.8798	Bank of Tokyo	0.6750
17	Royal Bank of Canada	0.8844	Lloyds Bank Int.	0.6796
18	DG Bank	0.8860	United International Bank	0.6833
19	Den norske Creditbank	0.8869	First National Bank of Chicago	0.6834
20	Lloyds Bank International	0.8922	CIBC	0.6859
Ave. ^b		0.9990		0.8044

a. The 20 banks that offered, as lead-managers or joint lead-managers of a syndicate, the lowest average weighted spread (by maturity and volume). All banks that had managed less than five loans were excluded. Spread above variable interest rate US dollar and Deutschemmark loans only.

b. Average of the 82 banks that lead managed more than five loans.

Source: Euromoney (1980b, 65-66).

Spread barriers were broken downwards again and again, always with borrowers from industrialised countries (particularly France) spearheading the charge. Spreads arguably started to increase at the end of 1979 because of the U.S. monetary tightening, announced in October (see Figure 4.8). It can also be argued that spreads had simply reached very low levels, and the next move had to be upwards. But even when conditions became tighter, they were much more favourable than those prevalent in the mid-1970s. Moreover, those countries regarded as prime borrowers continued to achieve better conditions –both in spreads and maturities (Table 4.11).

Table 4.11. Eurocurrency Market Milestones, 1976-82^a

1976
+ Electricité de France (EDF) was the first major borrower to obtain a 1% spread. + Venezuela and Spain each raised \$1 billion jumbos. Both were difficult to syndicate. + Argentina reschedules its \$800 million debt due to be repaid that year, at 1.625% for four years. + Cameroon and Guyana paid the highest spread in the Euromarkets - 2.250%.
1977
+ The United Kingdom Treasury was the first borrower to break the 1% margin barrier. In February, it borrowed \$1500 million at 0.875% for the first two years, rising to 1% for the next five years. + Spreads plunged during the second half of the year, especially for industrialised countries. For example, in July Denmark borrowed \$500 million at 1.125% for the first three years, rising to 1.250% for the same period. In December, it raised \$200 million at 0.875% for the first two years and 1% for the last five years. + The Oil and Natural Gas Commission of India and the National Electricity Board of the States of Malaysia became the first LDC borrowers to obtain a 1% spread. + The 0.875% spread barrier was broken at the year's end: Crédit National raised \$50 million at 0.625% for five years.
1978
+ In March, the City of Paris breaks the next barrier: \$20 million at 0.500% for the first four years, 0.625% for the last year. Soon after, other French public borrowers signed deals with a 0.500% split spread. Later in the year a \$250 million loan to SNCF established a 0.500% spread throughout. + The largest ever deal came to the market: Canada raised \$3 billion at US prime for the first four years, rising to 0.250% for the last four years. + There were several major refinancings: The UK Treasury in August refinanced its \$1500 million 1977 loan at 0.625% throughout for 10 years. In December, Denmark refinanced \$1235 million at 0.750% for seven years. + In December British Gas borrowed \$250 million at 0.500% for 10 years.
1979
+ EDF raised two jumbo loans, both at the finest terms in the market at the time of negotiation. In June, it raised \$1.1 billion at a weighted spread of 0.486% for 12 years. In October, it raised \$1 billion at a spread of 0.4% throughout for 11 years. + As spreads tumbled, maturities lengthened. Both Argentinean and Brazilian borrowers raised 15-year deals. + By the third quarter of the year, many major banks were resisting any further deterioration in margins. The pull-out of the Japanese banks, through Ministry of Finance regulations, helped stop the decline. + China made its appearance in the Euromarkets: it borrowed \$9 billion. It demanded and got a 0.500% margin in all the deals.
1980
+ The upward trend in spreads is particularly marked for Brazil; public sector borrowers in early September had to accept 1.500%. + Three jumbo loans were completed during the year: Belgium signed a \$1200 million loan in April at 0.375% for the first two years; 0.500% for the last five years; Enel, Italy's state electricity entity, signed a \$1 billion refinancing in July at 0.625% for eight years; Venezuela signed a \$1800 million deal in August at 0.625% for the first three years and 0.750% for the last four years. + Terms for French borrowers remain the finest in the market. In August, Crédit National signed a £125 million deal at 0.375% throughout for seven years.
1981
+ High liquidity resulted in a further downward movement in spreads for good quality names. Greece raised a \$400 million with 0.375% for the first five years, 0.500% for the other five; Portugal and Denmark also achieve to borrow with 0.375% portions. + Eagerness to lend in Asia is represented by a \$600 million syndicate for the Korea Exchange Bank at 0.625% for eight years; an eight year \$200 million at 0.875% for the Central Bank of the Philippines, plus other loans to Thailand and Indonesia. + Issues by Pemex, the Mexican oil company, get mixed reception: a \$500 million deal was cut to \$200 million after several weeks in the market; a \$200 million club deal was shelved, while a £200 million sterling acceptance facility was increased to £365 million to accommodate excessive demand.
1982 ^b
+ Latin American spreads increase. At the beginning of the year, Italian pricing seems to be the only reflection of a similar upturn for European borrowers. + In response to market pressure for increased spreads, borrowers adopted several stratagems: prime tranches, increased front-end fees, or even an additional 0.125% on the spread. In the Far East, competitive pressures continue to keep margins low. + The Republic of France negotiates a \$4 billion jumbo with a 0.500% spread throughout ten years, while Snecma, the French state-controlled manufacturer raised \$120 million for eight years, without a government guarantee, paying 0.375% for the first 4 and a half years, rising to 0.500% thereafter.

a. Some of the major deals bankers regarded as decisive in shaping the conditions of the syndicated loan market.

b. Until June.

Source: Euromoney (1980e, 17) for 1976-80; 1981-82 selected from the "market commentaries" of several issues of Euromoney during the period.

In the 1979-81 period the accumulation of external debt by many LDCs, particularly those in Latin America, skyrocketed (see Figure 4.1). While the second oil shock explained the borrowing increases from countries like Brazil and Argentina, it did not with oil exporters like Mexico or Venezuela. But a common feature all borrowers faced was the increase in interest bills, as restrictive monetary policies followed the U.S. lead, with international interest rates reaching record-high levels in 1981-82 (see Table C1). Thus, increased borrowing was apparently understood as its result.⁵³ The spreads widened markedly after the second quarter of 1980 between industrialised countries and those borrowers that had rescheduled their debts recently (see Table 4.12 and Figure 4.8).

Table 4.12. Quarterly Differentials of Spreads on Publicised Euroloans to Industrialised Countries and those that Rescheduled their Debts, 1973-82 (percentage points)

Period	1974	1975	1976	1977	1978	1979	1980	1981	1982
I	0.38	0.32	0.34	0.64	0.95	0.60	0.35	1.46	1.18
II	0.59	0.24	0.67	0.72	0.76	0.40	0.34	1.78	1.28
III	0.11	0.25	0.54	0.72	0.67	0.24	0.58	1.29	-
IV	-0.01	0.21	0.70	0.79	0.47	0.38	0.69	1.04	-
Average	0.27	0.26	0.56	0.72	0.71	0.41	0.49	1.39	1.23

Source: Calculated with data from Table B18.

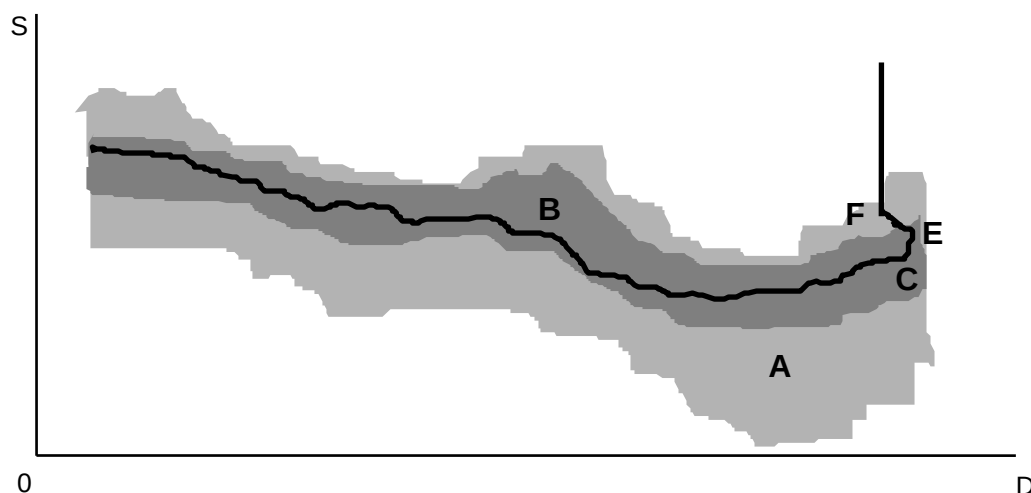
Arguably the reschedulings negotiated in 1979 and 1980, several for unprecedented amounts (see Table 4.2) showed bankers that reschedulings were to be more frequent -and involve bigger amounts- than previously thought. Following the hypothesis of McDonald and Folkerts-Landau already described, the lenders' cold feet was reflected in higher spreads. But in any case the difference was not a big fraction of the total interest rate, even less considering the record highs those rates had reached. The biggest gap registered, 1.78% during the second quarter of 1981, represented 10.4% of the average LIBOR rate (17.07%) during that period (see Table C2). Once more, it is clear that spreads reflected *rescheduling* risk, not *default* risk. It was not until the second quarter of 1982 that lending conditions to LDCs became much stricter, as a result of the Falklands conflict between Argentina and the United Kingdom. And after the Mexican moratorium was announced in August, the market flew for what it perceived as quality, leaving (among others) the whole of the Latin American region in the cold. The complaint by the Venezuelan central bank governor is a good example:

It's an irritating paradox to see that France -under a socialist government that nationalized the banks- took only three days to raise a \$4 billion loan to support the franc, while no one will touch us. What rationality is there to this? (McGirk 1982, 128).

Just a few months later, spreads between banks and many LDCs -particularly from Latin America were not being determined in the Euromarkets (that had closed for them), but around a negotiating table. The evolution of the spread for those LDCs during the 1970s and early 1980s had followed a drift such as that depicted in Figure 4.17.

⁵³ As explained in Chapter 1, higher interest rates may bring along an increase in borrowing by countries, mirrored by increased

Figure 4.17. Spreads Against Debt



Where “D” is the stock of nominal debt acquired by the country and “S” the level of the spread borrowed upon. “A” is the band in which the spreads of all the sovereign borrowers are contained. For example, in Figure 4.9 that band goes from 0.6% to 2.3% (all the sovereigns that borrowed in 1978 were within those boundaries). “B” represents the even narrower spread band within which a specific country moves. At a point such as “C” the country’s lenders start to get cold feet, and spreads start to increase - but within the band- while the country continues to increase its debt stock. After a point such as “E” spreads continue to increase and may even break the band within which the country has moved; some lenders are so apprehensive about the country’s prospects that they refuse to lend more and, on the contrary, cash their loans when due, and the debt stock starts to fall in nominal terms. At “F” all banks refuse to lend at all, with the spread becoming infinite; no matter what spread the country offers to pay, the banks will not acquiesce.

4.4. THE EUROMARKETS' LOCOMOTIVE: SUPPLY OR DEMAND?

With spreads not only moving in concert, but downwards, breaking time and again barriers that had been labelled as unbreakable, with aggressive non-U.S. banks pushing down those spreads to obtain a share of the market, it seems possible to argue that, at least during the late 1970s and early 1980s (virtually until the beginning of the debt crisis) the Euromarkets had the supply of funds as its main locomotive. Naturally, if that was indeed the case, borrowing countries (with outstanding examples in the Latin American region) took full advantage of it.

For the process to be demand-driven, as Devlin (1989, 71) points out, credit would be rationed by the lender after a certain point. For example, a bank having a self-imposed "country-limit" it was not to trespass (and not imposed on it by regulations). The only (anecdotal) evidence in that regard points out that lenders indeed argued they had a country limit. Apparently it was just a strategy in the bargaining process; the case of a bank refusing to lend because its "country limit" had been reached was unheard of.⁵⁴ On the other hand, there are examples where a small increase in the spread did wonders to vanish the alleged restriction,⁵⁵ and also cases where the lending syndicate avoided demands by the country that the spread should be reduced by offering a much bigger amount than that originally requested. A trick that generally did not work with industrialised countries (see for example Euromoney May 1982, 194) but also did wonders with LDCs. All these particulars further support the notion that the indebtedness by LDCs was really supply-driven.

At least during the early 1970s, spreads were coming down and maturities lengthening. The Herstatt and Franklin National collapses scared many banks out of the Euromarkets and reversed the trend, but when they came back competition pushed spreads to record-lows, with some banks even complaining publicly about the slide and trying to stop it. The rumbles of the incoming Mexican crisis reversed that trend. That is, the episodes that motivated a massive retreat from lenders were accompanied by a marked increase in spreads. The anecdotal evidence that can be added to spice the panorama, even discarding the accounts of bankers pestering Finance Ministers with loan offers, or empowering their secretaries to authorise participation in lending syndicates in their absence, certainly provides further evidence of the workings of Say's Law in the capital markets. It is certainly difficult to imagine a Finance Minister or a President rejecting offers that would ease the usual financial constraints routinely encountered, while passing the buck (i.e. a greater debt service) to the next government.⁵⁶

An additional way to probe into the likelihood of supply-driven Euromarkets for LDCs is to compare the proportion of loans that went to borrowers in developing countries in contrast to that received by those in industrialised nations. The rationale behind the exercise would be that, with the developed markets saturated (because of recession or any other reason), and flush with funds from, for example, oil exporters, banks would have no option but to try to push loans into the developing world. That is, LDCs would have then an increasing share of the market. Data from the syndicated loan market certainly points to an important proportional increase in the indebtedness by LDCs with respect to

⁵⁴ Other than those cases where the banks were following rules imposed by their regulatory authorities, as was the case of Japan (Curtin 1982, 113-114)

⁵⁵ For the cases of Algeria and Mexico see Euromoney (1977b, 7-8) and (1982d, 300), respectively.

⁵⁶ The only prominent example of that kind of prudent behaviour in Latin America is Colombia.

industrialised countries (Table 4.13). Considering total borrowing figures (syndicated loans and bond issues) that increase disappears, with developed countries actually increasing their already big share of that total in the 1980-82 period (Figure 4.18). It can be argued, then, that the evidence is mixed, and a conclusion cannot be derived from it. However, in the relevant market for the query, that of syndicated loans, data certainly appears to support the notion that the indebtedness process was supply-driven, as it is not possible to argue that banks would prefer to lend to LDCs over more advanced countries.⁵⁷

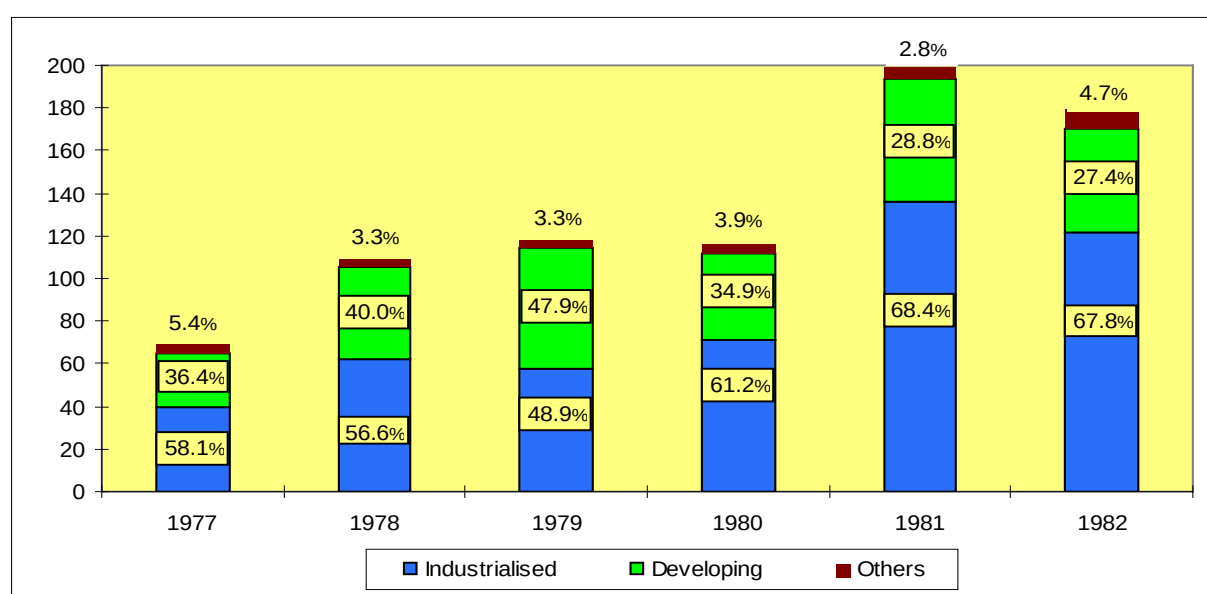
Table 4.13. Borrowing in the Syndicated Loan Market by Type of Borrower, 1972-82

Year	Borrowing in Million Dollars			Percentage of Total Borrowing	
	Industrialised	LDCs	Total	Industrialised	LDCs
1972	4747.8	4054.8	8802.6	53.9	46.1
1973	12344.8	8481.5	20826.3	59.3	40.7
1974	18321.9	10200.0	28521.9	64.2	35.8
1975	5958.7	14648.5	20607.2	28.6	71.4
1976	10488.9	18253.5	28742.4	36.2	63.8
1977	13415.7	20782.2	34197.9	38.8	61.2
1978	35681.9	37972.7	73654.6	48.4	51.6
1979	26006.9	53060.8	79067.7	32.9	67.1
1980	39584.4	38558.7	78143.1	50.7	49.3
1981	48429.3	46178.5	94607.8	51.2	48.8
1982	55604.7	42574.3	98179.0	56.6	43.4

a. OECD countries in 1995, plus organisations such as the ECSC, plus international development institutions such as the World Bank and regional development banks (the borrowing by them was minimal until 1982), and excluding Turkey and Mexico, that were included among the LDCs.

Source: Constructed with data from OECD (1996, 237, 240, 242, 244, 247, and 250).

Figure 4.18. Funds Raised on the International Capital Markets, 1977-82
(by type of borrower, billion dollars and percentages)



a. Includes bond issues and syndicated loans.

b. Same definitions as in Table 4.14.

Source: Elaborated with data from Table C6.

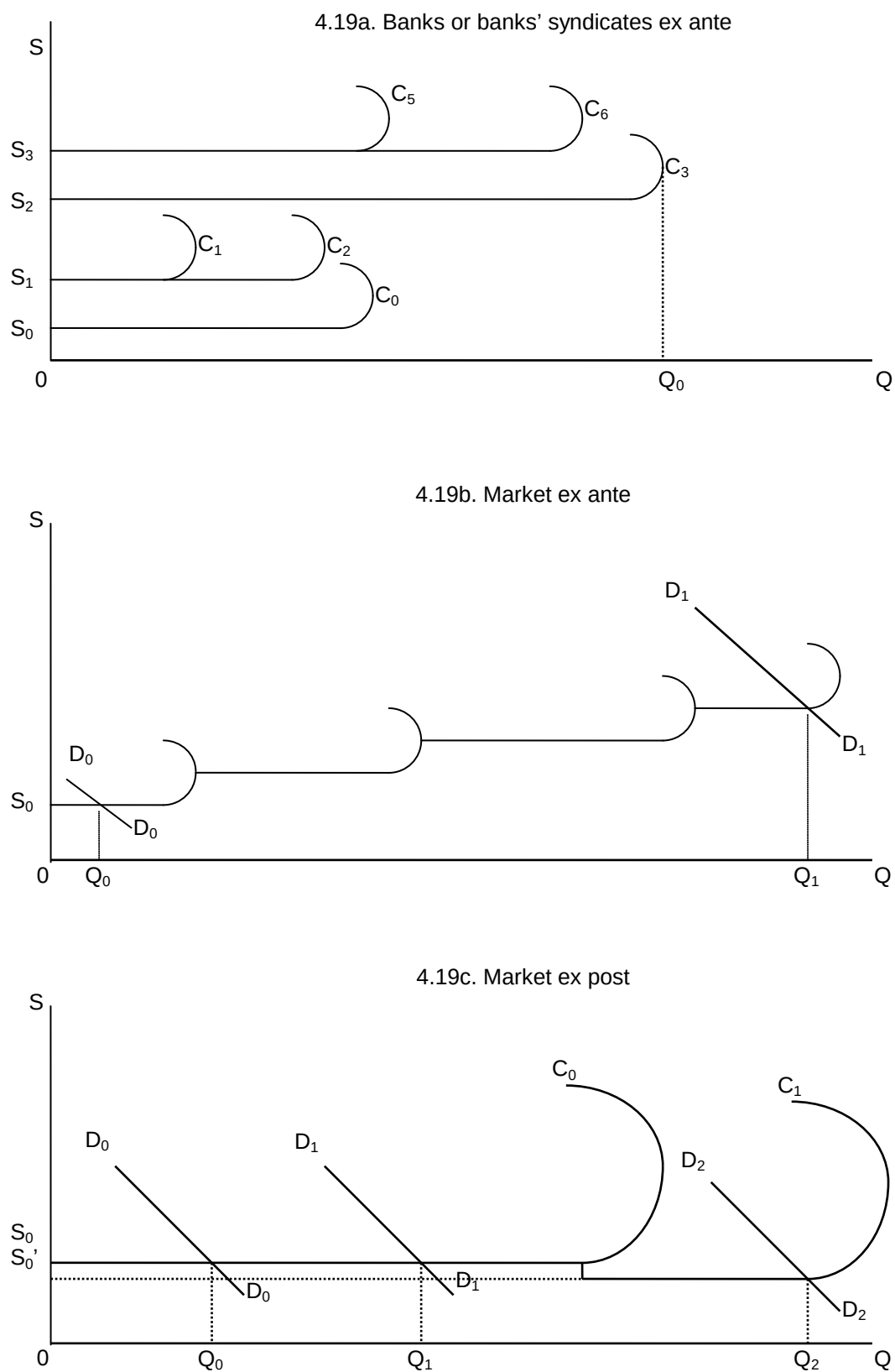
⁵⁷ While market observers such as Euromoney (1977b, 7-8) may have declared themselves perplexed that the United Kingdom got much better credit terms than Venezuela, there is no example of bankers suffering from a similar confusion.

If it was the case that the indebtedness process through the Euromarkets was supply-driven, how was the formation of such a credit market in the case of a particular country? Drawing heavily on Devlin (1989, 103-106), there is a first stage where a country has no defined price or spread yet conferred by the markets. That may be the case because that country is virtually a virgin borrower in the capital markets, or one that has recently emerged from a (liquidity or structural) debt crisis and has regained the markets' confidence. In that stage, Figure 4.19a, several banks -or, rather, different potential syndicates of banks- have determined ex-ante the spreads and amounts they would be willing to lend. Figure 4.19a presents the position on both items of six syndicates. In a fragmented market, and in the (improbable) case the country had perfect information on the positions of the six groups, it would either borrow as low as an interest rate topped by the spread S_0 (with the C_0 syndicate) or borrow as much as Q_0 , in agreement with the C_3 syndicate. And, of course, it could considerably expand its borrowing by calling on all the syndicates, and paying a maximum price of S_3 .⁵⁸ Reaching loan agreements with all the six syndicates would be possible for the country if those groups are not fully aware of the credit policy determined by the other parties, or of lending externalities (a perfectly plausible assumption considering the inadequate information that prevailed in the markets, described in section 4.2). The ex ante market supply curve of credit, Figure 4.19b, will be the sum of the individual curves and form a step function that would be relatively flat. That ex ante market supply curve could be the ex post market supply if all syndicates stuck to their original lending decisions. This could be the outcome if the craving of the country for loans was so great that it presented a demand curve such as D_1 - D_1 . However, if the available supply is greater than the borrower's demand, for example with that country having a demand curve like D_0 - D_0 , then all those syndicates that decided to lend with a spread above S_0 would be left with their funds untouched. Thus, those banks would have to lower the spread to which they would be willing to lend to the level of S_0 . As the spread was one of the elements that was quite public, syndicates knew in what direction the wind was blowing, and what to do if they wanted to stay in the lending game. If the syndicates decided to compete and match the price originally offered by C_0 , the sovereign borrower would face a flat supply curve, such as the one depicted in Figure 4.19c.

Looking at what happened to spreads once the markets had left behind the trauma of the Herstatt collapse, that flat supply curve of credit looks more than plausible. And with the fierce competition that took place in the Euromarkets it can also be argued that the supply curve was constantly nourished by the entrance of new banks or syndicates that wanted to enter the markets, knowing that S_0 was the price to offer. And, if wanting to gain market share by undercutting the established lenders, those new entrants could even offer the country not only the opportunity to increase its borrowing to Q_2 , but to do so at a lower spread, S_0' . In that case, borrowing is supply-driven. Interestingly enough, in movements such as D_0 to D_1 along the original supply curve of credit it can also be claimed that the process was demand-driven. As Devlin (1989, 71-73) points out, if interpreted strictly, a demand-driven argument would have to imply that the supply schedule is horizontal over a significant area; this is the only way loan volume could unambiguously attributed to demand drives. It is when the supply curve shifts downwards (thus having a negative slope) that the spread falls, the amount borrowed increases, and the demand-driven argument losses force.

⁵⁸ Knowing how close are spreads even among countries in radically different stages of development, it can be ascertained that the difference between S_0 and S_3 would be as small as 250 basis points.

Figure 4.19. Formation and Evolution of the Credit Market around a Borrower

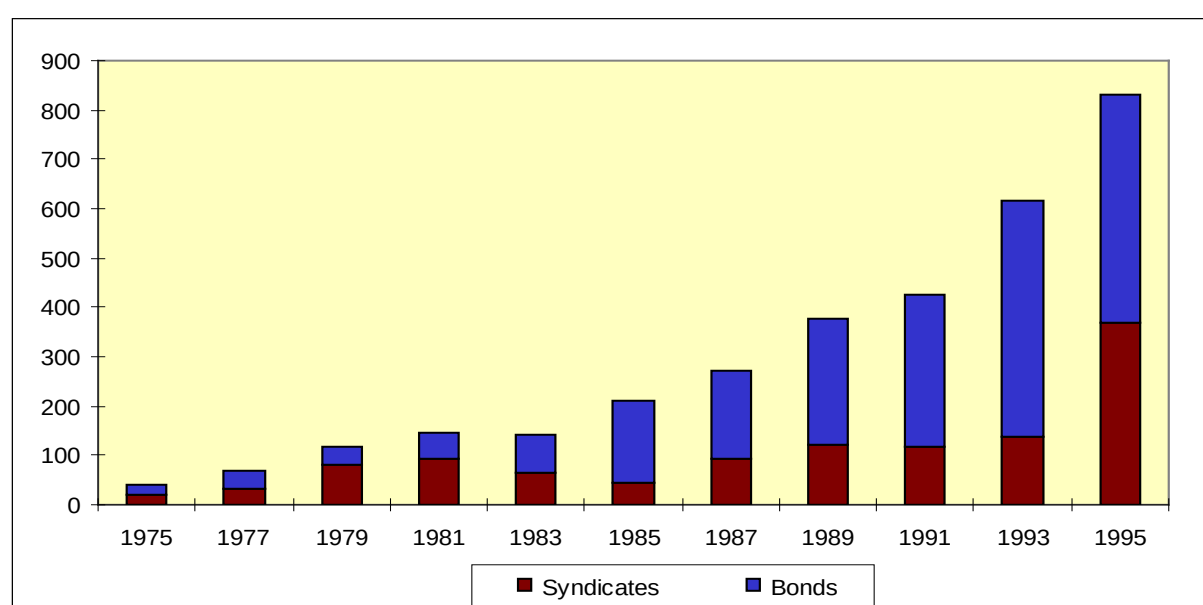


Source: Based on Devlin (1989, 73 and 105-106).

4.5. A NEW SOURCE OF SOVEREIGN FINANCING IN THE 1990s: THE INTERNATIONAL BOND MARKETS

The international debt crisis that Mexico sparked in August 1982 marked an, at least temporary, dead knell for the boom experienced by the syndicated loan market. While syndicated lending continued, borrowing through Eurobond issues dominated the Euromarkets during the 1980s and first half of the 1990s. Even when syndicates showed a remarkable growth in 1995, they still represented only 35.5 percent of Euro-borrowing (Figure 4.20). Somewhat ironically, Eurobonds recuperated the dominance they enjoyed up until the 1960s.

Figure 4.20. Borrowing through Syndicates and Bonds in the International Capital Markets^a, 1975-95
(billion dollars)



a. Includes credits to sovereign and private borrowers.
Source: Elaborated with data from Table C7.

When several countries emerged from the 1980s debt crisis, bonds were much preferred by lenders than syndicated loans. Bonds were perceived as senior debt, as HICs never rescheduled them.⁵⁹ This perception was clearly reflected in the noticeable difference between the yields implied by the prices of commercial bank debt on the secondary market and those of bonds (Table 4.14). On the other hand, commercial banks were reluctant to lend again through syndicates, because of their recent experience, and also because several agreements reached under the Brady Plan had the option of “new” loans for the respective country.⁶⁰ Those agreements, on the other hand, convinced bond buyers that those countries did not face anymore an excessive debt burden.

⁵⁹ The full servicing of bonds was naturally helped by the fact that the outstanding amount of bond's debt was much smaller than that of syndicates. During the 1976-82 period, publicised bond issues by LDCs totalled only \$27 billion, compared with \$225 billion in medium- and long-term publicised bank credit commitments (IMF 1991e, 20). When negotiations begun in 1982 to reschedule the Mexican external debt (the country that spearheaded the process for all the other HICs), there was a prolonged debate if bonds should be included in the rescheduling exercise or not. Precisely because their amount was not considerable, they were excluded (Kraft 1984, 43-44).

⁶⁰ In those cases the “Brady menu” offered to the banks included three main options: debt reduction, debt-service reduction and/or additional credits. Countries such as The Philippines, Mexico, Venezuela, Uruguay, and Brazil included that option in their Brady deals (IMF 1993e, 2).

Table 4.14. Secondary Market Yields on Bank Debt and Bonds, 1989-91
(percentage points)

Period	Argentina		Brazil		Mexico		Venezuela	
	Bank	Bonex ^a	Bank	Bonds ^b	Bank	Pemex ^c	Bank	FRNs ^d
07.89	48.0	27.0	27.2	25.0	20.4	13.8	22.2	19.0
08.89	62.2	30.0	29.7	22.6	22.2	13.0	24.3	18.3
09.89	50.6	27.5	33.7	22.9	23.1	14.5	23.3	18.2
10.89	55.9	18.0	36.9	20.7	24.5	13.7	23.1	18.1
11.89	69.1	16.0	41.6	20.7	25.6	12.9	25.6	17.5
12.89	67.2	20.0	40.2	21.5	25.3	13.0	26.5	17.1
01.90	77.7	24.0	34.4	21.2	23.2	12.4	27.0	17.1
02.90	91.4	33.0	31.7	21.2	20.9	12.4	26.9	16.7
03.90	86.5	40.5	41.0	22.0	21.2	12.6	24.6	16.4
04.90	81.3	42.7	39.1	21.5	19.8	12.8	24.2	15.1
05.90	63.9	33.5	37.1	19.2	18.2	12.8	21.7	14.9
06.90	67.1	32.2	39.7	19.8	17.9	12.8	21.3	14.5
07.90	66.6	27.6	40.3	19.3	18.5	12.6	20.6	14.2
08.90	67.8	21.1	52.1	20.6	20.3	12.4	21.7	14.1
09.90	73.7	22.5	45.5	20.6	19.7	12.3	22.0	14.0
10.90	70.4	24.5	42.7	19.7	19.3	12.2	20.1	14.1
11.90	61.1	26.1	35.9	19.3	19.2	12.3	18.8	13.4
12.90	45.8	24.9	38.1	17.9	17.8	12.1	16.8	12.8
01.91	49.5	25.1	43.2	17.7	19.6	12.0	17.3	12.3
02.91	48.9	26.5	38.0	17.0	16.6	11.8	15.3	11.6
03.91	53.1	25.8	34.9	16.1	15.7	11.8	15.0	11.2
04.91	44.5	19.6	32.8	15.3	14.0	11.6	13.8	10.8
05.91	37.3	17.3	32.2	15.2	14.5	11.3	14.4	10.5
06.91	40.0	16.7	30.0	16.2	14.8	10.4	13.9	10.5
07.91	33.7	17.9	27.6	14.8	13.5	10.1	12.7	10.5

a. Argentinian Treasury bond denominated in U.S. dollars.

b. Brazilian New Money Bonds.

c. Bonds issued by Pemex (Mexican public oil company).

d. Venezuelan Floating-Rate Notes.

Source: IMF (1991e, 23).

The preference for bonds was also influenced by regulatory factors, including risk weights under the Basle Accord⁶¹ and regulatory provisioning requirements that demanded from banks, for example, to establish loan-loss provisions against exposure to LDCs with recent debt-servicing difficulties. Another important element was a fall in certain transaction costs for accessing international bond markets as a result of regulatory changes. During 1990 the U.S. Securities and Exchange Commission (SEC) promulgated the "Regulation S" and the "Rule 144A". The former facilitated the marketing of Euro-securities in the United States by clarifying registration requirements; the later relaxes the waiting period requirement for secondary market trading in privately placed securities. Moreover, the minimum rating requirements for foreign bond issues in the Swiss market were abolished in January 1991 (previously a floor credit rating of triple-B applied). The Japanese authorities eased the credit rating standards for public placement of Bonds in the "Samurai" market in June 1991. These minimum standards were lowered from single-A to triple-B for bonds issued directly or guaranteed by governments (for the classifications by the main credit rating agencies see Tables 4.14 and 4.17). The

⁶¹ Under the Basle Accord, loans to LDCs that are not OECD members or lenders under the General Arrangements to Borrow (GAB) carry a 100 percent risk factor in the determination of the capital-asset ratio; other sovereign loans carry a zero risk factor. A summary of the background and main provisions of the Accord is in IMF (1992d, 12).

decision by the Spanish authorities to allow Mexico to issue bonds on the “Matador” market led to the first issue of non-investment grade paper in that market. Flexibility in the Canadian regulatory system allowed Mexico and Chile to be removed from the group of countries against which loan provisions should be made, because of their demonstrated ability to raise funds on a voluntary, unsecured basis.⁶²

Besides, the largest developed markets for LDCs bonds are those in the U.S. and, to a lesser extent, Germany, and both had particular incentives for LDCs to issue bonds there. On one hand, the U.S. has a well-established tradition of placement of non-investment grade securities, supported by the widespread availability of credit assessments by reputed agencies. U.S. investors -pension funds in particular- rely heavily on such ratings (Table 4.15). Germany, on the other hand, has widespread retail networks of universal banks that investors perceived as also providing *de facto* credit ratings for certain investment instruments. That is because of the legal responsibilities linked to bond prospectuses, and this perception has been reinforced by the relative infrequency of foreign bond defaults. Additionally, while the U.S. is a natural market for borrowers from Latin America, so it is Germany for those from Eastern Europe (IMF 1992d, 41-46).

Table 4.15. Credit Classifications by the Main Rating Agencies

Standard & Poor's ^a	Moody's ^b	Interpretation
Investment Grade		
AAA	Aaa	The debtor's payment capacity is extremely strong.
AA	Aa	The debtor's payment capacity is strong. The difference with the above classification is minimal.
A	A	Strong payment capacity, but more vulnerable than the above classification to external circumstances.
BBB	Baa	Adequate payment capacity, but unfavourable circumstances may weaken it.
Non-Investment or Speculative Grade		
BB	Ba	Debt vulnerable to circumstances, that may annul the payment of interests and/or capital.
B	B	Higher vulnerability than the above classification, but at present with capacity to pay interests and capital.
Default Grade		
CCC	Caa	Absolutely dependant on favourable circumstances to fulfil payments on schedule.
CC	Ca	Highly speculative investment.
C	C	Extremely poor prospect for any investment.
	D	Debt in virtual default. Payment not expected.

a. In addition, the classifications from “AA” to “CCC” are often attached the (+) or (-) symbols to differentiate borrowers within a given grade

b. In addition, numbers from 1 (highest) to 3 are often attached to differentiate borrowers within a given grade.

Source: IMF (1992e, 33); Gurría (1993, 240-241).

Moreover, bonds provided borrowers with access to a broader range of investors, such as insurance companies, investment funds and retail investors. While information on the actual investor pool tapped by the bond issues of recent sovereign re-entrants is largely anecdotal, some indications may be gleaned from denomination sizes. Latin American Euro-CDs typically have denominations on the order of \$100,000 and registered bonds of around \$250,000, reflecting the fact that they are largely

⁶² See IMF (1991e, 21) for the changes in the U.S. and Spain; (1992e, 36-46), for Japan, Canada, and Switzerland.

placed with institutional investors. Other bearer securities issued by Latin American borrowers have had denominations in the range of \$10,000 to \$50,000 or even less, indicating the targeting of retail investors. The deutschemark placements by Mexican borrowers in Germany have included denominations as small as DM1000 (IMF 1991e, 20).

4.5.1. IMMERSION AND MARKET CONDITIONS IN THE EUROBOND MARKETS FOR LDCs

As it has been analysed, apparently sovereigns paid a price to enter the Euromarkets, with (relatively) high spreads in their initial loans, that went down as the country gained recognition in those markets, and its the perceived risk diminished (see Figure 4.6). Many HICs ejected from those markets after the 1982 debt crisis staged a comeback, through the bond markets, in the late 1980s and early 1990s (see Tables D18, D19 and D20). 10 out of the 17 so-called Baker HICs returned to the capital markets in 1988-94 (see Table D21). In all cases, initial yields were higher, and even markedly above (as in the cases of Mexico and Argentina), than those that would follow (Table 4.16). As in the syndicated loan market, attractive yields was a price paid to compensate for the privilege of entering (or, rather, re-entering) the markets.

Table 4.16. Yield Spread^a at Launch for Unenhanced Bond Issues by the Baker-17^b HICs^c, 1988-95 (basis points)

	1988	1989	1990	1991	1992	1993	1994	1995
Argentina	- ^d	-	730	375	324	301	250	-
Brazil	-	-	-	625	467	487	-	-
Chile	-	-	-	210	150	-	138	-
Colombia	-	-	-	-	-	215	153	-
Costa Rica	-	-	-	-	-	-	395	-
Mexico	-	820	366	285	217	180	138	-
Philippines	-	-	-	-	-	320	167	305
Uruguay	-	-	-	-	275	228	158	-
Venezuela	350	185	260	235	264	386	-	-

Note: The yield spread of the bond with which the country re-entered the markets is presented in the respective year, and the average for all the bonds issued in the following years. For example, Brazil re-entered the markets in July 1991 with a bond issued by Petrobras, with an initial yield spread of 625 basis points. The average yield spread during 1991 was 524 basis points (still above the 1992-93 averages).

a. Only U.S. dollar issues. Yield spread measured as the difference between the bond yield at issue and the prevailing yield for U.S. government bonds of comparable maturity.

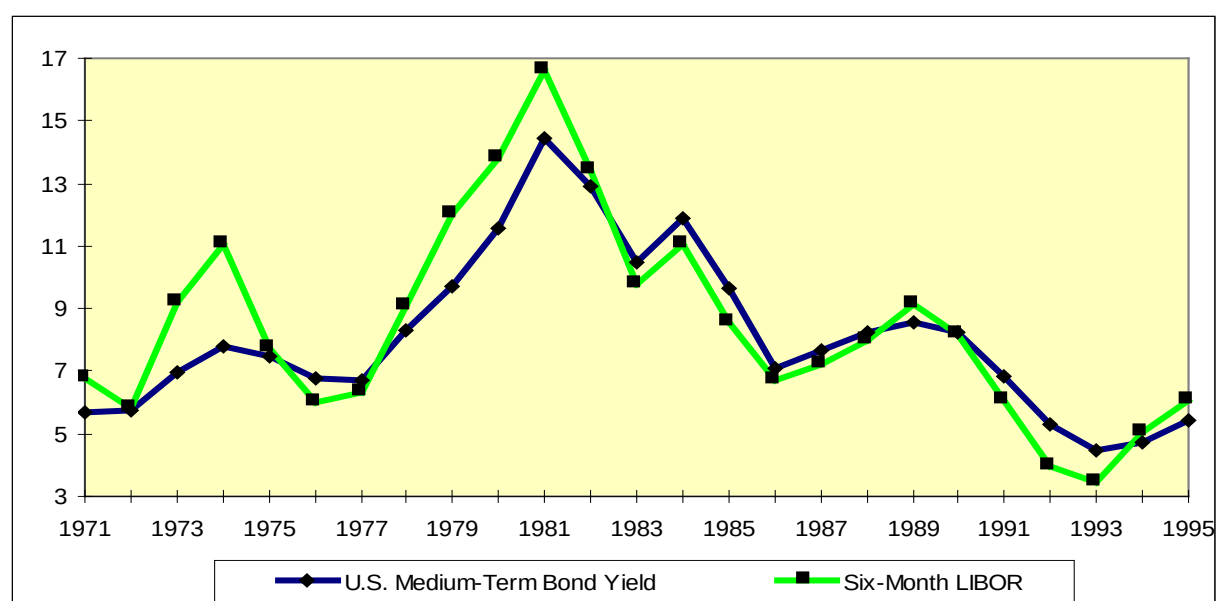
b. The Baker-17 group of HICs was composed by Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ivory Coast, Ecuador, Jamaica, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela, Yugoslavia. The countries not included did not issue any unenhanced bonds during the period.

c. When bonds were issued during the same period by the central government and other public sector borrower such as a public enterprise, the data on the central government's bond is included.

d. No borrowing during the period.

Source: Constructed with data from IMF(e), several years.

A bond with a similar maturity and payable in the same currency is the usual yardstick to apply against a bond issued by an LDC. Thus, the U.S. medium-term bonds' yield is the most common yardstick, and plays a similar role to that of LIBOR in the syndicated market. Since the mid-1970s the trends that both have followed have been analogous, while since the early 1980s their levels have been very similar (Figure 4.21). But if LIBOR and the U.S. bonds yield present comparable figures, on the other hand there is tremendous difference in the spread that LDCs cover above them when borrowing in the syndicated markets of the 1970s and the bond markets of the 1990s, respectively (Table 4.17).

Figure 4.21. Average Yield on U.S. Government Bonds and LIBOR, 1971-95
(percentage points)

Source: Table C1 for LIBOR; IMF (1996a) for the U.S. bond yields.

Table 4.17. Differentials Between Interest Rates paid by Sovereign Borrowers in 1979 and 1993 with respect to those paid by New Zealand and the U.S., respectively (percentages)

Country	1979		Country	1993	
	Interest Rate ^a	Differential ^b		Yield ^c	Differential ^d
Venezuela	12.30	2.39	Chile ^e	5.90	34.1
Mexico	12.39	3.04	Mexico	6.20	40.9
Argentina	12.40	3.11	Colombia	6.55	48.9
Colombia	12.47	3.70	Argentina	7.41	68.4
Chile	12.50	3.95	Venezuela	8.26	87.7
Brazil	12.53	4.16	Brazil	9.27	110.7

a. Average spread paid by the respective country that year, plus the 1979 average LIBOR interest rate: 11.63%. spread paid by the respective country that year, plus the 1979 average LIBOR interest rate: 11.63%

b. Percentage difference with respect to the average 12.009% rate paid by New Zealand.

c. Average yield above a similar bond from an industrialised country plus the 4.4% yield paid by U.S. bonds.

d. Percentage difference with respect to the average 4.4% yield offered by the medium-term U.S. government bond.

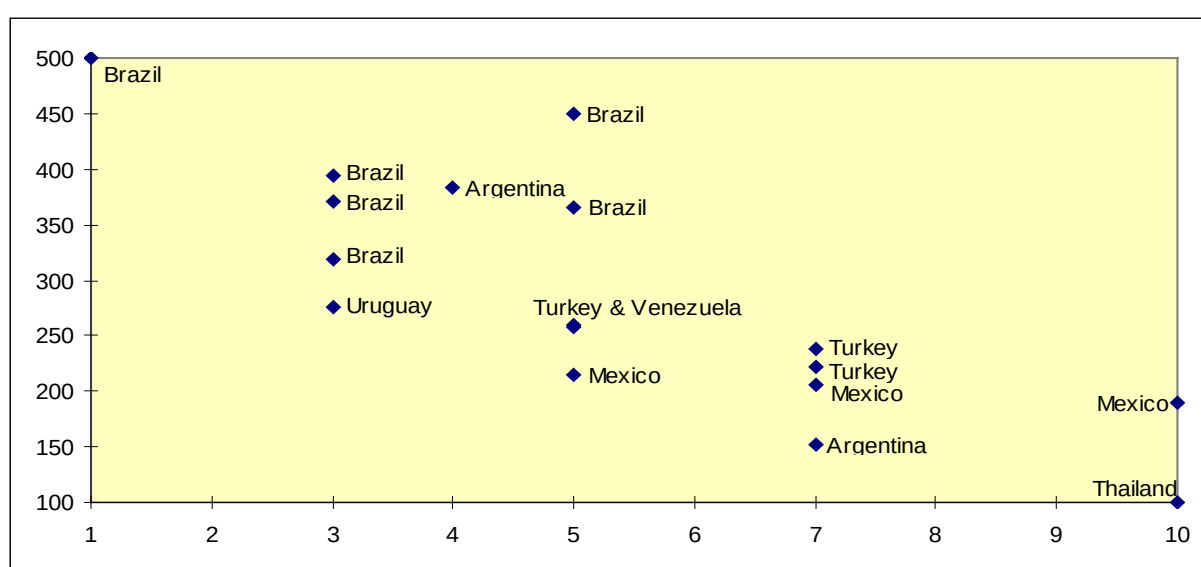
e. 1992 yield used, as no borrowing by Chile took place in 1993.

Source: Table 4.5 for 1979; 1993 calculated with data from Table 4.16.

The initial yield *spread* offered by the first Mexican bond issued after the debt crisis, in June 1989, was 8.20%. As the average yield of the U.S. medium-term bond during the year was 8.24%, that bond literally doubled it. The equivalent a decade earlier, in 1979, would have been a country offering a spread above LIBOR (that during the year averaged 12.009 percent) of 11.9%. Most probably the markets would have rejected that proposal outright, considering that country (Madagascar paid an average spread of 2.037%) as too risky (see Figure 4.6). Even when countries lowered their bond yields after re-entering the markets, the difference with their respective benchmark was still much greater than that observed with syndicated loans (Table 4.17).

It is difficult to conceive that the countries that occupied the creditworthiness top-notch of Latin America would pay so dissimilar differentials (Venezuela 2.4 percent in 1979 and Chile 34.1 percent in 1993) with respect to the country considered to represent the best credit. Such wide differences are basically explained because, as the spread above the respective benchmark offered by a bond reflects the *default* risk; the spread above LIBOR of a syndicated loan reflected the *rescheduling* risk. This is a natural consequence of the fact that attempting to negotiate the rescheduling of a bond with even thousands of holders would be nearly impossible; while creating a committee that represented the interests of creditor banks was relatively easy. The relationship between bonds' yields and maturities apparently confirms that the maturity of the bond also reflected the perceived risk of the borrower. Looking at all the bonds issued by LDCs during the first-half of 1992 (Figure 4.22) it is clear that, contrary to what happened with syndicated loans before 1982, that relationship follows a drift such as the one depicted in Figure 4.14.

Figure 4.22. Yield Spreads and Maturity of International Bond Issues by LDCs^a during the First-Half of 1992^b (basis points and years)



a. Some countries -notably Brazil- appear on several occasions because of bonds issued by different, or the same, public borrower during the six-month period. See Table D21 for details.

b. A period when bond borrowing by LDCs was in full swing and far from offering the sky-high yields typical of the re-entry period to the markets.

Source: Elaborated with data from Table D21.

Another difference between the syndicated and bond markets also helps to explain that gap: the categorisation of LDCs by credit agencies (Table 4.18). While the “Euromoney Country League Table” of the late 1970s and early 1980s summarised the conditions (spread and maturity) managed by borrowers in the *past*, credit agencies gauge *future* payment capability. In the Euromoney Table any change in perceived creditworthiness was relative to that of other countries; credit ratings provide a specific verdict, independent of other borrowers (see Table 4.15). That the “sovereign quality” of LDCs (summarised in the “can’t go bankrupt” maxim) is not considered as something that makes them superior to, for example, prime firms or corporations is clear in the fact that several did not even manage an investment grade. The coveted “AAA” rating of S&P’s was obtained only by one country

classified as LDC: Singapore (and that until February 1995, and it did not manage the same feat with the equivalent top rating of Moody's).

Table 4.18. Credit Ratings of Selected Developing Country Borrowers, 1991-95^a

	Moody's					Standard & Poor's ^b			
	1991	1992	1993	1994	1995	1992	1993	1994	1995
Argentina	B3	B1	B1	B1	B1	-	BB-	BB-	BB-
Brady Bonds ^d	- ^c	-	B2	B2	B2	-	-	BB-	BB-
Barbados	-	-	-	Ba2	Ba2	-	-	-	-
Brazil	B2	B2	B2	B1	B1	-	-	B	B
Chile	-	-	Baa3	Baa2	Baa1	BBB	BBB	BBB+	BBB+
China	Baa1	Baa1	Baa1	A3	A3	BBB	BBB	BBB	BBB
Colombia	-	-	Ba1	Ba1	Ba1	-	BBB-	BBB-	BBB-
Czech Republic ^e	-	Ba1	Baa3	Baa2	Baa2	-	-	-	BBB+
Hong Kong	-	A3	A3	A3	A3	A	A	A	A
Hungary	Ba1	Ba1	Ba1	Ba1	Ba1	BB+	BB+	BB+	BB+
India	Ba2	Ba2	Ba2	Baa3	Baa3	BB+	BB+	BB+	BB+
Indonesia	-	-	-	-	Baa3	BBB-	BBB-	BBB-	BBB
Israel	-	-	-	-	Baa1	-	BBB+	BBB+	BBB+
Korea	A1	A1	A1	A1	A1	A+	A+	A+	AA
Malaysia	A3	A3	A2	A2	A1	A	A	A+	A+
Mexico	Ba2	Ba2	Ba2	Ba2	Ba2	BB+	BB+	BB+	BB
Brady Bonds ^d	Ba3	Ba3	Ba3	Ba3	Ba3	BB+	BB+	BB+	BB
Pakistan	-	-	-	Ba3	Ba3	-	-	B+	B+
Philippines	-	-	Ba3	Ba2	Ba2	-	BB-	BB-	BB
Poland	-	-	-	-	Baa3	-	-	-	BB
Singapore	-	-	Aa3	Aa2	Aa2	-	AA+	AA+	AAA
Slovak Republic ^e	-	Ba1	-	-	Baa3	-	-	BB-	BB+
South Africa	-	-	-	Baa3	Baa3	-	-	BB	BB
Taiwan	-	-	-	Aa3	Aa3	-	AA+	AA+	AA+
Thailand	A2	A2	A2	A2	A2	A-	A-	A	A
Trinidad & Tobago	-	-	Ba2	Ba2	Ba2	-	-	-	-
Tunisia	-	-	-	-	Baa3	-	-	-	-
Turkey	-	Baa3	Baa3	Baa3	Ba3	BBB	BBB	B+	B+
Uruguay	-	-	Ba1	Ba1	Ba1	-	-	BB+	BB+
Venezuela	Ba1	Ba1	Ba1	Ba2	Ba2	BB	BB	BB-	B+
Brady Bonds ^d	Ba2	Ba2	Ba2	Ba3	Ba3	-	-	-	-

a. Rating at the end of the year. For the specific meaning of each of the ratings see Table 4.18. Rating at the end of the year. For the specific meaning of each of the ratings see Table 4.18.

b. Standard & Poor's presented "sovereign ceiling ratings" since 1992.

c. Not rated at the time.

d. Par and discount bonds that were issued as result of debt negotiations under the Brady Plan.

e. Same rating by Moody's in 1992 as in that time both countries were united in the Czech and Slovak Republic.

Source: Constructed with data from IMF(e), several issues.

An explanation for this inverse relationship would be that, in the case of bonds, there is no such "gentleman's agreement" as the one that prevailed between sovereign and the leaders of a banks' syndicate, whereby both parties knew that a relatively short-term credit would be easily rolled-over when due (Gurría 1988, 76) -an impossible task with bonds. Moreover, each owner of a segment of the bond (regardless of its value) -and the issuer of the bond- had the power to cut short, or extend, the tenor of the security, through the so-called "call" and "put" options.⁶³

⁶³ Options that allowed one or both parties to close or extend the issue at a certain time at an agreed price.

4.6. CONCLUSIONS

Not considering the seven-year minimum interregnum (from 1982 to 1989), many LDCs, particularly the most important ones, have experienced more than two decades of an intense fraternisation with the international capital markets. At the beginning, during the 1960s and early 1970s, this was mainly through the international bond markets, with syndicated loans in vogue during a decade until the early 1980s. When many countries were accepted again into the markets, bonds were again the favoured medium to borrow. Several conclusions can be drawn on the lending patterns shown by both Euromarkets.

4.6.1. THE EUROCURRENCY MARKETS AND SOVEREIGN INDEBTEDNESS

The birth of the Eurocurrency markets is explained by the policies that national authorities - particularly those in the United Kingdom and the United States- took to discourage the international activities of their domestic banks in domestic currency by various forms of voluntary or mandatory restrictions. The activities of Soviet-controlled banks apparently had nothing to do with the creation of the market as such, and merely participated in its activities after it had been established.

Against the widespread belief that the Euromarkets “exploded” as a result of the 1973-74 oil shock and the recycling process that ensued, evidence points to exactly the opposite direction. Those markets had been growing at a tremendous pace since the mid-1960s, and the growth observed in 1973 is not explicated by the oil shock, that started until the last quarter of that year. During 1974-75 there is a marked contraction in its activities and expansion, as a result of the collapse of the Herstatt (Germany) and Franklin National (U.S.) banks. The first two years of the recycling process arguably helped to avoid a greater contraction of the markets, but did not cause an explosive growth, neither of the amounts in it deposited, nor in the amount borrowed through them.

4.6.2. REASONS FOR THE IMPRUDENT CONDUCT BY THE BANKS

Contrary to conventional wisdom, that considers that the behaviour of commercial banks in the 1973-82 decade (and particularly in 1980-81) is inexplicable or even verged in the irrational, many reasons -detailed in section 4.2- explain that conduct, as they lowered the perceived risks and the costs of international lending. Table 4.19 presents a selection of such motives, that show why -at the time- lending in such amounts to so many LDCs was cheaper and seemed much safer than what it would eventually turn out. The development of the lending syndicate as a vehicle to assemble banks and pool their resources crystallises several of those reasons, and was essential for these to happen.

4.6.3. PERCEIVED CREDITWORTHINESS AND LENDING CONDITIONS

Spreads above LIBOR (or any other variable rate) were considered *the* key price that reflected the risk perception of lenders on the specific borrower. At first sight, it seems impossible to couple that assumption with the incredibly narrow scope where the spreads negotiated by all sovereign borrowers were contained, as the spreads' band was no wider than 1.5 or two percentage points.

Table 4.19. Selected Reasons that Reduced Commercial Banks' Perceived Risks and Costs on Sovereign Lending

Perceived Risks Reduction	
Banks' Beliefs or Occurrence	Expected Result
While banks lent to credit-worthy countries, it was the task of organisations such as the IMF to intervene and help it recuperate that stature if a country hit financial trouble.	Industrialised countries and/or multilateral financial organisations would go to the rescue of the banks in case of trouble.
and/or	
Banks were too important to be let down in case of problems with sovereign (as in other kind of important) loans.	
Before the mid-1960s, international borrowing by sovereigns had been through the bond markets, not commercial banks.	Potential losses in the area of sovereign lending are very small.
Until the late 1970s, few countries had problems. The amounts involved were small.	In extreme, a country would need to reschedule and/or refinance its debts for a short period of time.
"Countries can't go bankrupt".	Sovereigns will always be around to honour their debts, and (sooner or later) will have to settle them.
Borrowing countries will self-regulate, following prudent economic policies, to ensure the approval of, and access to, the markets.	No problems with sovereign loans.
The creation of the banks' lending syndicate, and the inclusion of certain clauses in the loan contracts.	All lenders (particularly the small- and medium-sized) are protected, and their negotiating power increased, as a problem with one bank would mean a problem with all.
During the 1970s international interest rates were low, and the relative prices of many commodities exported by LDCs high.	LDCs would have no problem to finance debt service.
Cost Reduction	
Occurrence	Effect
The creation of the banks' lending syndicates.	No need to develop an international base to have an international portfolio.
	and
	Medium- and small-sized banks were able to merely jump into a syndicate, without further ado, assuming that its leader(s) had gauged the borrower's risk.
Lending at floating interest rates –particularly LIBOR- becomes the norm.	Inflation vanished as a potential threat that reduced revenues from interest payments.

Looking at the spreads on their own, it could be argued that a developing nation borrowed with an overlay above LIBOR that was even four or five times the one obtained by an industrialised country,

clearly showing the risk differential. That perspective fully justified looking at an increase of 0.125% as an important change (i.e. deterioration) in the perception of the borrower's creditworthiness. However, that belief is faulty. What should be looked at is not the spread, but the complete interest rate (that is, the variable rate such as LIBOR topped by that spread), as it is the price that the country is periodically paying for a loan. When comparing the interest rates, the difference between countries plummets. At least two reasons explain this. One was that fees were also an important (but many times not public) part of the price that the country paid for the loan; fees that increased (and for the leaders of the lending syndicate that increase was sometimes substantial) the yield of the loan. As widespread information on fees was not available, they were not taken into consideration.

Arguably even more important is the rationale presented McDonald (1982, 630) and Folkerts-Landau (1985, 317-318, 332): the spread did reflect risk, but not the risk of default, but that of rescheduling. Based on their beliefs and limited experience (see Tables 4.2 and 4.18), bankers thought that, *in extremis*, the worst scenario they would face was one of a country that needed to reschedule its debts, but eventually honouring them in full. And the losses expected from such exercises were virtually zero as no debt or debt-service reductions were involved. Under that view, some countries would always cover their debt service punctually; others may need to reschedule, but *all* would sooner or later cover their debts. While historical precedents on sovereign lending did not encourage that conclusion, many factors pushed lenders to conclude that the 1980s would be different from, for example, the 1930s. Thus, that was the risk was reflected in the spread. As a consequence of this small real impact of risk perception on the interest rate, that difference of, for example, 0.125% (or more) made a ludicrous difference in the amount of interest the borrower had to pay.

Therefore, spreads were far from being the "market signal" described by many analysts; that is, a reflection of the markets' perceptions on a specific borrower, that provided its respective government with the necessary hints for it to pursue the self-disciplined conduct required to keep the access open to the capital markets. Under that perspective, the price (spread) that a country was to pay for a loan was tailored to suit the specific characteristics of that borrower. But as interest rates (spreads) were far from playing that textbook role, it is not surprising that so many countries went astray and fell into debt crises. That is not to say that a borrower should have not known, on its own, that it was following a disastrous path, with wrong economic (and indebtedness) policies. Many countries were also prudent, and avoided any problems. However, a prudent economic policy had much more to do with it than the level of interest rates on its loans. Following the course depicted in Figure 4.6, spreads only sent a clear signal to the borrower when they were, or became, infinite; banks were not willing to lend, no matter what was the interest rate offered. Of course, when a country that had enjoyed access to the capital markets received such a signal it was generally too late for a crisis to be averted; because of information lags, the situation was already ominous when banks started to react by curtailing their generosity.

4.6.4. SUPPLY: THE EUROMARKETS' LOCOMOTIVE

All the available evidence points out that the indebtedness process conducted through the Euromarkets between commercial banks and sovereign borrower was supply-driven. This is conclusion fully consistent with the similar lending conditions encountered by industrialised and developing countries. Even more important, it has (or should have) profound implications when trying to distribute

the share of responsibilities between lender and borrower, if both are facing together the harsh task of dealing with a debt crisis.

Yet again, many countries were able to avoid problems. For those in charge of public affairs, it was undoubtedly very difficult to reject the temptation of accepting the abundant loans being offered, and that would considerably ease the financial restrictions typically faced by any government (at least in the short term). However, those countries managed very well avoiding that bait. On the other side of the spectrum, many LDCs –even oil exporters such as Mexico and Venezuela- were insatiable absorbing the savings from the rest of the world that were offered to them, following economic policies that ensured that no amount was sufficient.

4.6.5. THE CONTRASTS BETWEEN THE 1970S AND THE 1990S

The contrasts between the 1970s and the 1990s are given by the differences between the syndicated loan markets and the bond markets. Those differences are important, as it is clear from the interest rates paid by different sovereigns, and the way their credit standing is evaluated. Interest rates *do seem* to reflect the risk of default; their spreads above their respective benchmark is certainly important, and gigantic if compared to the spreads above LIBOR paid in the 1970s by LDCs. And international rating agencies provide an assessment of the creditworthiness of the sovereign borrower that at the very least has much stronger foundations than the one provided in the 1970s by the feeling of the markets. Moreover, some bond issues (albeit a relatively low proportion, 18 percent in the 1990-95 period) are not sold in the Euromarkets, but in national markets such as the Yankee in the U.S., the Samurai in Japan or the Matador in Spain, thus those issues had to fulfil certain requirements and are subject to certain regulations.

Are those differences enough to guarantee that a debt crisis would not happen again. Definitely, the answer is no. If bonds were left out of the rescheduling exercises conducted between HICs and bankers in the 1980s, and were serviced punctually, it was just because the amount of bonds in circulation was not worth the trouble. The situation is extremely different in the 1990s. With a high debt in bonds, a HIC would probably do what was painfully avoided by many in the 1980s: outright default. It can be argued that until now those that have invested in sovereign bonds have enjoyed a remarkable ride: yields much superior to that offered by similar maturity bonds issued by countries with a much higher creditworthiness rating. It is most probable that sooner rather than later some of the owners of those bonds will discover that the risk attached to them was certainly correlated to the spread they offered.⁶⁴ The ownership of bonds, on the other hand, is extremely diluted, and there are no mechanisms to join all those creditors in a single boat. A new debt crisis, but this with bondholders as the most important creditors, is certainly possible, and the negotiation between sovereign and creditors would be at the very least extremely difficult. Most bonds' legal structure is such that any defaulting borrower risks lengthy litigation from myriad bondholders. As in the weeks and months that followed the August 1982 Mexican default (see Chapter 6 for details) a blueprint will have to be improvised if and when a crisis takes place.⁶⁵

⁶⁴ For two recent examples of possible default on bonds by sovereign borrowers, Russia and Pakistan, see Ostrovsky (1999) and The Economist (1999a), respectively. See also The Economist (1999b).

⁶⁵ This last point is explored further in Chapter 7.

CHAPTER 5

BORROWING AND OVER-BORROWING IN THE INTERNATIONAL CAPITAL MARKETS: THE CASE OF MEXICO

5.0. INTRODUCTION

As it has been detailed in Chapter 3, the economic policy followed by Mexico since the late 1950s brought an increasing dependence on external savings to finance development. Those needs exploded when the economic strategy radically changed in the early 1970s. As the fiscal expansion was transmitted to the external sector, 1973 marked a watershed in the process of external indebtedness. During the following decade Mexico enjoyed a (relatively speaking) unlimited access to the international capital markets. Since then, the country's development has been closely intertwined with external debt.

It is the purpose of this chapter to study in detail that indebtedness process, centring the analysis on the periods when Mexico had access to voluntary financing in the capital markets, particularly the Euromarkets.¹ While Mexico continued to borrow from international financial institutions (FIs) such as the World Bank and the Inter-American Development Bank and contracting bilateral credits with industrialised countries, that amount was very small when compared to the amount contracted through the international capital markets.²

The economic policy that explains why the recourse to debt took place has already been explored in Chapter 3, and the analysis of the supply side of the market (those that provided the lending) was the objective of Chapter 4. The intent of the present chapter is to delve in depth into that indebtedness process while Mexico had open the doors of the international capital markets, and that had no hesitation to use -and in some occasions abuse- time and again. The other side of the coin is represented by those periods termed as debt crises, where one of their main characteristics was that the country became a pariah in those markets. Their study will be the object of the following chapter.

The chapter is not only a history of contemporary external indebtedness in the international capital markets by the Mexican government (that had not been written before), but a profound analysis of the strategies, market conditions and implications of that borrowing. As important, several of the hypotheses presented in Chapter 4 will be tested by looking at the specific case of a country that was, and continues to be, of the most constant sovereign visitors to the Euromarkets: borrowing from syndicates of commercial banks until 1982 and investors in bonds after 1989.

From 1973 to 1995, four periods of indebtedness can be clearly distinguished, all of them with a debt crisis as a line of demarcation: 1973-76, 1977-82, 1989-94, and 1995 onwards. Each of the three first cycles came to an abrupt end with a balance of payments crisis, with an intense absorption of foreign resources taking place just before the collapse. In all the three cases the country was able, after months or years, to regain its standing in the capital markets. A brief relation of the indebtedness of the Mexican government until 1973 will be presented in the first section, making special emphasis in a little-explored aspect: how the country re-entered the capital markets 10 years before, in 1963. The first Mexican incursions in the markets are briefly looked at.

¹ As it will be detailed in Chapter 6, during the 1980s crisis the commercial banks extended to Mexico (along with many other HICs) loans termed as "involuntary" by the lenders because they were conceded to avoid default by the borrower and after prolonged negotiations.

² For example, at the end of 1977, total external public debt stood at \$22,912 million dollars (see Table B1). Of that figure, \$19,338 million (84.4%) were owed to commercial banks and bondholders. By 1981 that proportion had increased to 87.6%

Section 5.2 mainly studies external indebtedness during the 1973-76 cycle, initially looking at borrowing in the first years of the 1970s, to explain how Mexico was able to successfully increase its indebtedness pace from mid-1973 to the third quarter of 1976. It is clear how by 1974 the Mexican economy was heavily addicted to external debt, as the Herstatt crisis of that year (see Chapter 4) had a clear negative impact on the country.

The 1977-82 debt cycle is studied in section 5.3. It is divided into three parts. The first one looks at a Mexican government that followed an extremely judicious external indebtedness policy during 1977-80. Exactly the opposite story was to happen during 1981-82, when Mexico increased its pace of external indebtedness markedly, in a futile attempt to sustain an expansionary economic policy and an overvalued peso (see Chapter 3). All the potential accesses to the capital markets were exploited thoroughly. The last part of the section looks at how the markets reacted to this and eventually closed their doors on Mexico, but only after being drained, supporting one of the conclusions outlined in the previous chapter: sovereign borrowers evade the expected discipline that the markets are supposed to impose on them.

The lending conditions during the 1973-76 and 1977-82 cycles are explored in the following section, looking particularly at two points: the cost (spread above a floating interest rate) paid by the Mexican central government and enterprises for their loans, and the maturity of those loans. The spreads are by far the most important of those issues (as it has been clear from Chapter 4). That is why the following two sections analyse them in detail: 5.5 looks at the spreads paid by Mexico and compares them with those covered by other sovereign, to support again one of the main conclusions of Chapter 4: contrary to conventional wisdom on the subject, spreads were determined and moved by international factors. Domestic factors had a extremely limited influence on their movement. The empirical evidence presented in section 5.6 supports those conclusions.

After the 1982-89 crisis is left behind (studied in detail in Chapter 6), a new debt cycle begins in 1989. Mexico now borrows mainly through international bonds instead of syndicates. However, that is not the main difference with respect to the previous cycles: a quasi-external indebtedness also takes place through internal indebtedness, through the Tesobonos. Dollar-denominated and mostly owed to foreign investors, a massive debt switch took place in 1994, whereby most of the Cetes in private hands were swapped for Tesobonos. The section, divided in two parts, analyses the Tesobonos, why the government issued them, and the 1994 swapping process, as the Tesobonos were to play a prime role in the meltdown of the Mexican economy at the end of 1994.

Section 5.7 looks at the conditions of the borrowing through the international bond markets in the 1989-94 cycle, also supporting the conclusion reached in Chapter 4, that states that the syndicated and bond markets are quite distinct from each other. The following section looks briefly at the beginning of the new debt cycle in 1995, as (as part of the 1994-95 debt crisis and its aftermath) it is studied in the following chapter. Conclusions end the chapter.

5.1. EXTERNAL INDEBTEDNESS BEFORE 1973

Mexican history has always been tangled with external debt.³ With traditional revenue sources destroyed by the independence war fought against Spain, the Mexican government started looking for foreign resources just a few months after being established as such. In 1824 and 1825 it issued bonds to pay the loans contracted with B.A. Goldschmidt and Co. and Barclay, Herring, Richardson, and Co. These loans also symbolise the poor record of Mexico as a sovereign debtor, marking the beginning of a long history of moratoriums (debt service was interrupted in six occasions in 1824-80), reschedulings, and even repudiation (the debt acquired by the French-imposed emperor Maximilian). The so-called London debt was effectively negotiated until 1888. A period of political stability and economic development allowed then a new entrance to the international capital markets, that ended in 1913, because of the Mexican Revolution that had begun in 1910.

From 1913 to 1942, there was no access to lending. Agreements with creditors in 1922, 1925, 1930, and 1931 became virtually null when, shortly after signed, Mexico declared it was unable to honour them. However, in 1942 and 1946 all the external debt was negotiated under extremely advantageous terms; principal was reduced 80.6% on average, and overdue interest payments almost cancelled (Navarrete 1958, 73-74; Bazant 1968, 215-227). In 1946 Mexico virtually had a fresh start as a debtor. External borrowing took place, but came mainly from official sources.⁴ In July 1960 the government started to pay in advance the bonds issued under the 1940s agreements. Of the \$36.2 million in circulation, virtually the whole amount was liquidated during 1960-61.⁵ With practically no external debt in private hands and a good record with official lenders⁶, Mexico started to attract the attention of private financiers –that until then had limited most of their loans to short-term trade-related credits. The private placement by the Prudential Life Insurance Co. in March 1960 with Nafinsa (1960ba, 117-118) was a milestone, but the formal re-entry to the international capital markets took place in July 1963, with the first public offering of bonds in 50 years raising \$40 million (Table 5.1). The original aim was \$35 million, but the good reception the offer had moved the government to increase it (Maidenberg 1963, 1; New York Times 1963, 36; Ortiz Mena 1965, 347; Wall Street Journal 1963, 16).⁷

Data on public external debt (stock, flows, and interest payments) differs widely from one source to another.⁸ From the series presented by Nacional Financiera (1972a, 298) and Zedillo (1981, 45, 51) it emerges that external debt starts to play an important role since the second half of the 1950s (see Tables B1 and 5.2). By the 1960s external debt was an important source of public financing, particularly for investments by SOEs (Ortiz Mena 1965, 48, 244, 338-339). External indebtedness clearly

³ Griffith Dawson (1990) presents a detailed account of the 1824-25 loans and their aftermath. For a detailed history of Mexican public indebtedness from 1824 to 1946 see Bazant (1968), for a brief summary see SHCP (1988, 11-15).

⁴ The first credits from the U.S. Eximbank were received in 1935 (Nafinsa 1962bb); from the IMF in 1947, the World Bank in 1949 and from the IADB in 1961 (Green 1976, 18-57).

⁵ The debts negotiated in 1942 and 1946 had January 1968 and January 1975 as the last possible payment dates, respectively. Chase Manhattan was the agent for the operation (Nafinsa 1960bb, 335). In his second and third Annual Reports to Congress, President López Mateos described the buyback's progress. By September 1961, 15 months after it started, \$35.5 million (98 percent of the total) had been paid (López Mateos 1964, 102, 193).

⁶ Other important LDCs -Argentina, Turkey, and Brazil- were renegotiating important amounts of debt with official lenders during that period. See Table 4.2.

⁷ The respective Tombstone is included in Appendix E.

⁸ For example, between the data presented by Nacional Financiera (a, several issues); Green (1976, 1997), Zedillo (1981), and Gurría (1993). Data from Green is not used for comparisons as it only includes gross flows of external debt.

followed the political cycle⁹, with the last year of the administration (1952, 1958, 1964, 1970) presenting an important increase, counterbalanced by a pointed drop the following year. This is explicable by the rush that any outgoing regime has to finish certain projects, contrasted with the caution observed by any new administration during its first months in office (see Tables 5.2 and B1).

Table 5.1. The Return by Mexico to the International Capital Markets, 1960-63^a

Date	Borrower	Amount	Main Features of the Loan
03.60	Nafinsa	\$100.0	15-year loan from the Prudential Life Insurance Company, not tied to any specific purposes. Interest rate: 6.875%.
01.62	Nafinsa	\$75.0	Credit from the Instituto Mobiliare Italiano. Interest rate: 5.5%.
1962	Pemex	\$50.0	Credit from 10 U.S. banks.
02.07.63	UMS	FFr750.0 (\$100.0)	FFr500 million credit from private banks. ^b Interest rate: 6.5%. FFr250 million from Crédit National. Interest rate: 4.0%.
15.07.63	UMS	\$40.0	First public bond offering since 1913.

a. The most important loans received by the Mexican government from private sources during the period.

b. Banque Nationale pour le Commerce et l'Industrie, Banque pour le Commerce Extérieur (checar), Crédit Lyonnais, Comptoir Descompte, PARIBAS, Banque de Indochine, Banque Worms, Société Générale.

Source: Constructed with information from Ortiz Mena (1965, 244, 335-348); Nafina (1962ba, 37) and Table B15.

Table 5.2. Net Public Indebtedness^a, 1954-72
(million dollars and percentages)

Year	Total Net Flow ^b	GDP ^d	As Percentage of ^c		Reserves ^e	Total Net Flow ^f
			Current Account	Capital Account		
1954	25.0	0.38	11.0	86.5	12.5	-
1955	37.2	0.52	-2188.2	22.8	10.6	-
1956	35.4	0.43	19.3	42.9	7.8	-
1957	75.8	0.80	21.1	46.3	16.2	-
1958	301.9	2.87	78.3	305.9	75.9	-
1959	54.0	0.48	23.3	47.0	12.8	-
1960	196.5	1.54	38.1	164.6	44.1	-
1961	198.4	1.43	45.6	332.3	52.0	-
1962	108.1	0.72	30.1	141.5	26.0	-
1963	191.3	1.15	50.3	-448.0	38.3	-
1964	389.7	1.98	65.2	335.1	69.4	-
1965	52.8	0.25	8.7	14.4	9.6	-
1966	235.6	0.99	39.2	65.1	43.1	202.6
1967	538.7	2.07	65.6	197.9	86.4	461.2
1968	371.1	1.29	36.4	139.2	57.6	370.1
1969	481.1	1.51	51.3	288.6	69.3	603.7
1970	443.4	1.25	33.6	74.5	57.9	484.7
1971	411.2	1.05	33.9	78.4	41.7	283.1
1972	154.2	0.34	11.5	-115.2	11.4	518.8

a. Not net of credits granted by Mexico, but that amount was minimal.

b. Net flow according to the external debt statistics presented by Zedillo (1981, 45).

c. Comparisons made with the Zedillo statistics. The statistics from Nafinsa (1970a) are not used because they only include long-term debt. Comparisons made with the current account *deficit* and the capital account *surplus*.

d. At current prices, divided by the average exchange rate.

e. Average stock of gross international reserves during the year.

f. Net flow according to the external debt statistics presented by Gurría (1993, 230).

g. In 1955 the current account showed a *surplus* of \$1.7 million dollars. All the other years presented a deficit.

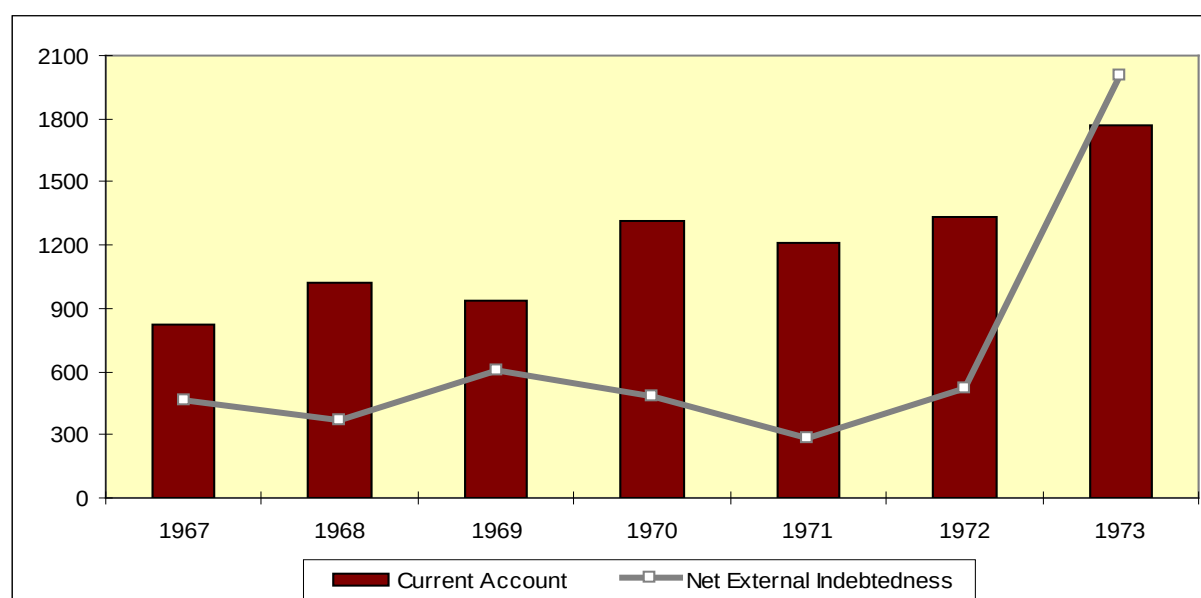
Source: Constructed with data from Tables A1, A14, A23, and B1. International reserves for the 1954-59 period were estimated with data from Banco de México(d).

⁹ Mexican Presidents are elected for a fixed six-year term. Re-election is prohibited.

5.2. THE 1973-76 CYCLE

While the SD strategy was abandoned in the first months of 1972 (see Chapter 3), the expansion that followed took time to impact the external accounts. Not only they deteriorated markedly in 1973, but uncertainty in the economic strategy brought, from the first months of that year, important amounts of capital flight (until 1972 significant *inflows* had taken place, see Tables A25-A26). External indebtedness more than compensated for the yawning current account deficit¹⁰ (Figure 5.1.).

Figure 5.1. Net External Indebtedness and Current Account Deficit, 1967-73
(million dollars)



Source: Elaborated with data from Tables A14 and B1.

Since 1971, the government had started to favour borrowing through banks' syndicates over bond offerings. The pooled resources of a syndicate allowed for huge amounts to be obtained in one loan; sums that had been inconceivable few years before.¹¹ At the beginning of the 1970s, the traditional Mexican bond ranged from \$20 to \$40 million dollars (see Table B15), while in mid-April 1971 the government reached for the first time the \$100 million barrier, with a syndicated loan headed by N.M Rothschild & Sons. A few months later, in December, another syndicate, with Bank of America as agent, brought in \$120 million¹² (see Table B14). During 1972 the country obtained \$176.5 million through bond issues, and \$381.5 million via syndicated loans (OECD 1996, 41 and 247). When an explosive pace of external indebtedness started in 1973, several factors moved lenders to comply (see Chapter 4). Moreover, Mexico, an important LDC with good development prospects, had a small external debt

¹⁰ That allowed the stock of gross international reserves to be constantly replenished. That stock ended 1973 (at \$1513.1 million dollars) virtually at the same level it had at the end of 1972 (\$1521.1 million, see Table A23).

¹¹ In May 1965, the Mexican Secretary of Finance had pointed out that until then, the biggest single borrowing by a sovereign (Australia) had reached \$80 million dollars. For Mexico, he considered, operations above \$150 million were just unthinkable (Ortiz Mena 1965, 127-130).

¹² These credits pooled resources that were distributed among several public borrowers. The respective Tombstones of the two credits are included in Appendix E.

and a good reputation as debtor. Moreover, the 1973-74 oil shock possibly justified the Mexican explosive indebtedness to the eyes of the markets.¹³

An increasing dependence on external debt would start in 1973 (Table 5.3). The aggressive borrowing begun with a \$300 million loan negotiated by Banobras, signed on July 18. Appropriately enough, Kuhn, Loeb & Co. and First Boston, both had opened the access of Mexico to the international bond markets a decade earlier, were in the lead management group (see Tables B14 and B15).¹⁴ The amount was unprecedented, and the terms generous (12-year maturity and average spread of 0.656% above LIBOR).¹⁵ Also during the second half of 1973, Bank of Mexico did another landmark borrowing: a \$500 million stand-by loan, available for three years, to be drawn at any moment during that period, pooled by a 52-bank syndicate. This amount was summed to the so-called secondary reserves of the central bank (Banco de México 1973a, 28).¹⁶ Not only the sum was unprecedented, but it was also the first time that the country openly negotiated a commercial loan to support its currency reserves, instead of “project financing”. The markets did not flinch when the agreement was activated few months later, on January 16, 1974.¹⁷ In just six months, with two syndicated loans, Mexico had borrowed virtually the same nominal amount accumulated through bond offerings in the 1963-72 decade.¹⁸

The spree continued unabated during the first semester of 1974, to come virtually to a halt during the third quarter. Mexico suffered, as many other borrowers, of the Euromarkets’ drying up that followed the Herstatt crisis, which erupted on June 26 (see Chapter 4). Borrowing during that quarter (a meagre \$61 million) was the lowest since the first quarter of 1973. The government would have gone to the Euromarkets for additional funds, but no more were available. This is clear in the fact that on August 21 the Bank of Mexico activated, for the first time since it was established in May 1967, the Reciprocal Currency Arrangement it had with the U.S. Federal Reserve.¹⁹ The full amount available, \$180 million, were drawn to boost its reserves, days before the key date of September 1²⁰ (Figure 5.2).

¹³ It is important to stress that the cycle of explosive indebtedness by Mexico, that started in mid-1973, begun several months *before* oil prices started to climb (see Table C19). Both events occurred in 1973, but are not connected, as possibly was the case of other countries. Moreover, Mexico was in 1973-74 just a marginal oil importer (see Table 3.2).

¹⁴ Two big U.S. banks, Chemical (that acted as agent), and Manufacturers Hanover Trust, along with the LTCB (Japan), formed the rest of the management group. In total, including the managers, 48 banks provided funds for the loan. The respective Tombstone is included in Appendix E.

¹⁵ In the first seven months of 1973, Mexican public borrowers had obtained seven syndicated loans for a total of \$135 million, with an average spread of 0.750%, and average maturity of 11.2 years (see Table B14). The lending conditions to Mexico in 1973-82 will be analysed in section 5.4.

¹⁶ These secondary reserves were built by the support available to Mexico from the Exchange Stabilisation Fund of the U.S. Treasury (\$200 million in 1973), the Reciprocal Currency Arrangement held with the U.S. Federal Reserve System (\$180 million), and the drawing capacity of Mexico from the IMF (\$446 million). See Table A24 for details.

¹⁷ Date when the loan was signed. Officially the loan was made to the United Mexican States, not the Bank of Mexico. The respective Tombstone is included in Appendix E.

¹⁸ \$836.4 million dollars (OECD 1996, 39 and 41). See Table B15.

¹⁹ A currency swap arrangement between both central banks, by which currencies could be exchanged without entering the foreign exchange markets. The Bank of Mexico was the only central bank from an LDC to have an established swap line with the Federal Reserve. See Table A24.

²⁰ On that day, President Echeverría was to present his Annual Address to the Mexican Congress, and as part of it he was to announce the updated value of international reserves, a figure that was made public only *twice* a year (see Table A23). Without the \$180 million from the Federal Reserve, the figure would have been the lowest since 1971, with a negative impact on public confidence on the sustainability of the exchange rate (shaky since 1973). Thanks to the swap, Echeverría was able to announce that the stock of gross international reserves was higher than in the same day of 1973 (Echeverría 1976, 110). The swap was paid to the Federal Reserve in November, prior to maturity (after Mexico had regained its habitual access to the capital markets).

Table 5.3. Net Public Indebtedness^a, 1973-82
(million dollars and percentages)

Year	Total Net Flow ^b	GDP ^d	As Percentage of ^c		Reserves ^e	Total Net Flow ^f
			Current Account	Capital Account		
1973	2005.8	3.59	113.35	380.4	140.4	1627.9
1974	2904.6	3.98	84.04	189.3	187.6	2925.0
1975	4474.0	4.99	99.36	270.5	282.2	4331.3
1976	5151.2	5.67	140.35	347.9	337.9	5141.3
1977	3311.9	3.93	165.41	-193.4	189.1	2987.3
1978	3352.2	3.16	106.37	-402.1	159.2	2588.8
1979	3492.9	2.50	74.30	413.6	131.8	3334.7
1980	4055.6	2.08	38.87	35.6	115.0	-
1981	19147.8	7.26	117.90	72.0	451.1	-
1982	5913.6	3.25	100.40	59.2	223.6	-

Note: The Gurria statistical series are used for comparisons, and not those from Zedillo, as was done in Table 5.1, because Gurria's are fully consistent with data from the SHCP, and Zedillo's end in 1979. However, as it is evident by comparing the two of them, the differences were small in several years.

a. Not net of credits granted by Mexico, but that amount was minimal.

b. Net flow according to the external debt statistics presented by Gurria (1993, 230).

c. Comparisons made with the Gurria statistics, with respect to the current account *deficit* and the capital account *surplus*.

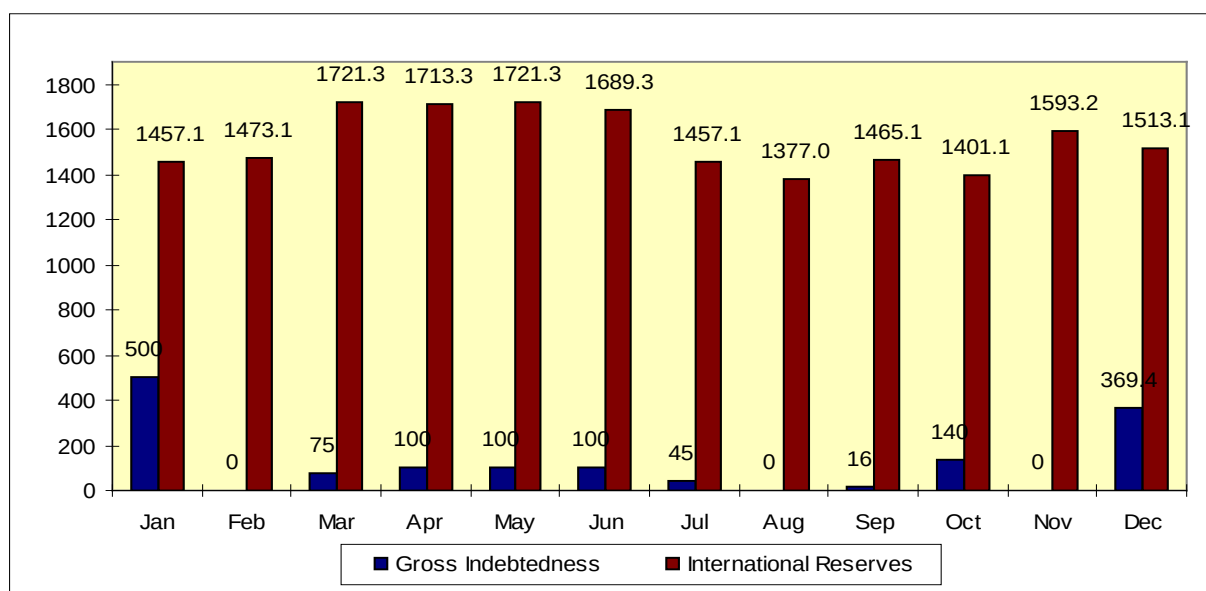
d. At current prices, divided by the average exchange rate.

e. Average stock of gross international reserves during the year.

f. Net flow according to the external debt statistics presented by Zedillo (1981, 45), that finish in 1979.

Source: Constructed with data from Tables A1, A14, A23, and B1.

Figure 5.2. Gross Indebtedness through Publicised Syndicated Loans
and Gross International Reserves during 1974
(million dollars)



Source: Elaborated with data from Tables A23 and B14.

Borrowing would recuperate its pace in the last quarter of 1974, and continue unabated for the next two years, as no other mishaps affected the Euromarkets. Of the 14 year quarters between July 1973 and December 1976, in all but two Mexico borrowed at least \$300 million from the Euromarkets (the period that followed Herstatt was one of them), and during the fourth quarter of 1975 it received a record \$1.05 billion (Table 5.4). But even with that record borrowing, the Bank of Mexico appealed again to the U.S. Federal Reserve. During October and November 1975 it borrowed the maximum amount

under the agreement: \$360 million.²¹ A possible explanation was the strong speculative attack suffered by the peso during the period, as during the last quarter of the year almost \$600 million left the country, the highest quarterly capital flight registered until then (see Table A26). The swap was repaid in December, before maturity, but apparently capital flight drove again the central bank to turn to its U.S. peer, and in April 1976 the \$360 million were drawn again (capital outflows during the second quarter amounted to approximately \$1.1 billion, and a similar amount left the country during the third). In this case the repayment would take longer (a roll-over of the swap was requested), as in August a balance of payments crisis exploded. On the Euromarkets side, the deterioration of the economy throughout the year apparently had no effect on the borrowing spree (Table 5.4). However, as a new government took office in December, Mexico faced what would be turn out to be a shortly spanned isolation from the Euromarkets. The borrowing spree enjoyed for more than three years (with the exception of the third quarter of 1974) ended with a brief bust.²²

Table 5.4. Quarterly Gross Indebtedness through Syndicated Loans^a, 1973-76
(million dollars)

Year	I	II	III	IV	Total Own	Total OECD And World Bank
1973	10.0	115.0	400.0	476.5	1001.5	1177.5
1974 ^b	575.0	300.0	61.0	519.0	1455.0	1478.4
1975	104.0	380.0	375.0	1050.0	1939.3 ^c	2150.9
1976	355.0	333.7	465.0	800.0	1953.7	2139.5

a. The World Bank and OECD statistics present the total amount borrowed by Mexico through syndicated loans. The quarterly breakdown presents the aggregate of the *publicised* syndicates to *public* sector borrowers during the period. The difference between the total derived from the data in Table B14 and that from the international organisations is mainly because of the syndicated loans to the Mexican *private* sector, but there may also be a small difference because of syndicates that were not made public.

b. It is relevant to point out that the difference between both totals for 1974 is \$23.4 million, and therefore the possibility of not publicised syndicates does not invalidate the analysis of the Mexican experience in the Euromarkets in the quarter that followed the Herstatt crisis.

c. In the 1975 total are included loans for \$30.3 million that had no specific date in the World Bank data, and therefore are not included within any specific quarter.

Source: Calculated with data from Table B14; OECD (1996, 247).

²¹ The Reciprocal Currency Arrangement had been increased on August 29, 1975, from \$180.0 million to \$360.0 million. See Table A24 for details.

²² For the 1976 economic crisis see Chapter 3. The 1976-77 debt crisis will be analysed in Chapter 6.

5.3. THE 1977-82 CYCLE

The new government headed by José López Portillo managed what would have been incredible just a few weeks before: to radically change the attitude of the capital markets towards the country. In the midst of a balance of payments' crisis and with the economy just starting a stabilisation effort under IMF tutelage (see Chapter 3), it seemed that Mexico was merely beginning a long adjustment to restore its financial lustre. However, in a matter of weeks the wariness of bankers was transformed into enthusiasm. The ace under the Mexican sleeve was oil and, suddenly shown to all the players in the game, it proved to be a winner (see Chapters 3 and 6). Quite appropriately, the loan that marked the return to the Euromarkets²³ was granted to Pemex. With Citicorp as agent, 60 banks integrated a syndicate to jointly provide \$350 million. It was signed on March 21. By mid-1977, another landmark loan was put together by Libra Bank and Lloyds as leaders of 81 banks. The borrower was Nafinsa, and the original amount of \$200 million had to be more than doubled to \$425 million because it was heavily oversubscribed. The end of the year would be marked by the first jumbo to a Mexican borrower: \$1.2 billion for the United Mexican States put together by 119 banks, with Morgan Guaranty Trust as agent.²⁴ In total, Mexico received 15 syndicated loans from the Euromarkets in 1977, totalling \$2.77 billion.

5.3.1. JUDICIOUS INDEBTEDNESS POLICY, 1977-80

During the next few years, particularly until 1980, the government makes the most of its renewed access to the capital markets, with an indebtedness strategy radically different from that observed in 1973-76. López Portillo had direct experience in it, as he had in fact officially presided over the explosive indebtedness cycle that started in 1973 as Minister of Finance and Public Credit.²⁵ One of his first legal initiatives to Congress was the Public Debt General Act, that aimed to bring more order to, and public access of information about, the public (external and internal) indebtedness process.

During the whole of 1977 economic policy was under IMF supervision, and net external indebtedness closely followed the targets established in the stabilisation programme (abandoned in June 1978, see Chapter 3). It would be difficult to say if the external debt policy would have been very much different had the government continued bounded by the programme. Both in 1978 and 1979 net external indebtedness reached similar nominal levels (and inferior in real terms) to that of 1977, very close to the targets that should have been followed (see Table 3.1). Even the 1980 nominal increase was far from spectacular, and fully explicable by the increase in international interest rates. In fact, the relation between net indebtedness and interest payments plummets during the 1977-80 period, from 214.8 percent in 1977 to 106.8 percent in 1980.²⁶ The amounts of net indebtedness were undoubtedly important (see Table 5.3) but nevertheless diminishing in relative terms during the period.

²³ Nafinsa had accessed the Euromarkets a few weeks before, in February, but for a small loan of SWF50.0 million (\$19.8 million). The Pemex loan was considered the milestone that marked the return.

²⁴ The respective Tombstones are included in Appendix E. See the article by Fallon (1977) for details on the Nafinsa loan.

²⁵ However, he was never considered responsible for the indebtedness process while Minister, but seen as following superior orders. As described in Chapter 3, López Portillo's predecessor had been fired in April 1973 for reputedly being unwilling to provide the necessary resources to finance President Echeverría's expansionary policies.

²⁶ This and other debt-related indicators will be explored in extent in Chapter 7.

After 1977 the lenders' enthusiasm continued, with oil remaining the magic word. By 1978, Pemex had turned oil reserve statistics into tangible, and ever increasing, exports (see Table 3.2). Bankers were merely carried in the same wave of optimism along with the government and domestic economic agents.

The judicious behaviour in the amount of debt contracted was followed in other debt policy fronts. Mexican negotiators took full advantage of the bullishness of the markets to improve on the debt maturity profile and cost. From the second semester of 1977, short-term debts started to be substituted for long-term credits. What had been a dangerous proportion of short-term debt -a potential quandary if suddenly creditors refused to roll it over (which nearly became a real nightmare in the first quarter of 1977), had been transformed by the end of 1978. The superb maturity horizon attained by then would be preserved with slight ups and downs until the end of 1980 (Figure 5.3). When syndicate loan proposals went onto the Euromarkets, they were received with ebullience and were oversubscribed by between 50 and 300 percent. For example, in May 1978, a \$250 million loan for Bancomext with Bank of Montreal as agent ended with offers for \$850 million, of which \$700 million were taken –and used to partially refinance the \$1.3 billion short-term debt owed by the eximbank. In the weeks that followed, a \$400 million loan for CFE was increased to \$600 million; a credit for Banrural started at \$350 million and closed also at \$600 million. The government even indulged, from 1978, in the treat of avoiding public syndicates, and borrowing through the so-called clubs or closed syndicates. In 1979, 35 percent of the gross borrowing was made that way (there had been no such deals in 1977).²⁷

Enthusiasm turned to euphoria with the 1979-80 second oil shock (see Table C19). José Angel Gurría, responsible for the process of external indebtedness at the Ministry of Finance, described the 1979 panorama in the following terms:

The banks were hot to get in. All the banks in the U.S. and Europe and Japan stepped forward. They showed no foresight. They didn't do any credit rating analysis. It was wild. In August 1979, for instance, Bank of America planned a loan of \$1 billion. They figured they would put up \$350 million themselves, and sell off the rest. As it turned out they only had to put up \$100 million themselves. They raised \$2.5 billion on the loan in total (Quote in Kraft 1984, 19-20).

Similar examples from that time abound. Two private syndicates organised to lend to Banobras and Banrural aimed each for \$200 million, and finally lent \$600 and \$500 million (both signed in July 1979). Furthermore, an initial offer by the United Mexican States to borrow \$200 million dollars ended up with a syndicate of 33 banks that tripled that amount (signed in October).²⁸

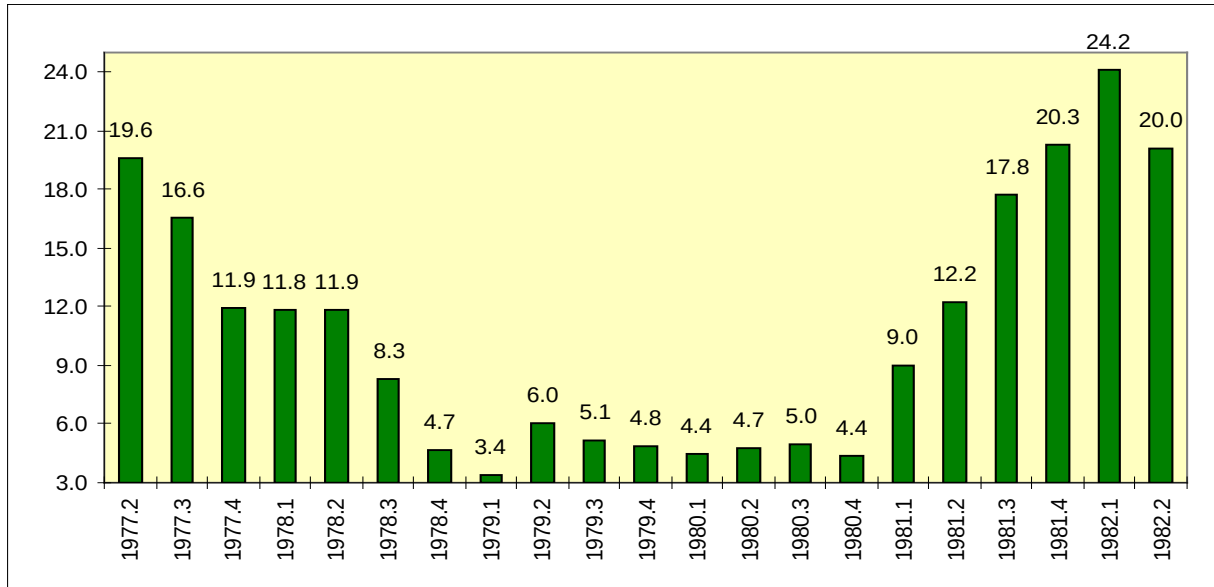
During 1979 the Ministry of Finance continued to take full advantage of the much better conditions offered by the Euromarkets (while spreads plunged, maturities lengthened, see Chapter 4), to further refinance debts. The most outstanding refinancing operation was the pre-payment, in the second quarter of 1979, of \$950 million dollars of a loan contracted by the UMS in November 1977. While that

²⁷ See SHCP (1978b, fourth quarter, 7-8; 1979b first quarter, 5; second quarter, 4-5); Asheshov (1978) and Zedillo (1985, 308) for details.

²⁸ SHCP (1979b, second quarter, 4-5). The \$2.5 billion loan mentioned by Gurría was for Pemex, and was signed in September 1979. The respective Tombstone is included in Appendix E.

loan paid a spread above LIBOR of 1.750%, the spread of the Banobras and Banrural clubs was 0.750% (see Table B14).²⁹

Figure 5.3. Proportion of the Short Term Debt over Total Debt, 1977-82
(percentages)



Source: Elaborated with data from Table B3.

Table 5.5. Mexican Borrowing in the Euromarkets^a, Mid-1980
(million dollars unless otherwise stated)

Borrower	Type	Date ^b	Original Offer (1)	Final Amount (2)	Coupon or Spread ^c	Observations
FINASA	Syndicate	16.04.80	\$200.0	\$250.0	0.500	First Mexican syndicate of 1980. Originally a spread of 0.250% was requested.
UMS	Bond	18.05.80	FFr100.0	FFr150.0	14.000	First Latin American bond in the French market. The issue price was at par.
UMS	Syndicate	18.05.80	- ^d	\$250.0	0.531 ^e	Only-French syndicate.
UMS	Syndicate	21.05.80	- ^d	\$300.0	0.531 ^e	Only-German syndicate.
UMS	Syndicate	28.05.80	- ^d	\$250.0	0.500	-
PEMEX	Bond	12.06.80	\$75.0	\$125.0	11.500	Issue price at par.
CFE	Syndicate	21.07.80	\$200.0	\$300.0	0.563 ^e	Closed syndicate.

Note: It must be pointed out that enthusiastic over-subscription of a loan, and the increase of the amount finally borrowed, was far from being a phenomenon circumscribed to Mexico, but it was certainly a signal of creditworthiness, usually bequeathed to developed countries.

(1) Initial amount asked by the borrower;

(2) Amount borrowed.

a. Syndicates over \$100 million dollars, all other syndicates in other currencies and all the bonds, from April to July.

b. Usually is the signing date of the loan.

c. Spread above LIBOR.

d. If the initial offer was inferior to the final amount of the loan, information is not available.

e. Weighted average by maturity (the spread was different for two tranches of the loan).

Source: Extracted from Tables B14 and B15. The observations are based on the commentaries from SHCP(1981b, second quarter, 5-7).

²⁹ Because of this policy the debt officially amortised ballooned during 1979 (see Table B4), while in reality expensive debt was being swapped for a cheaper one.

The abrupt tightening of U.S. monetary policy at the end of 1979 and the uncertainty it caused in the markets brought a cautious reaction. No loans were contracted during the first quarter of 1980 (resources were obtained from loans negotiated at the end of 1979 and not yet disbursed). When Mexico returned to the Euromarkets (syndicated and bond), its creditworthiness was evident in the overwhelming reception its offerings received. Conditions (particularly the spread) did not deteriorate as it had been feared, but continued improving.

The next months would mark the peak of the standing of the country, with oversubscribed and closed syndicates, as in 1979 (for a sample see Table 5.5). If oil wealth explains the appeal of Mexico since 1977, then public debt management explains the upgrading of its credit relative to that of other countries (Table 5.6).³⁰ The capital markets were widely open for Mexico. That access would allow the abrupt increase in the external indebtedness that begun in 1981.

Table 5.6. Mexico's Perceived Country Risk^a

Date	Institutional Investor		Date	Euromoney	
	Position	Out of		Position	Out of
September 1979	25	93	October 1979	28	66
March 1980	25	96	February 1980	34	75
September 1980	22	96	October 1980	20	67
March 1981	23	100	February 1981	13	67
September 1981	25	100	October 1981	23	58
March 1982	29	105	February 1982	27	69
September 1982	37	107	September 1982	40	117
			September 1982 ^b	65	117

a. Position of Mexico in the *Country Credit Ratings* table published by *Institutional Investor* since September 1979 in the September and March issues and *The Country Risk League Table of Euromoney*, published since October 1979 in the February and October issues (except 1982, when it was published in September).

b. After the possibility of a rescheduling of the Mexican debt was known.

Source: Constructed with data from *Euromoney* (1979, 1980a, 1980d, 198a, 1981c, 1982a, 1982e) and *Institutional Investor* (1980a, 1980b, 1981a, 1981b, 1982a, 1982b).

5.3.2. EXPLOSIVE PACE OF INDEBTEDNESS, 1981-82

From the first quarter of 1981 net external indebtedness not only increased markedly, but an important fraction of it was short-term (the impact is evident in Figure 5.4). Several reasons may have compounded to bring it about: 1) There was a perception that the evolution of the capital markets was going to be favourable, as the just inaugurated Reagan administration in the U.S. had awakened optimism; 2) several SOEs borrowed the resources planned for the whole year, 3) short-term was accepted as a price worth paying for better spreads and flexibility on the loans, and 4) it was expected that during 1981 the interest bill to cover would increase substantially.³¹ For whatever reasons, that borrowing marks the beginning of an explosive pace of indebtedness.

³⁰ One of the central conclusions reached in Chapter 4 must be stressed: the better conditions offered by the Euromarkets and exploited by Mexico were not only the result of an improved creditworthiness rating by the country, but a general phenomenon. However, the *relative* position of Mexico also got better.

³¹ The first three reasons are presented in the report for the first quarter of 1981 sent by the SHCP to Congress. During the last quarter of 1980 both LIBOR and Prime rates started to increase, and would reach their historical peaks, nominal and real, during 1981 (Gurría 1993, 20-21). See Tables B2, B3 and C1.

In early June 1981, a bungled reduction in the oil prices radically changed the expectations on the peso-dollar parity (see Chapter 3). With macroeconomic indicators showing far from orthodox numbers, just a small straw was needed to shatter confidence. The oil price blunder was more than enough: credibility collapsed in just a matter of days and a strong flight from the peso started: capital flight skyrocketed from an estimated \$250 million during the first quarter to almost \$4.1 *billion* during the second (see Table A26). The government had two basic options: to validate those expectations and devalue, or finance capital flight hoping to fend off the attack. For López Portillo the choice was clear, and also where the money was going to come from:

The alternative was an abrupt devaluation or a slow devaluation (crawling peg)... I opted for the latter alternative. Doing so, I implicitly accepted to increase the external debt to keep dollar reserves in the central bank and the free convertibility of our currency... In few words, I accepted implicitly to finance capital flight... (López Portillo 1988, 1151-52).

Apparently the President had been told that bankers considered that the situation was not worrying, and that credits would be available to avoid devaluation (Volcker and Gyohten 1992, 197; Sachs 1988a, 245). While the first part was far from correct, the second was true, at least for some months. To finance capital flight *and* the exploding fiscal and current account deficits, debt was required in such amounts that it seemed unattainable (Gurría 1993, 23-24). Traditional sources (bonds and syndicates) would render, if exploited vigorously, around \$1 billion (gross) per month (Gurría 1988, 77). As much more was required, all sources were exploited:

The answer was in the short term bank funds; that would be obtained with relative ease and fast disbursements, and with minimal documentation requirements. Thus, since mid-1981 Mexico started to contract a great number of short term bank credits and to refinance them periodically (to one, three, or six months, depending on the period conceded by each lender) (Gurría 1988, 77).

All SOEs with access to the capital markets, along with the central government, were ordered to borrow as much as possible, regardless of the loan maturity. To avoid a “contamination” of the market, none were told that all had received similar instructions (Gurría 1993, 24n10). Because of regulatory distortions, Japanese banks were particularly enthusiastic in lending short-term.³² Naturally, a crucial SOE to obtain resources was Pemex, because of its prime credit standing. Arguably the best example of how it fulfilled the objective of draining the markets was the six-month revolving facility signed in June 1981. Headed by Bank of America, 82 banks agreed to provide up to \$4.0 billion.³³ The facility, it was discovered later, even violated the Federal Reserve’s lending limits (Kraft 1984, 27-28). It was completely dried up and, as it was equivalent to a six-month loan, it demanded constant roll-overs. Other Mexican borrowers were similarly successful in the desperate quest for credits. The inroads the collective effort made in the Euromarkets through medium-term syndicates can be appreciated in the Tables 5.7 and 5.8.

³² Only one regulation from the Japanese government specifically restrained exposure to a single country: lending with a maturity of longer than a year would not surpass 20% of its capital and reserves. Regulations said nothing of short-term lending. That loophole was used by many banks to skirt the 20% ceiling (Curtin 1982, 113-114).

³³ This revolving-credit was originally the \$2.5 billion loan for Pemex signed in September 1979 and mentioned previously, that was augmented in June 1981. The respective Tombstone is included in Appendix E.

Table 5.7. Quarterly Gross Indebtedness through Syndicated Loans, 1977-82
(million dollars)

Year	I	II	III	IV	Total Own	Total World Bank	Total OECD
1977	409.0	186.2	867.9	1303.6	2766.7	2895.4	2895.4
1978	128.4	2087.4	1406.5	1660.5	5282.8	6553.7	6219.6
1979	1554.0	1764.4	5035.0	1400.0	9753.4	7654.5	10488.0
1980	0.0	1150.0	1190.0	1405.0	3745.0	5017.0	5858.4
1981 ^b	852.1	1975.0	4432.0	1207.0	8521.1	n.a.	7898.5
1982	859.2	7252.4	-	-	8111.6	n.a.	6509.9

a. The World Bank and the OECD statistics present the total amount borrowed by Mexico through syndicated loans. The quarterly breakdown presents the aggregate of the *publicised* syndicates for public sector borrowers during the period. The difference between both totals until 1980, apparently, is made by those syndicates that were not made public, and/or syndicated loans to private sector borrowers. There is no explanation, though, of the discrepancies between the OECD and World Bank statistics, that only coincide in one year. The enormous discrepancy in 1981 and 1982 (where the OECD registers *inferior* amounts to the publicised loans) is possibly result of the quick indebtedness observed during the period.

b. In the 1981 total is included a loan for \$55.0 million that had no specific date in the Tombstone, and therefore is not included within any specific quarter.

Source: Calculated with data from Table B14; World Bank, *Borrowing in International Capital Markets* (second-half 1980, 40 - publication that ceased to be published in 1980); OECD (1996, 247 and 251).

Table 5.8. Selected Loans to Mexican Public Borrowers, June 1981-June 1982^a
(million dollars)

1981			1982		
Borrower	Date	Amount	Borrower	Date	Amount
PEMEX	30.06.81	\$1500.0 ^b	United Mexican States	24.02.82	\$168.9 ^c
PEMEX	06.07.81	\$100.0	BANRURAL	24.03.82	\$400.0
United Mexican States	09.07.81	\$195.0	PEMEX	02.04.82	\$2000.0
BANCOMEXT	24.07.81	\$550.0	SICARTSA	15.04.82	\$356.4 ^c
United Mexican States	05.08.81	\$700.0	SICARTSA	19.04.82	\$130.0
BANOBRAS	11.08.81	\$1000.0	SICARTSA	19.04.82	\$100.0
CFE	14.09.81	\$425.0	CONASUPO	29.04.82	\$103.0
PEMEX	18.09.81	\$658.9 ^c	NAFINSA	07.05.82	\$1200.0
PEMEX	16.10.81	\$200.0	PEMEX	28.05.82	\$400.0
SOMEX	10.81	\$400.0	United Mexican States	30.06.82	\$2500.0
NAFINSA	17.12.81	\$500.0 ^c			
			Total 1981-82		\$13587.2

a. Only medium-term syndicates of at least \$100 million dollars are included.

b. The loan was officially for \$4.0 billion. However, it was an expansion over a \$2.5 billion loan granted in September 1979.

c. Loan originally denominated in a currency different from the U.S. dollar.

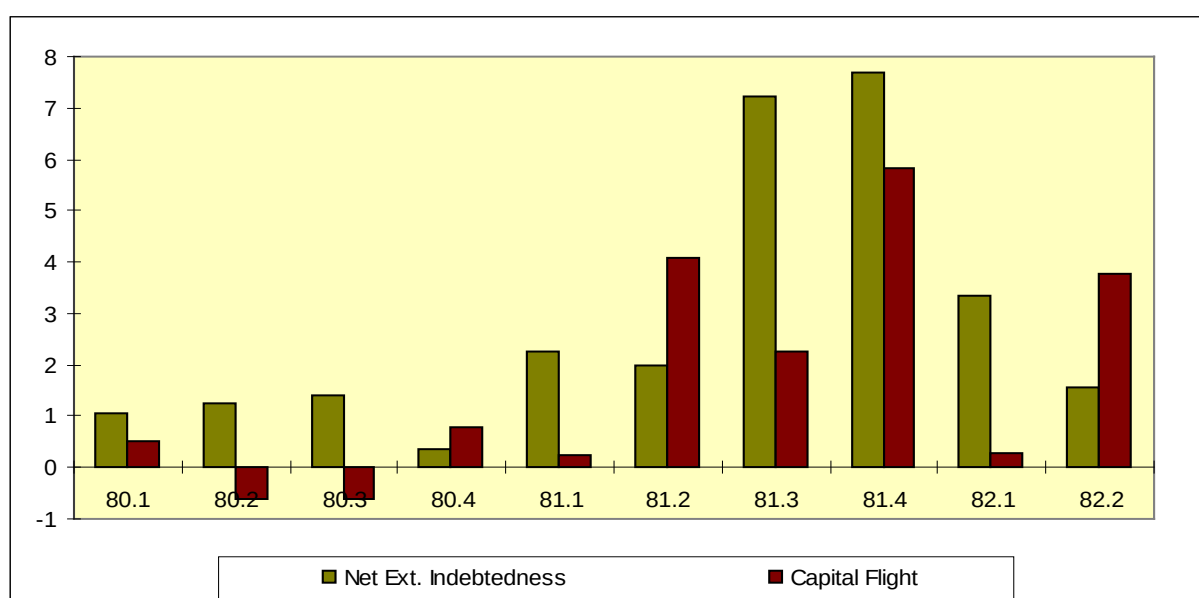
Source: Constructed with data from Table B14.

Asides from the central government and SOEs, another source to obtain loans were the Mexican commercial banks that also had access to the capital markets. On instructions from the government, the banks borrowed and re-lent to the public sector (Solís and Zedillo 1985, 274). The banks deposited what they borrowed in the central bank (thus engrossing the reserves). In exchange they received pesos, that they could lend domestically. With no exchange risk, as they were backed up by the dollars in the central bank, lending at the nominal interest rates of Mexico (much higher than the international levels) was extremely profitable (Teichman 1989, 171). But what would render by far the highest amount of resources was the open access that six Mexican banks (five of them private) had in London and New York to the interbank market; a fast, informal market (with all transactions arranged over the telephone) where banks provided short-term loans (normally between overnight and six

months) to each other. As soon as a counterpart with whom to deal was found, the actual transaction would typically take only a few minutes.³⁴ By August 1982, the six banks had borrowed \$6.5 billion through that market, 90 percent due within six months (Kraft 1984, 29).

External indebtedness was so speedy that even the first reports of the Bank of Mexico underestimated the 1981 figure by almost \$4.0 billion (Solís and Zedillo 1985, 274). While the net external debt grew in 1981 by \$19.1 billion, international reserves increased a meagre \$1 billion (see Table A23), while massive capital outflows were financed (Figure 5.4). Solís and Zedillo (1985, 263-269) present a detailed breakdown of the sources of growth of the external debt in the 1979-81 period. According to their analysis, 55.7 percent of the debt contracted during 1981 is explained by capital flight.

Figure 5.4. Quarterly Net External Indebtedness and Capital Flight^a, 1980-82
(million dollars)



a. A negative sign (in 1980.2 and 1980.3) means that a capital inflow took place.
Source: Elaborated with data from Tables A26 and B3.

The explosive pace of indebtedness continued during the first semester of 1982 (Tables 5.6 and 5.7). Until mid-February López Portillo defended the peso. When the devaluation finally came, on February 17, the Bank of Mexico had lost more than half the reserves it had at the end of 1981. As banks started to be less optimistic about the prospects for the country, loans started to dwindle. As important capital outflows ignited again after generous wage increases were decreed in March, the government again needed to appeal to the Federal Reserve. The swap facility was activated on 30 April, 30 June and 31 July to boost the month-end figure of the reserves (Table 5.9). Trying to buy time for a new government to be elected, the Fed agreed to authorise the one-day swaps:

We would transfer the money each month on the day the reserves were added up, and take it back the next day. Our unease did not arise from any fear of financial loss, but because the “window dressing” disguised the full extent of the pressures on Mexico from the bank lenders and from the Mexicans themselves. I justified the actions to the

³⁴ A detailed description of the interbank market can be found in BIS (1983).

Open Market Committee, with Treasury acquiescence, on the basis that (Mexican Finance Minister) Silva Herzog was willing to give us his personal assurance that Mexico would seek an IMF program as soon as the new president had the freedom of action to bring it about (Volcker and Gyohten 1992, 199).

But even if the reserves were artificially inflated, there were abundant signals on the deterioration that the Mexican economy was suffering for anybody, among them the commercial banks, to see, and follow the lead of domestic economic agents on reacting.

Table 5.9. Use of the Reciprocal Currency Arrangement and International Reserves, 1982^a
(million dollars)

Drawing Date	Amount Available	Amount Drawn	Repayment Date	Gross Int. Reserves (1)	Gross Int. Reserves (2)
April 30	\$700	\$600	May 1	2318.8	1718.8
June 30	\$700	\$200	July 1	2148.2	1948.2
July 30	\$700	\$700	August 1	2295.5	1595.5

(1) With the support of the swap from the Federal Reserve.

(2) Without the support of the swap from the Federal Reserve.

Source: Constructed with data from U.S. Federal Reserve (1982a, October, 606-607), Kraft (1984, 8) and Table A23.

5.3.3. THE BANKS STOP LENDING: 1982

Not surprisingly, analysts are baffled by the complacent conduct followed by lenders (that, as it is clear from Chapter 4, was not constrained to Mexican borrowers):

It will take the talent of a top specialist on highly competitive but imperfect markets to understand why international bankers did not stop lending to Mexico before they did (Zedillo 1985, 314).

Considering the far from orthodox and always worsening macroeconomic indicators after 1978, the skyrocketing of international interest rates after 1979, the international recession that followed, and the explosive indebtedness that begun in 1981, the mystification seems well placed. However, the lenders' behaviour can be explained by the factors detailed in Chapter 4. Moreover, scarcity of aggregate information was even more acute, as several reporting systems did not include short-term indebtedness (48.4% of the \$19.1 billion of the 1981 net indebtedness). But even with all the information shortcomings, that available at the end of 1981 was enough to indicate serious problems to any keen observer.³⁵ By the first months of 1982 bankers, and authorities of developed countries, were beginning to realise serious potential problems in the external debt front. As a banker pointed out in March:

During the last year, the Mexican situation has deteriorated. The symptoms are manifold: high rates of inflation... an increasing balance of payments deficit... overvalued exchange rate... declining oil and other export prices; limited capability in exporting manufactures; world inflation; higher interest rates... The Mexican government must, however, continue to borrow almost \$1 billion per month *net*! (Friedman 1983, 121. Emphasis in the original).

³⁵ The November 1981 issue of *Institutional Investor* had Mexico's travails as its cover story (Asheshov 1981a, 1981b).

Apparently the thinking of many bankers was that their options with a troubled borrower were: 1) to lend more, expecting that those resources would help the government avoid a major crisis; 2) not to lend more, waiting for Mexico to correct its situation, maybe going to the IMF for financial support (as it was expected from countries with diminishing creditworthiness).³⁶ In extreme situations, even not to roll-over credits when due. On that dilemma, Friedman presented a perspective undoubtedly shared by many of his peers:

The answer is not yet clear because these events are so recent. Banks cannot postpone decisions -a decision *not* to lend is a decision. Every bank is on its own. No bank -I repeat, no bank- can defend itself by lending more. It can help rescue an individual credit, but it cannot rescue a country... Banks do not act as a system or a group (Ibid, 121-122. Emphasis in the original).

With no co-ordination, the only option for an individual bank was not to lend more, as any new money would only serve to pay other banks' claims. This included roll-overing a loan coming due, as the debtor's scarce resources would then be used to pay the bank that followed in the queue.³⁷ Bell and Heimann (1982b, 13) present an example of such behaviour, with banks pulling in opposite directions:

A 1976 bankers' attempt to obviate rescheduling by extending a balance-of-payments loan to Peru, for example, was undercut when some other banks simultaneously reduced their short-term credit lines to Peru.

During the second quarter of 1982 there is considerable evidence that lenders started to retreat from Mexico, but not of a stampede. On one hand, the country was able to borrow, through 16 syndicates, a (gross) figure of \$7.25 billion (see Table 5.5 for the most important, or Table B14). However, total net external indebtedness merely grew by \$1.57 billion (see Table B3), that is, the country already was facing (several) refusals to roll-over its debts, and was covering huge amounts in capital payments. Moreover, it was also unable to continue piling up debt by increasing short-term debt commitments; precisely the opposite, the country had a net short-term debt reduction of \$2.0 billion (see Figure 5.4 and Table B3). Considering the desperate situation the government was facing, it would be difficult to argue that this reduction was the result of a strategy that aimed to lengthen the maturity horizon (as the one followed during 1979), but rather that those that had lent were refusing to roll-over, and instead asking for, and getting, their money back. In other cases, banks were agreeing to grant a medium-term loan that in fact was merely a refinancing of a short-term one.

What was the attitude of the most important creditors? The fact that Mexico was able to continue obtaining medium-term syndicated loans (several jumbo loans included) would support the conclusion that the biggest lenders -those that should have had the most complete panorama on the possible prospects of the country- never expected that Mexico would default until just a few weeks before it happened. It can also be argued that some big banks felt hooked, and considered that deserting would effectively start a stampede that at the end would affect their exposure, and so fell in a sort-of defensive lending. This latter notion, however, runs against the idea that individual (or small group) efforts would effectively help, moreover when the government was doing little to correct the

³⁶ This kind of expectation, where banks anticipated that public resources from the IMF would bail them out, had recent historical precedents. See Chapters 4 and 6.

situation (see Chapter 3). Looking at the banks' participation in syndicated loans as managers, the evidence is at best mixed. Some of the top lenders *apparently* reduced their participation as syndicate leaders (Table 5.10), but evidence is far from conclusive. Banks deeply involved with Mexico, such as Citicorp and Morgan Guaranty Trust (both U.S. institutions) had markedly less participation. However, in the Citicorp case, it was not only leader, but also the agent of a \$2 billion jumbo for Pemex, signed in April 1982 (see Tables 5.8 and 5.12). Even greater wisdom (with no participation at all as managers during 1982) was shown by WestLB (West Germany), Bankers Trust (U.S.) and CIBC (Canada).

Table 5.10. The Top Managers of Syndicated Loans to Mexico^a, 1973-82
(number of participations in a syndicate as lead-manager or manager)

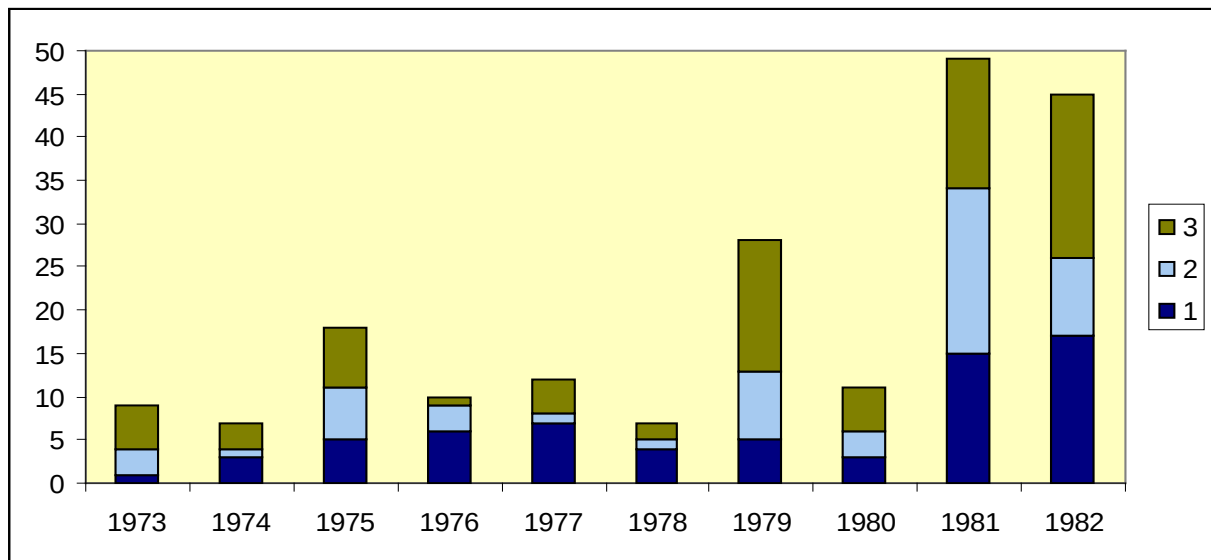
Bank	73	74	75	76	77	78	79	80	81	82	Total
Bank of America	0	3	4	2	2	3	3	2	6	3	28
Bank of Tokyo	1	0	0	0	3	5	9	2	4	4	28
Bank of Montreal	1	2	1	4	4	3	7	2	1	2	27
Citicorp / Citibank	0	0	2	4	2	4	4	4	5	2	27
INTERMEX	0	0	6	2	2	1	2	3	4	4	24
Chemical Bank	1	1	2	1	2	2	5	1	6	2	23
Chase Manhattan	0	1	2	3	3	3	2	1	4	2	21
Lloyds Bank	0	2	1	1	4	5	4	0	1	3	21
WestLB	0	2	2	0	4	2	5	3	3	0	21
Morgan Guaranty Trust	0	1	2	3	2	1	4	2	4	1	20
Royal Bank of Canada	0	3	3	2	2	4	3	2	0	1	20
Dai-Ichi Kangyo	1	1	0	0	0	2	2	2	6	5	19
IBJ	4	0	0	0	1	3	2	0	5	3	18
NatWest	0	0	0	0	2	5	2	4	3	2	18
CIBC	0	0	3	2	3	1	4	0	4	0	17
Crédit Lyonnais	1	0	1	0	0	1	3	5	5	1	17
Libra Bank	0	3	2	2	3	2	1	1	1	2	17
Mitsubishi Bank	0	0	0	0	1	4	4	1	6	1	17
Bankers Trust	0	1	2	2	2	2	3	1	3	0	16
Manufacturers Hanover	1	0	1	1	1	4	2	1	1	4	16
Toronto Dominion Bank	1	0	1	1	2	4	3	0	3	1	16
Bank of Nova Scotia	0	0	1	2	2	2	0	2	5	1	15
BNP	0	0	0	0	3	1	2	3	4	2	15
Sumitomo Bank	1	0	0	0	0	1	5	1	5	2	15
BANAMEX	0	0	1	1	2	1	2	2	3	2	14
Barclays Bank	0	0	2	1	2	1	2	1	4	1	14
LTCB	1	0	0	0	1	2	3	0	5	2	14
Société Générale	1	0	1	0	2	0	2	2	4	2	14
CSFB	1	2	3	1	0	0	1	1	3	1	13
Midland Bank	0	0	1	0	1	1	2	0	4	4	13
Deutsche Bank	0	0	1	1	1	2	4	1	1	1	12
Dresdner Bank	0	1	1	0	2	1	3	1	1	2	12
First Chicago	0	0	2	3	1	0	1	0	4	1	12
Sanwa Bank	0	1	0	0	0	4	3	0	2	2	12
Commerzbank	0	0	2	1	1	2	1	1	1	1	10
Grindlay Brandts	1	2	1	1	1	0	2	1	1	0	10
Mitsui Bank	0	0	0	0	0	3	0	2	2	3	10
Orion Bank	0	3	0	1	1	0	0	0	3	2	10
Taiyo Kobe Bank	1	1	0	0	0	0	1	0	5	2	10

a. Admittedly, 10 participations as manager of a syndicate is an arbitrary limit to define a bank as a "top" manager.
Source: Extracted from Table B17.

³⁷ That is, following the framework outlined in Chapter 2.

Looking at the other side of the spectrum an interesting picture emerges. At the bottom of Table B17 are those banks that were wealthy -or ambitious³⁸- enough to officiate as managers, but that in the 1973-82 decade just acted as such in very few occasions. Conventional wisdom would point out that if the big lenders were unaware in 1982 of the impending disaster, even less were the small ones. Looking at Figure 5.5, that indeed seems to have been the case: the yearly participation of banks that acted as managers in syndicated loans to Mexico from only one occasion to a maximum of three times in 1973-82. Participation is low at the beginning of each credit cycle (1973-74 and 1977-78) and it increases markedly at the end of it (1975-76 and 1981-82), though it must be pointed out that 1979 was also a year where participation rose considerably (at least partially explained by the huge number of loans, including many small-amount ones, negotiated that year –see Table B14).

Figure 5.5. Banks Participating as Managers in Syndicated Loans to Mexico, 1973-82^a



a. It is important to remember that Mexico had access to the capital markets until mid-1982. That fact at least partially explains the absolute fall with respect to 1981.

Source: Elaborated with data from Table B17.

Altogether, it seems that relatively small banks, or at least those relatively inexperienced in lending to Mexico, occupied at least partially the place of some of the big players that were retreating. Prominent among those that had a late enthusiasm for lending to Mexico, particularly during 1981-82, were several Japanese³⁹ and -the *nouveau riche* from the oil shocks- Arab banks (Table 5.11).⁴⁰

The turning point in the 1976-82 credit cycle was the \$2.5 billion jumbo loan signed on June 30, 1982. Ironically, it was the biggest loan ever received by Mexico until then. Though the spread was much higher (the triple in one tranche) than in recent loans, it was not extremely high by historical standards. On May 6, Bank of America (BoA) received the mandate to lead the syndicate. At first the

³⁸ As it has been detailed in the previous chapter, many banks were drawn into syndication because of the fees and commissions involved, that increased along with the place that the bank occupied in the echelon of the syndicate.

³⁹ The regulatory distortions that enticed the Japanese bank to lend short-term have already been described.

⁴⁰ Apparently, a situation not much different from any speculative boom, where the most experienced leave when it is near to its peak, their participation bought by unwise but ambitious late-entrants.

deal ran smoothly: BoA hoped to find 25 lead managers and soon found 27, each to underwrite \$92 million. The problems began when the loan entered syndication on May 26. In vain efforts to increase the selldown, the signing ceremony was postponed three times. Meanwhile, a \$1 billion bridging loan had to be secured pending completion of the jumbo. When the loan was finally signed in Mexico City on 30 June, the lead banks were left clutching the baby: they retained \$79 million of the \$92 million they had each underwritten⁴¹. Several banks that joined the syndicate only did so after personal appeals by the Finance Minister and his deputies and, under pressure from the government, U.S. branches of Mexican banks entered the fray. Moreover, some banks that entered the syndicate were merely refinancing short-term debt and turning it into a medium-term one (the jumbo offered higher spreads). Of the total, around half was for refinancing short-term debt (Caplan 1982, 39; Euromoney 1982d; U.S. Federal Reserve 1982a, September, 606-607; Kraft 1984, 37).

Table 5.11. Japanese and Arab Managers in Syndicated Loans to Mexico, 1973-82

Bank	1973-76 ^a	1977	1978	1979	1980	1981	1982	Total
Bank of Tokyo	1	3	5	9	2	4	4	28
Dai-Ichi Kangyo	2	0	2	2	2	6	5	19
IBJ	4	1	3	2	0	5	3	18
Mitsubishi Bank	0	1	4	4	1	6	1	17
Sumitomo Bank	1	0	1	5	1	5	2	15
LTCB	1	1	2	3	0	5	2	14
Sanwa Bank	1	0	4	3	0	2	2	12
Mitsui Bank	0	0	3	0	2	2	3	10
Taiyo Kobe Bank	2	0	0	1	0	5	2	10
Fuji Bank	1	0	2	1	0	3	1	8
Nippon Credit Bank	0	1	0	3	1	2	1	8
Tokai Bank	0	0	2	3	0	3	0	8
Daiwa Bank	0	0	1	2	0	2	1	6
Kyowa Bank	0	0	1	1	0	3	0	5
Saitama Bank	0	0	1	2	0	2	0	5
Yasuda Trust & Banking	0	0	1	1	0	2	1	5
Associated Japanese Bank (Int.)	0	0	0	0	1	1	1	3
Bank of Yokohama	0	0	1	0	0	1	1	3
Hokkaido Takushoku Bank	0	0	0	0	0	2	1	3
Others ^b	1	0	1	0	0	3	2	7
ABC	0	0	0	0	0	3	5	8
UBAF	2	0	1	0	0	2	1	6
Gulf Int. Bank	0	0	0	0	1	2	2	5
ARLABANK	0	0	0	0	1	1	2	4
KFTCIC	1	0	0	0	0	0	2	3
Saudi National Commercial Bank	1	0	0	0	0	1	1	3
Others ^c	3	1	0	1	0	4	2	11

a. Total number of participations during 1973-76.

b. A total of five banks that were managers in two or one syndicates.

c. A total of eight banks that were managers in two or one syndicates.

Source: Extracted from Table B17.

The contrast with the tableau that had prevailed until just three months before could not have been greater, when Pemex was able to effortlessly borrow \$2 billion in April. With Citibank as agent, the

⁴¹ That is, they were able to selldown to the providers of the syndicate 14% of the amount they had underwrote. A good

29 banks that acted as lead managers⁴² initially offered \$100 million apiece. With offerings that almost totalled \$3 billion, the banks initially reduced their initial underwriting to \$69 million, and with the selldown to the providers each reduced their final contribution to the syndicate to \$46 million (SHCP 1982b, first quarter, 13-14). The lack of enthusiasm of the banks for Mexico by mid-1982 is evident even in the structure of the \$2.5 billion jumbo, where the relative number of lenders that were mere providers with respect to that of managers is much lower than with respect to previous jumbo loans (Table 5.12).

Table 5.12. Bank Participation in the Mexican Jumbo Loans^a, 1977-82
(million dollars)

Borrower	Date	Amount	Agent ^b	Managers ^c	Co-Managers	Providers	Total
UMS	11.77	\$1200	Morgan	33	12	74	119
Pemex	05.78	\$1000	BoA / M.H. ^d	20	11	33	64
Pemex	09.79	\$2500	BoA	22	15	28	55
Pemex	06.81	\$4000 ^e	BoA	20	19	43	82
Banobras	08.81	\$1000	BoA	35	17	56	108
Pemex	04.82	\$2000	Citibank	35	14	73	132
Nafinsa	05.82	\$1200	M.H.	31	7	58	96
UMS	06.82	\$2500	BoA	35	4	36	75

a. Loans of at least one billion dollars. These were all the jumbo loans extended to Mexico until 1982. These were all the jumbo loans extended to Mexico until 1982.

b. Morgan is Morgan Guaranty Trust Co. of New York; BoA is Bank of America, and M.H. is Manufacturers Hanover.

c. In some loans it includes Lead Managers, Co-Lead Managers and Managers.

d. Co-agents.

e. The \$2.5 billion of the September 1979 credit were increased to \$4 billion.

Source: Constructed with the information from the respective Tombstones of the first seven jumbo-loans (all included in Appendix E), information from the Euromoney Syndication Service weekly fact sheet (July 2, 1982, 10) for the June 1982 \$2.5bn loan.

If the June 1982 jumbo represented the last, but powerful, jab of Mexico to the Eurosyndicated markets, there would also be a similar operation in the Eurobond market. In July a \$175 million bond was issued, paying a record-breaking coupon: 18.5%. Another feature to attract buyers was that it gave them a three-year call option after three years, while it gave the Mexican government a similar option after six years.⁴³ Merrill Lynch was the lead manager, that was a success as it was increased firstly from \$100 million to \$150 million, and then again to \$175 million. Each of the 15 co-managers underwrote \$6 million.

As the \$2.5 billion jumbo was the largest (and last) syndicated loan, the \$175 million Eurobond was also the largest, and also marked the closure of that market for Mexican borrowers.⁴⁴ From the first days of July, the Euromarkets door became virtually shut for Mexico. The great difficulties to syndicate the June \$2.5 billion jumbo indicated that to construct a similar effort would have to wait a long time. Meanwhile, Mexico had to show that it could survive without additional loans. In a certain way, it was like

selldown was considered to be above 50%.

⁴² In Table 5.11 a number of 35 managers appear, because there were 29 lead-managers and six managers.

⁴³ A call option means that, after a certain period of time (agreed when the bond was originally issued), borrower (lenders) have the right to offer (ask) a new interest rate on the bond or redeem (ask for payment for) it.

⁴⁴ A few days later, Telmex issued a \$50 million bond. It was the last incursion of a Mexican borrower in the Eurobond market (see Figure 5.12). The respective Tombstones for both eurobonds are included in Appendix E.

a test for the country, that it quickly failed. As Miguel Mancera, recently appointed Director General of the Bank of Mexico, remarked in mid-1982:

“We have to think of ourselves (Mexico) as a bank in which debt will always be large in relation to its capital. This is all right, *provided the bank can replace withdrawals by new deposits*” (Quote in Caplan 1982, 39; emphasis added).

An important difference with Mancera's simile was that the depositors (lenders) in the bank (Mexico) were unable, because of the rules of the game, to go to the bank whenever they wanted to withdraw their deposits, as those deposits had specific dates when the money would be withdrawn (see Chapter 2). Only on that date the depositor would ask for its money bank, or agree to deposit it again after new conditions had been agreed (the loan was rolled-over). The lenders that were unwilling to extend additional loans had no option but to wait and hope that they would arrive to the front of the queue on time to cash their loan. While the country kept paying there was no reason for lenders to (openly) question its creditworthiness. In the few weeks between the last big incursions of Mexico in the Euromarkets (June-July) and a virtual default declaration (August), there is no solid evidence that creditors knew what was about to come. Some bankers even indicated during July that the country would tap the markets again by raising the spread offered for a syndicated loan (for example to 1.750% above LIBOR⁴⁵), or considered that Mexico would not need to reschedule. However, the pessimists would soon be proved right:

Those who predict the worst believe Mexico's greatest vulnerability is its short-term debt. If banks, for whatever reason, cease to roll over the \$9 to \$10 billion which matures each year, Mexico will flop, because the reserves of about \$3 billion are too meagre to repay the debt. Said one banker: “No-one's talking openly about rescheduling but everyone's thinking about it” (Euromoney 1982d, 300).

Elections took place in early July. With the peso under heavy attack, another devaluation was avoided for several weeks, but exhausting the reserves, including the proceeds of the jumbo loan. On August 4 yet another currency swap, for \$700 million, with the Federal Reserve had to be arranged, but for longer than 24 hours, and conditioned on the government entering discussions with the IMF (Kraft 1984, 8). On August 6, a two-tier exchange rate system was set up. On August 12 the so-called Mexdollar deposits were made payable only in pesos and the foreign exchange markets were closed (see Chapter 3). A few days later the international debt crisis had begun (see Chapter 6).

5.4. LENDING CONDITIONS IN THE 1973-76 AND 1977-82 CYCLES

Mexican public borrowers experienced a virtually uninterrupted borrowing spree from the Euromarkets during nine years, with two brief, involuntary, interludes. One, the Herstatt crisis during the third quarter of 1974, affected many other sovereign borrowers. The other was of its own making: the balance of payments' crisis that begun in August 1976, and for which the markets were closed for the country for several months (that crisis will be studied in detail in Chapter 6).

The Mexican experience provides, then, material to establish the determinants of the conditions that sovereign borrowers faced through time in the international capital markets. One of the main conclusions of Chapter 4 was that those conditions were not tailored by lenders for each borrower, but rather that, with small variants, the lending conditions faced by many government-guaranteed borrowers were similar, and evolved together through time. The particular case of Mexico can provide elements to appraise the merits of that conclusion. A plain look at the evolution of the spreads paid by Mexican borrowers through time (Figure 5.6) seems to confirm that inference: domestic shocks (positive or negative) do not have any apparent effect on their evolution:

- On the last day of August 1976, a balance of payments' crisis erupts with a maxi-devaluation of the peso. A few months later, the corroboration that the oil wealth of the country was much bigger than previously thought brings again abundant loans to Mexico. If any, the effect of both events on the spread should have been negative and positive, respectively. Apparently there is none;
- At the end of June 1978, the adjustment programme under the guidance of the IMF is abandoned. If any, there should have been a negative impact on the spread. On the contrary, the spreads continue a striking decline that had started the previous January.
- In November 1979, oil prices soared, and continue to climb throughout 1980. For an important oil-exporting country as Mexico, a decline in spreads would be expected.⁴⁶ Spreads continued to bottom at the low limit established the previous March, 0.500%, though a few loans got lower spreads in the last months of 1980.
- A new maxi-devaluation takes place in February 1982, and in the next few months the economy turns for the worse markedly. An upward trend in the spreads had started before, in December 1981, and a real jump is only observed on the spread paid by the *last* loan granted to Mexico (the \$2.5 billion jumbo) at the end of June.

It can be argued, however, that the steep fall in the spreads that begins since January 1978 is result of the, already described, impressive debt management followed during the 1977-80 period, and that the markets (as it is reflected in the perceived country risk of Mexico, see Table 5.6) extended that impression until 1981. That may have been the case, with the perceived debt management overriding domestic factors. That reasoning would also explain the increase in the spreads observed in 1974-76, arguing that the markets perceived the explosive and disordered indebtedness by Mexico. An alternative

⁴⁵ The weighted spread for the \$2.5 billion jumbo had been 1.333%. See Figure 5.11 and Table B14.

explanation, however, is that presented in Chapter 4: the evolution of the spreads is explained by international factors, and therefore the spreads of *all* the sovereign borrowers follow the same trend. Under that perspective, the increase in the Mexican spreads in 1974-76 would have been the result of the Herstatt crisis, and the fall observed in 1978-81 a mere reflection to what was happening to the spreads of other countries. That indeed seems to be the case (Figure 5.7). However, a detailed look at the data is necessary to try to reach any conclusion on what explanation has stronger merits.

On the other hand, a mere look at the distribution of loans to Mexican borrowers through time according to their maturity (Figure 5.8) shows that there is not even remotely a pattern similar to that presented by Figure 5.6. As it was ascertained in the previous chapter, maturity was not such a relevant issue to negotiate for lenders and borrowers⁴⁷, as the possibility of roll-overing the credit was an alternative usually open, and so understood by lenders and borrowers. There is clearly a *ceiling* in the loans' maturity, but no *pattern* under it.

5.4.1. THE EVOLUTION OF LENDING CONDITIONS UP TO 1976

Information on Mexican (and other countries) borrowing in the Euromarkets is at best sketchy before 1973, when it started to be collected by the World Bank. However, that information available invariably points out that spreads had been falling for Mexican borrowers during the late 1960s and early 1970s. The survey conducted by Sánchez Aguilar (1973, Tables 46-47) among U.S. banks provides information about the spreads they charged above Prime and LIBOR rates on loans to Mexico. Its data, plus the scarce information provided by the government (see Table B14), shows that spreads continued their decline until 1973 (Figures 5.6 and 5.9). Though spreads seemed to have bottomed at the end of 1973, and even a small increase was observed in the first months of 1974 (arguably, that increase takes place because of the first oil shock, see Figure 5.6), there is a considerable jump during the second half of that year, that can be clearly associated to the Herstatt crisis (Figures 5.6, 5.9, and Table 5.13). Spreads not only broke the 1% barrier, but shot much further upwards, and remained above that level for several years. A similar deterioration in the terms of borrowing is observed in the maturity of the loans. Again according to the information compiled by Sánchez Aguilar (1973, Table 41), the loans from commercial banks had a maximum maturity of six years from 1960 to 1968; an eight-year maturity is obtained for the first time in 1969.⁴⁸ The ten-year barrier is reached in December 1971 with the \$100 million loan negotiated by CFE, Nafinsa, and Pemex. During 1973 several barriers would be broken, and during the last third of the year several 15-year credits (albeit for small amounts) were negotiated, all with syndicates headed by Japanese banks (Table 5.14). The Herstatt collapse also brings a halt to that trend: the last ten-year credit that the country would receive for several years is signed a week before that crisis exploded. After that, credits in the 3-7 year range would be the norm (see Figures 5.8 and 5.10). The stunning deterioration in lending conditions is evident comparing the 1973 and 1975 average spreads and maturities obtained by Mexico (Table 5.13).

⁴⁶ When the first oil shock started in October 1973, Mexico was practically self-sufficient in oil and a marginal importer (see Table 3.1); no positive or negative impact in particular would be expected, and so it is not included in Figure 5.6.

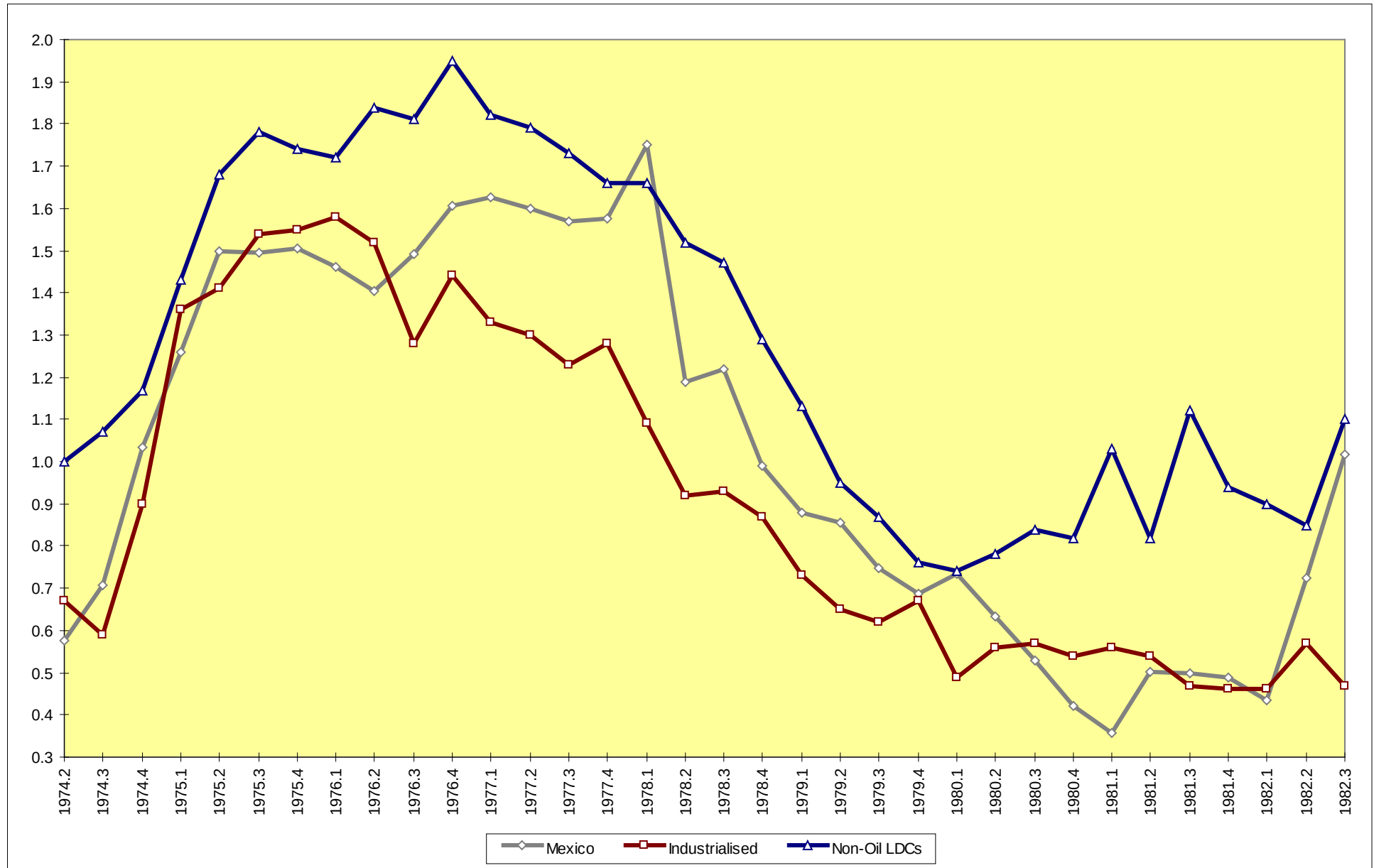
⁴⁷ Though, as it was also mentioned, there were exceptions, as were the cases of Brazil and Venezuela.

⁴⁸ Sánchez Aguilar's survey is limited to a certain number of U.S. banks, but nevertheless provides at least some inkling of the direction of lending terms.

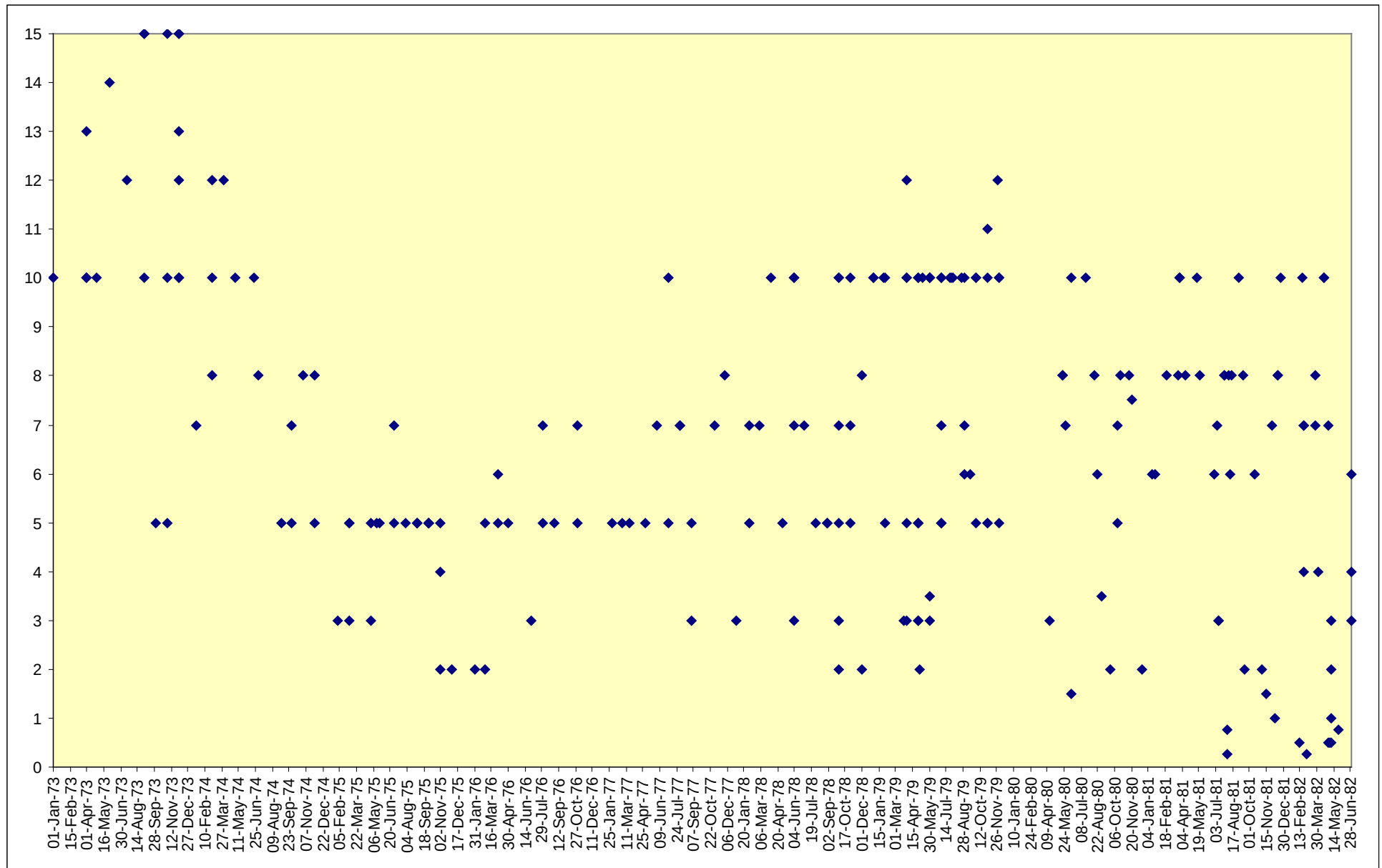
Figure 5.6. Spreads Above LIBOR on Eurocurrency Loans to Mexico
(percentage points)



Source: Elaborated with data from Table B14 and Chapters 3 and 4.

Figure 5.7. Quarterly Average Spreads Above LIBOR on Eurocurrency Loans
(percentage points)

Source: Elaborated with data from Table B18.

Figure 5.8. Maturity of Eurocurrency Loans to Mexico
(years)

Source: Elaborated with data from Table B14.

Table 5.13. Mexican Borrowing in the Euromarkets: Developments and Milestones^a, 1973-76

1973
+ Aggressive borrowing from the Euromarkets begins in July. A record \$300 million loan to BANOBRAS carries an average spread of 0.656% and a maturity of 12 years.
+ A loan obtained by PEMEX in September attains a 15-year maturity.
+ Average spread during the year: 0.666%; average maturity: 11.72 years.
1974
+ A credit line previously agreed by the Bank of Mexico in January by the UMS. The full amount of \$500 million (a record) is drawn.
+ Spreads increase markedly throughout the year: the 1% barrier is broken with a loan to BANOBRAS in March; 1.125% is agreed in September by BANAGRO; the 1.250% mark is reached by BANOBRAS in October, and the UMS borrows at 1.375% in December. Maturities collapse during the second semester. The last 10-year loan is granted to BANOBRAS in June, while the first of several five-year loans is signed in September by BANAGRO. Amounts borrowed also fall noticeably after June. Three loans reached the \$100 million mark in each month of the second quarter of the year. Only the December UMS loan surpassed that amount.
+ Average spread during the year: 0.894%; average maturity: 7.76 years.
1975
+ Conditions continue to tighten. From the beginning of the year the 1.500% spread dominates the borrowing, while in September FERTICA agrees to pay 1.625%, though at the year's end some loans return to a spread of 1.250%, but with maturities of 2 and 4 years.
+ Average spread during the year: 1.490%; average maturity: 4.75 years.
1976
+ Maturities and spreads apparently reach a ceiling. CFE, in March, is the first to pay 1.750%.
+ The UMS borrows a record \$800 million in November, with one segment of the loan paying 1.750%, and the other half 1.500%. After that loan, the markets close for Mexico. For the first time in several years, there is no borrowing during December.
+ Average spread during the year: 1.532%; average maturity: 5.36 years.

a. Only the syndicated loans where both the spread and the maturity are available were used to build this table. All the spreads mentioned are above LIBOR.

Source: Constructed with data from Table B14.

Table 5.14. Evolution in Credits' Maturity to Mexico, 1971-73^a

Borrower	Date	Amount	Term	Lead Management Group
NAFINSA and BANOBRAS	19.04.71	\$100.0	8	N.M. Rothschild & Sons; Rothschild Intercontinental Bank; BANCOMER; BANAMEX.
CFE, PEMEX And NAFINSA	20.12.71	\$120.0	10	Bank of America
NAFINSA	04.73	\$35.0	13	Kredietbank S.A. Luxembourgeoise.
CFE	06.73	\$25.0	14	IBJ.
PEMEX	09.73	\$50.0	15	Banque Européenne de Tokyo; Bank of Tokyo; IBJ.
NAFINSA	09.73	\$10.0	15	IBJ.
PEMEX	11.73	\$15.0	15	Sumitomo Bank.
CFE	12.73	\$25.0	15	IBJ.
CFE	12.73	\$25.0	15	Taiyo Kobe Bank; Overseas Investors Inc.

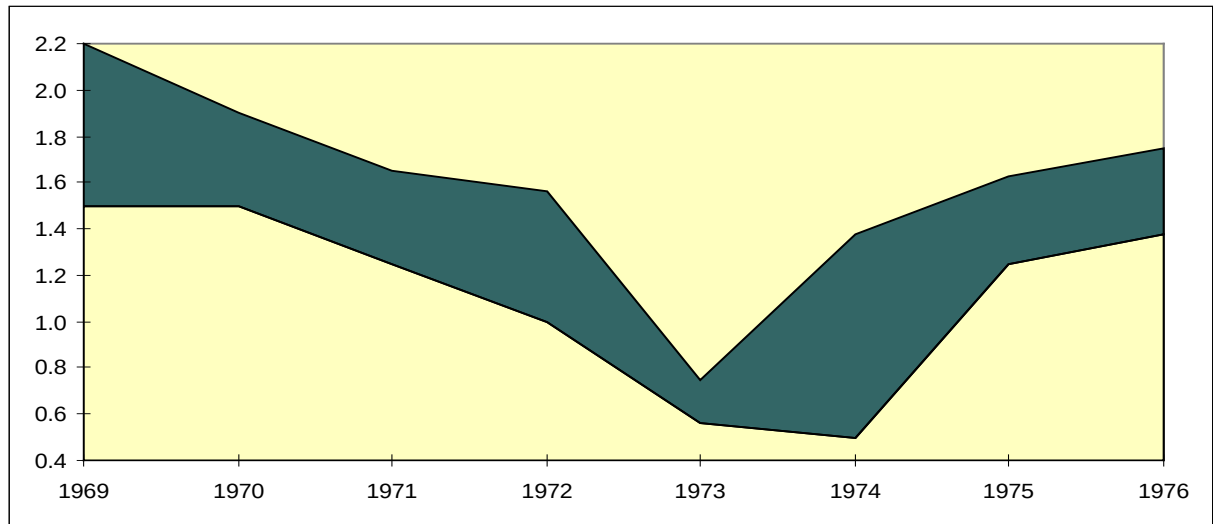
a. Includes credits that obtained a maturity not accomplished previously (except the first one, that is the first credit registered in Table B14), and all the 15-year credits.

Source: Extracted from Table B14.

Can the deterioration in borrowing terms be ascribed so fully to the Herstatt collapse? As it has been pointed out, Mexico started an aggressive borrowing in the Euromarkets in mid-1973, and it can be argued that after a year the markets had started to worry about that trend. That explanation,

however, does not check with the huge amounts that the country would borrow in 1975-76. On the other hand, the Herstatt explanation fully fits with the collapse in borrowing that the country faced during the third quarter of 1974 (see Table 5.4). Moreover, as it has been detailed in the previous chapter, the deterioration that *all* countries encountered after that crisis, in spreads, maturities *and* amounts borrowed is quite evident (see Table 4.9 and Figure 4.15).

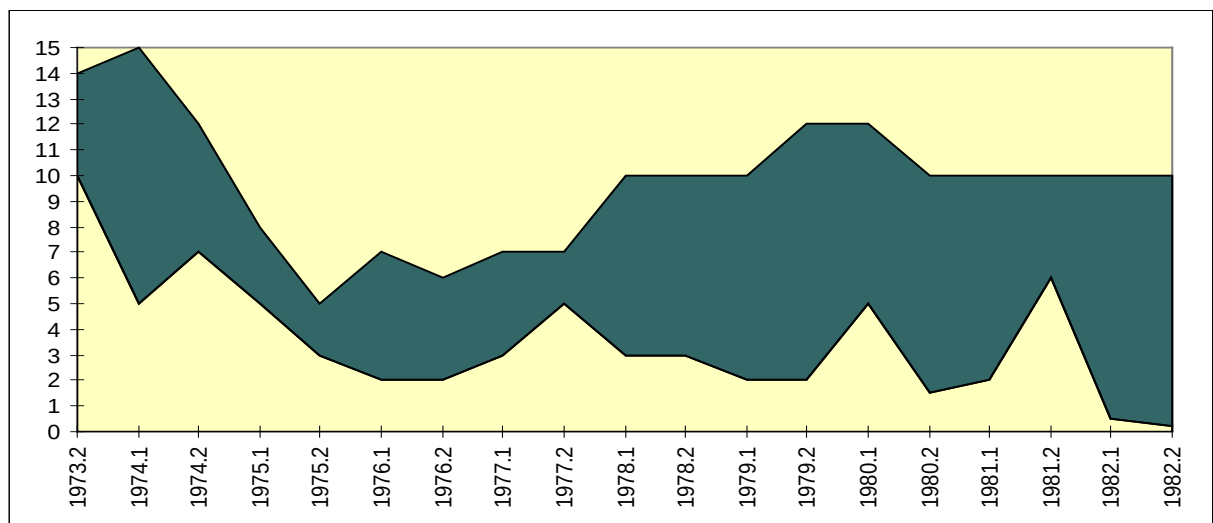
Figure 5.9. Scope of Spreads on Publicised Euroloans for Mexico, 1969-76^a
(percentage points above LIBOR)



a. Information for 1969 to 1972 comes from Sánchez Aguilar (1973). His survey was limited to U.S. banks. However, in that period many lenders in the Euromarkets were really Euro-branches of U.S. banks, limited to lend directly by the Foreign Credit Restraint Program (described in the previous chapter).

Source: Elaborated with data from Sánchez Aguilar (1973, Table 47) and Table B14.

Figure 5.10. Scope of Maturity of the Publicised Euroloans for Mexico, 1973-82
(years)



Source: Elaborated with data from Table B14.

Looking at Figure 5.7 it seems that Mexican spreads move along with those of other countries, particularly following the same trend than the spread covered by the group of industrialised countries. For the two groups of countries and Mexico, spreads virtually *double* during the three-year period.

It can be ascertained that Herstatt had a definite influence in the deterioration of the lending terms faced by Mexico and other countries after June 1974; that worsening had little or nothing to do with domestic factors. In fact, for almost a year (in 1975-76) the spreads obtained by Mexican borrowers were better than those paid by industrialised countries on their loans. However, stronger evidence is needed to establish the relationship between the spreads obtained by Mexico and other countries.⁴⁹

5.4.2. THE EVOLUTION OF LENDING CONDITIONS, 1977-82

Mexico returned triumphantly to the Euromarkets in March 1977, but lending conditions (spreads and maturities) were on average the harshest since 1973. However, these conditions were closely related to those that prevailed for other countries. As it has been described in Chapter 4, conditions started to soften markedly in 1978 (see Table 4.11), and Mexico went along with the general trend (see Figure 5.7). As detailed in the previous chapter, a strong competition developed between the banks in the Euromarkets, with aggressive pricing from non-U.S. institutions. Again, Mexico is a good example: the spreads' dive observed after 1978, that would continue until the end of 1981, was spearheaded, without exception, by non-U.S. banks, particularly European and Japanese, sometimes accompanied by Canadian and Latin American lenders (Table 5.15). While spreads reached historical lows, maturities lengthened, but would never reach the pre-Herstatt levels (15-year loans). The maximum Mexican borrowers obtained was 12 years, in 1979-80 (see Figures 5.8 and 5.10). However, as explained in Chapter 4, the key variable in a loan negotiation was the spread. As already described, Mexico fully exploited those better conditions (Table 5.16) to reduce the cost and extend the maturity of its external debt.

Table 5.15. The Plunge of Spreads Paid by Mexican Borrowers, 1978-81^a

Borrower	Date	Amount	Spread	Lead Management Group ^b
CFE	01.78	\$20.0	1.375	The Inter-Alpha Group ^c
PEMEX	02.78	\$65.0	1.000	Bank of Tokyo; Sumitomo Bank; Mitsui Bank; Mitsubishi; LTCB; Dai-Ichi Kangyo Bank.
PEMEX	09.78	\$50.0	0.750	Commerzbank
UMS	10.78	\$100.0	0.625	IBJ
PEMEX	03.79	\$240.0	0.500	BANAMEX; Banco do Brasil; Bank of Montreal; Bank of Tokyo Trust Co.; Crédit Lyonnais; Dai-Ichi Kangyo Bank; Midland Bank; Sanwa Int. Finance.
UMS	05.79	\$500.0	0.375	Société Générale
PEMEX ^d	25.09.80	\$500.0	0.250	Société Générale; BNP; Crédit Lyonnais; PARIBAS; CCF; Banque Française du Commerce Extérieur
PEMEX	16.10.81	\$200.0	0.125	European Banking Co.; Banco Exterior de España; County Bank; Midland Bank; Tokyo Finance (Asia); European American Bank & Trust Co.; Creditanstalt-Banverein.

a. Spread of the first publicised loan that broke downwards the "floor" established by previous loans.

b. Banks that were lead-managers, managers, or the sole provider of the loan.

c. Consortium constituted by the Kredietbank (Belgium), Privatbanken (Denmark), CCF (France), Berliner Handelsgesellschaft-Frankfurter Bank (Germany), Banco Ambrosiano (Italy), NMB (Netherlands), and Williams & Glyn's (U.K.).

d. A loan given to BANPESCA in the same month, for \$15 million, also carried that spread, but it is not possible to know which one was first, so the loan for the biggest amount is included.

Source: Information extracted from Table B14.

⁴⁹ That relationship will be explored in great detail in sections 5.5 and 5.6.

Table 5.16. Mexican Borrowing in the Euromarkets: Developments and Milestones^a, 1977-82

1977
+ Other than a small amount, equivalent to \$19.8 million, borrowed in February, the markets that had been closed since November 1976 become open with a loan of \$350 million to PEMEX, on March 21. + For the first time, loans are denominated in a currency different from the U.S. dollar. In February BANOBRAS borrows in Swiss francs; BANRURAL would follow in July with deutschemarks. + Maturities start to lengthen: in July NAFINSA obtains a 10-year loan. On the other hand, a tranche on a small loan to PIPSA, in August, pays 1.875%. + In November the UMS received the first jumbo loan: a record \$1.2 billion. + Average spread during the year: 1.628%; average maturity: 6.88 years.
1978
+ Conditions ease notably from the beginning of the year. PEMEX borrows on a 1% spread in February, and on 0.750% in September; the UMS obtains 0.625% in November. Several 10-year loans are negotiated, the first of the year is a \$1 billion jumbo to PEMEX in April. + Average spread during the year: 1.069%; average maturity: 8.00 years.
1979
+ Terms continue their favourable trend: there is one with a spread of 0.375% (to the UMS in May), three loans with 0.500%, and two 12-year loans obtained by CFE in March and November. + In September PEMEX borrows a record \$2.5 billion -a revolving six-month credit with a 0.500% spread over the bankers' acceptances rate, available for six years. + Average spread during the year: 0.705%; average maturity: 7.68 years.
1980
+ Mexican borrowers are voluntarily absent from the markets during the first quarter. + Spreads continue to decline, with several loans paying 0.250%, the first obtained by PEMEX in September. Maturities shorten, however, with the maximum in 10 years. A loan with a split spread, the first of many, is launched by BANCOMEXT in October: lenders can choose between 0.500% above LIBOR or 0.375% above the Prime rate. The Prime option aims to attract regional U.S. banks. + Average spread during the year: 0.435%; average maturity: 6.18 years.
1981
+ In June, PEMEX's revolving-credit of \$2.5 billion is increased to a record \$4.0 billion. However, a few months later, a Pemex offer has to be cut, and other shelved, because of lack of interest. + While spreads and maturities have bottomed, two loans in August (for CONASUPO and PEMEX) have maturities inferior to a year, and PEMEX obtains a 0.125% spread, six-year loan in October. + Average spread during the year: 0.476%; average maturity: 6.28 years.
1982
+ Conditions tighten considerably. The 0.875% spread, not paid since the end of 1979, comes back in March with a loan to BANRURAL, while other three loans have a maturity inferior to a year. + In June the UMS receives the biggest jumbo loan in its history: \$2.5 billion, but with spreads of 1 and 1.500% percent in each of its two tranches, that carry three and 6-year maturities, respectively. + Average spread during the first-half of the year: 0.852%; average maturity: 4.03 years.

a. Evolution on spreads, maturities, and amounts. Only syndicates where both the spread and maturity are available are included. All spreads are above LIBOR unless otherwise stated. 1982 includes developments until June.

Source: Constructed from data in Table B14.

In 1980 Mexico would reach the peak of its creditworthiness (see Table 5.6), with its loans carrying spreads only comparable to those paid by prime customers in industrialised countries. The situation, however, started to deteriorate in 1981, when the indebtedness process became explosive. At the end of that year signs of "congestion" of Mexican paper appeared in the markets: after a long record of smoothly run borrowing operations, Pemex had to shelve a proposed \$200 million syndicated loan,

and cut another one from \$500 to \$200 million. Apparently this happened because just the previous June, a syndicate had increased a revolving credit for the company from \$2.5 to \$4.0 billion. On the other hand, a sterling facility acceptance, the biggest ever handled in the City of London, was a huge success, and increased from £200 million to £365 million to accommodate the demand of over 50 banks (Asheshov 1981a, 75; Euromoney 1981b, 198).

However, borrowing by other public enterprises faced no obstacles: a \$400 million loan for CFE had to be increased to \$425 million, and just a month before, in May, a credit for BANCOMEXT had also to be increased from \$350 to \$550 million to accommodate excessive demand.⁵⁰ A possible explanation was that lenders clearly differentiated between borrowers, even when the sovereign guarantee was the same: there was excessive supply of the petroleum company paper in the markets, while that was not the case with the electricity company or the Eximbank.⁵¹ Another explanation, that may be complementary, was that there was a clear differentiation of the instruments sought by those with funds to lend, thus the flop of a Pemex offering in dollars, and the outstanding success of the one in British pounds. Whatever the reasons, the Pemex setbacks were the first clear reversals encountered by Mexico in its borrowing process. Probably, along with the perception that Mexico had substantially increased its borrowing, they marked the beginning of the deterioration in the lending conditions (Figure 5.11): in December 1981, the 0.625% and 0.750% spreads appear again with loans to Nafinsa, the highest since mid-1980. Loans with the 0.500% spread -virtually the norm from August 1980 to November 1981- became rare. Moreover, maturities shortened notably: some 10-year loans are still obtained, some important deals have strikingly short maturities. Conasupo agrees in April 1982 to borrow \$103 million for only six months, while a month later Pemex borrows \$400 million for nine months; a few weeks before Nafinsa had received a jumbo loan, \$1.2 billion, but with an average maturity of only two years. It is only until the end, with the \$2.5 billion jumbo, that the spread skyrockets above the 1% barrier (to 1.333%). And even the marked increase in the spreads to Mexico may only be partially attributed to the economy's deterioration and its obvious need for loans, and again be result of a generalised phenomenon. Exactly during the same time, June 1982, Venezuelan negotiators were stupefied when told by the organisers of a \$2 billion jumbo loan that the spread would need to be 1.125% above LIBOR to be successful, and a seven-year maturity. Just two months before, the country had been able to borrow \$600 million, paying 0.625% for an eight-year tranche. Venezuela rejected the terms, and the deal collapsed. A few months later, after the Mexican virtual default, the country was unable to negotiate a similar deal at any price (McGil 1982, 123-128). During the second quarter of 1982, spreads were in levels similar to those paid in the first months of 1979; even with that worsening of costs, Mexico was paying for its borrowing spreads between those covered by industrialised countries and non-oil LDCs (see Figure 5.7). Incursions in the eurobond market show also a clear increase in the coupons offered. The last three bonds issues, two in July and one at the beginning of August, offered above 18 percent per annum (Figure 5.12).

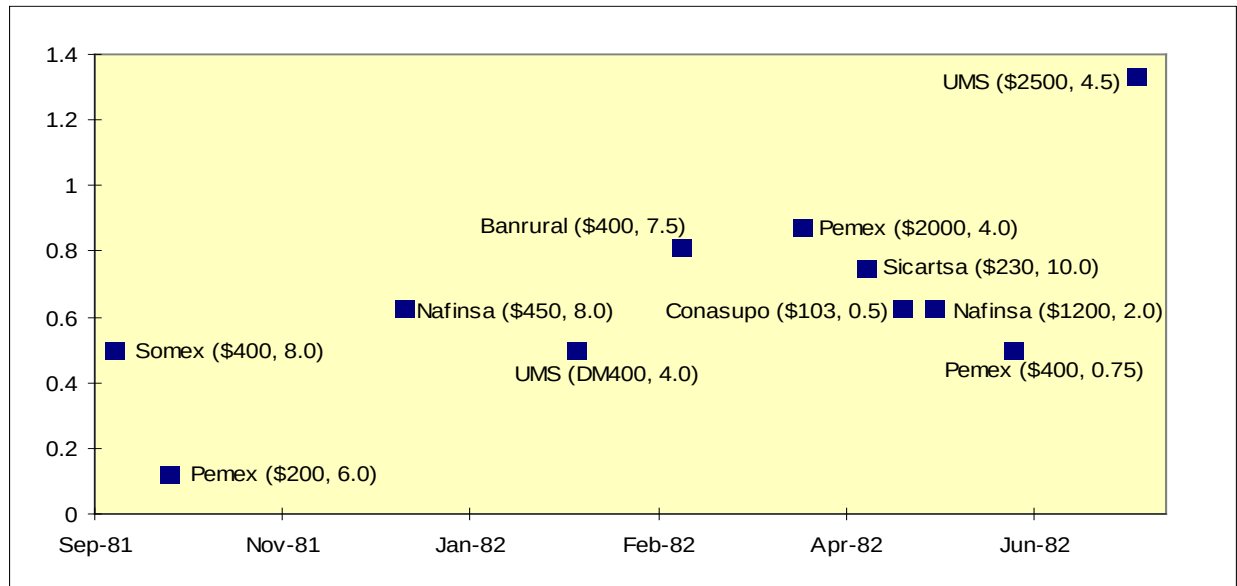
Are spreads moved by domestic or international factors? The evidence points that both have influence. To explore further the issue, and determine the weight of both elements, the spread

⁵⁰ SHCP (1981b, second quarter, 8-9; third quarter, 9-10). See also Euromoney (1981b, 198).

⁵¹ This apparent contradiction will be explored in the following section.

movements and differentials in two different groups will be explored: between different Mexican borrowers, and between Mexico and other sovereign borrowers.

Figure 5.11. Terms of Eurosyndicated Loans, 1981-1982^a
(spread, amount, and maturity)



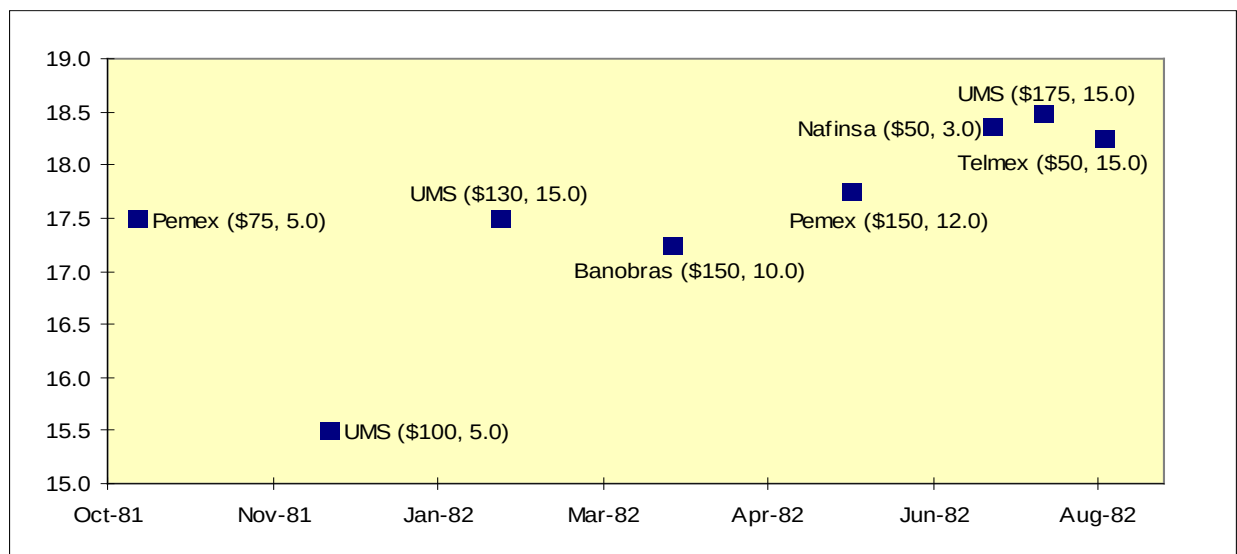
Note 1: Some of the loans were entirely, or had tranches, paying spreads above the U.S. PRIME rate. This was "converted" to LIBOR by adding to those spreads 250 basis points (the usual difference between the two spreads observed in virtually all the Mexican loans).

Note 2: The Nafinsa loan was composed by \$200 million and SDR200 million (total equivalent to \$450 million).

a. Last syndicated loans of at least \$100 million received by Mexico. The official name of the borrower goes before the bracket. Spread of the loan (in percentage points above LIBOR) in the vertical axis; amount of the loan in millions of the respective currency is the first item in the bracket, the maturity of the loan (in years) the second.

Source: Elaborated with data from Table B14.

Figure 5.12. Terms of Eurobond Loans, 1981-1982^a
(coupon^b, amount, and maturity)



a. Last eurobonds issued by Mexico. The official name of the sovereign borrower goes before the bracket. The Bond's coupon (in percentage points) in the vertical axis; amount of the loan in million dollars is the first item in the bracket, and the maturity of the loan (in years) the second.

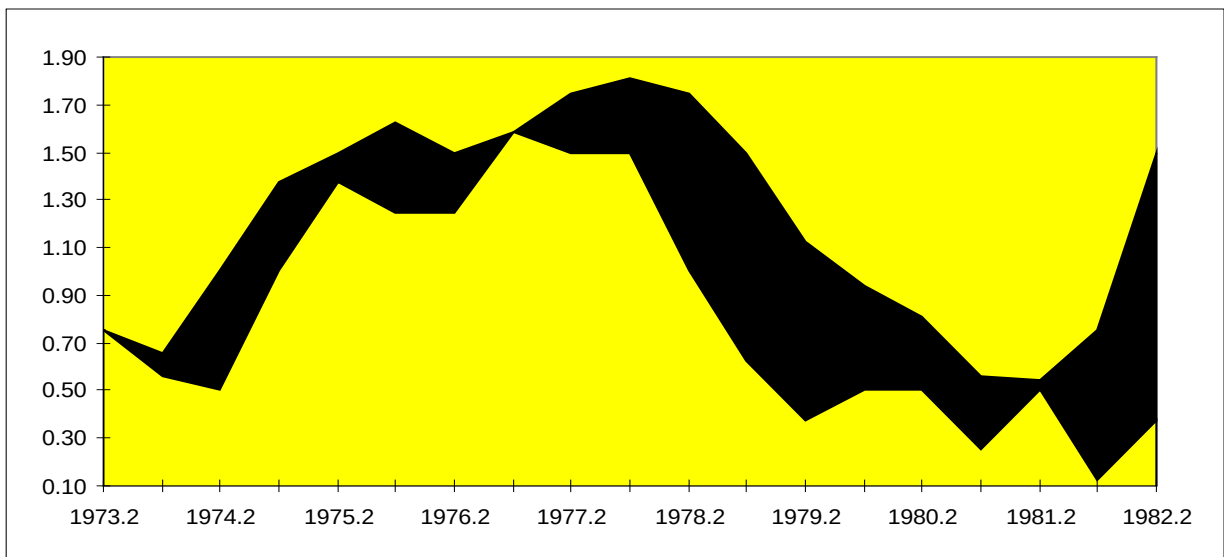
b. Only eurobonds in dollars are included in order to make coupons comparable. Coupons are presented instead of yields because not all the information on the issue price of the bonds is available. However, in four of the five bonds where that information exists the issue price was 100%, and in the only exception the price was 99.65%, so in any case the coupons are virtually the same than the initial yield.

Source: Elaborated with data from Table B15.

5.4.3. SPREADS TO DIFFERENT MEXICAN BORROWERS

Conventional wisdom asserts that the lending conditions that a country encounters when borrowing are determined by its perceived creditworthiness. The conclusions of Chapter 4 point to quite a different direction: the determination of the respective spread depended, among other factors, on the spread paid by other countries. But if there were no great differences between countries, then it would be said that there would be even less, or virtually none, for borrowers with *exactly the same sovereign guarantee*, that is, for public borrowers from the same country. However, the data on Mexican borrowing rejects that view. Figure 5.13 and Table 5.17 present the half-yearly evolution of the spreads obtained in syndicated loans during 1973-82 by public borrowers.⁵² The band widens or narrows in some periods, but its broadness is surprising, particularly in 1978-80 and the first semester of 1982, when it is considered that *all* the loan recipients were Mexican public borrowers. That gap (sometimes above the 0.500% barrier) could be explained, following conventional wisdom, as a reflection of the risk perception of the markets regarding the particular borrower. That would agree with the perspective of several analysts that, for example, a financially sound public enterprise would be able to borrow, even if the central government (that is, its official owner) was facing a very different situation.⁵³

Figure 5.13. Half-Yearly Scope of Spreads on Publicised Euroloans for Mexico, 1973-82^a
(percentage points above LIBOR)



Note: During the first semester of 1973 two credits were contracted, both paying a spread of 0.750 points above LIBOR, so the second semester of that year starts in the figure as a single point. During the first semester of 1977 four credits were granted to Mexico, two in Swiss francs (with a bigger difference in their spreads) and two in U.S. dollars. To avoid any distortion because of the currency change, only the dollar loans -with a difference between them of 0.0025%- were included. No other non-U.S. loan alters the scope of the spreads.

Source: Calculated with data from Table B14.

⁵² Figure 5.13 includes the borrowing by *all* Mexican SOEs and the central government, and Table 5.16 the *average* spreads of the *most important* borrowers during the semester; hence the gap in the latter is smaller than the one depicted in the former.

⁵³ A view coinciding with the 1979 interpretative ruling on the 10 percent limit by the U.S. Comptroller of the currency (described in Chapter 4), and also apparently shared at some lenders in the Euromarkets. For example, in mid-1982, when rumbles of trouble were being heard for Latin American borrowers, some of the healthier Venezuelan SOEs were able to continue borrowing, while the central government was unable to find any credits on its own (McGirk 1982, 123-129). Apparently, even the Venezuelan government considered that it had no automatic obligation to cover the debts contracted by its enterprises, while those companies were able to obtain low spreads (or any loans at all) because of the implicit guarantee of the country, that for a time even enjoyed the coveted AAA credit rating from Standard & Poor's and Moody's (*ibid*; Alvarez de Stella 1988, 243-244).

Under that optic, the most “secure” Mexican borrower should have been Mexican government itself -the United Mexican States, arguably followed by Pemex (particularly after oil wealth was unveiled) or Nafinsa (the development bank that acted many times as the government’s financial agent). UMS and Pemex should be getting the lowest spreads because of their foreign exchange earning capacity. On the other side of the spectrum, there should be development banks such as Banrural (agriculture) or Finasa (sugar production support), or also CFE, the electricity company, all of them involving subsidies, and with no foreign exchange earnings. However, that was not the case at all. For example, the second time that FINASA entered the Euromarkets, in May 1975, it obtained a lower spread than the central government, Pemex, and Nafinsa, which had signed syndicated loans in the same month.

Table 5.17. Average Spreads on Loans for the Main Public Borrowers, 1973-82
(percentage points above LIBOR)

Period	UMS	PEMEX	CFE	NAFINSA	BANOBRAS	BANRURAL	FINASA	Gap ^a
1973.1	- ^b	0.750	-	0.750	-	-	-	0.000
1973.2	-	0.582	-	-	0.657	-	-	0.075
1974.1	0.554	0.563	0.719	-	0.875	-	-	0.321
1974.2	1.375	-	1.250	1.000	1.125	1.125	-	0.375
1975.1	1.500	1.500	-	1.500	1.500	1.500	1.375	0.125
1975.2	1.500	1.375	-	1.417	1.375	1.500	-	0.125
1976.1	-	1.500	1.750	1.313	1.500	-	-	0.437
1976.2	1.625	-	-	1.750	-	-	1.438	0.312
1977.1	-	1.588	-	1.750	1.543	1.500	-	0.250
1977.2	1.750	-	-	1.550	-	1.607	-	0.200
1978.1	-	1.333	1.375	1.250	-	-	-	0.125
1978.2	0.875	0.813	0.938	-	0.750	1.000	1.000	0.250
1979.1	0.375	0.595	0.896	0.938	-	-	0.875	0.563
1979.2	0.563	0.563	0.746	0.594	0.750	0.750	-	0.187
1980.1	0.521	-	-	-	-	-	0.500	0.021
1980.2	0.531	0.250	0.563	-	0.547	-	0.547	0.313
1981.1	-	0.500	0.563	0.500	0.500	0.500	-	0.063
1981.2	0.500	0.375	0.500	0.688	0.500	-	-	0.313
1982.1	0.917	0.563	-	-	-	0.607	-	0.354

a. Difference between the lowest and highest spreads paid during the period. Difference between the lowest and highest spreads paid during the period.

b. No borrowing during the period.

Source: Constructed with data from Table B19.

Apparently there was no “superior” or “riskier” borrower; there was no clear pattern. For example, while during the second semester of 1974 the UMS borrowed with a higher spread than CFE and Nafinsa, during the first six months its average spread was inferior to that negotiated by them (see Table B19 for monthly statistics). Other factors such as the amount of the loan, its maturity, negotiation skills, or fees involved (see Table B14) may at least partially explain the spread differences. At the end of the day, regardless of their respective financial conditions, in a debt crisis all Mexican public borrowers shared the same fate -and so did their respective creditors.

5.5. SPREADS ON LOANS TO MEXICO AND OTHER COUNTRIES⁵⁴

Without rejecting the conjecture that spreads of different countries move together through time, the data in Tables 5.18 and 5.19 also point to a domestic content in the spread level. The correlation between them is evident (see Table 4.4), but looking at the difference between the Mexican spreads with those from ten other countries that also borrowed heavily in the Euromarkets an additional picture emerges: the relative position of Mexico with respect to those countries changes considerably. During the first half of 1978, Mexican borrowers were paying higher spreads than their peers in eight of the ten countries.⁵⁵ The Mexican position gets better as time goes by, and during the second semesters of 1980 and 1981 it is paying on average the *lowest* spreads of the whole group, besting even countries like France, Denmark, and Malaysia. The relative position of the country deteriorates noticeably during the first semester of 1982, when six countries are borrowing with lower spreads than Mexico.⁵⁶

Table 5.18. Average Spreads on Borrowing in the Euromarkets, 1978-82^a
(percentage points above LIBOR)

	1978.1	1978.2	1979.1	1979.2	1980.1	1980.2	1981.1	1981.2	1982.1
Mexico	1.313	0.813	0.586	0.547	0.521	0.250	0.500	0.313	0.563
Argentina	1.500	1.487	0.788	0.625	0.594	0.532	0.563	0.802	0.813
Brazil	2.032	1.584	0.961	0.808	0.807	1.417	1.157	1.833	2.125
Denmark	0.750	0.750	0.571	0.500	0.500	0.500	0.524	0.375	0.399
France	0.614	0.500	0.357	0.400	0.438	0.388	0.413	0.353	0.375
Hungary	0.848	^b	0.657	-	0.536	-	0.594	0.625	0.500
S. Korea	0.875	0.907	0.754	0.736	0.763	0.875	0.875	0.514	0.485
Malaysia	0.750	0.675	0.563	-	0.521	-	0.438	0.318	0.422
Nigeria	1.000	1.063	1.063	1.016	1.000	0.933	0.875	0.875	0.875
Philippines	1.000	1.000	0.797	0.875	0.750	0.813	0.907	0.810	0.763
Venezuela	0.750	0.713	0.625	0.704	0.250	0.391	0.407	-	0.450

a. Half-year data, calculated from the quarterly figures presented in Table D12.

b. No borrowing during that period.

Source: Calculated from data in Table D12.

The explanations for this evolution can only be of domestic origin. Mexico not only moved with the general trend and managed lower spreads after 1978 along with many other countries, but also got *relatively* even better treatment from lenders (reflected in rankings such as those presented in Table 5.6). Explanations for this, that may be complementary, are 1) that the country evolved during the period into an important oil exporter and/or 2) the superb indebtedness policy followed from 1978 until the first months of 1981.⁵⁷ The substantial deterioration observed during the first months of 1982 is result of the

⁵⁴ These countries are *all* the sovereign borrowers that made regular borrowings from the syndicated loan market in the 1978-82 period (if 1977 had been included the total number of countries would have reduced even more). Like Mexico, some countries had many public agencies and enterprises that entered the market along with the central government or its financial agent. Also like the Mexican case, different borrowers (though with the same sovereign guarantee) received in occasions very different spreads. Therefore, the task was to construct the most complete historical sequence, in order to make it comparable to others, with the least of (different) borrowers from the same country as possible. All the borrowing statistics from countries other than Mexico used in this section are included in Appendix D.

⁵⁵ And one of the other two countries was Brazil, whose indebtedness policy explains the high spreads it paid.

⁵⁶ Confirming movements such as those presented in Table 4.8.

⁵⁷ As it is clear from Chapter 3, macroeconomic management cannot be included as a reason to explain the better spreads obtained by the country.

(correct) perception of the markets that Mexico was in a desperate situation. The conclusion would be that the Mexican spreads (and, arguably, the spreads of any other sovereign borrower) face both global and domestic influences. When considered creditworthy by lenders, a country will enter the scope or band of spreads patterned by the countries that had been borrowing previously. The lending conditions faced by the country will move along with that band, but domestic factors will move the specific country *within* the band. The loss of creditworthiness results not in a higher spread, but the ejection from the band altogether: no credit at all. This conclusion is fully consistent with those presented in Chapter 4.

Table 5.19. Difference Between Mexican Spreads with Respect to other Countries, 1978-82^a
(percentage points above LIBOR)

	1978.1	1978.2	1979.1	1979.2	1980.1	1980.2	1981.1	1981.2	1982.1	Max. Diff. ^b
Argentina	0.188	0.675	0.203	0.078	0.073	0.282	0.063	0.490	0.250	0.612
Brazil	0.719	0.771	0.376	0.261	0.286	1.167	0.657	1.521	1.562	1.301
Denmark	-0.563	-0.063	-0.015	-0.047	-0.021	0.250	0.024	0.063	-0.165	0.813
France	-0.699	-0.313	-0.229	-0.147	-0.083	0.138	-0.087	0.041	-0.188	0.837
Hungary	-0.465	- ^c	0.072	-	0.015	-	0.094	0.313	-0.063	0.777
S. Korea	-0.438	0.094	0.168	0.189	0.242	0.625	0.375	0.201	-0.079	1.063
Malaysia	-0.563	-0.138	-0.023	-	0.000	-	-0.062	0.006	-0.141	0.569
Nigeria	-0.313	0.251	0.478	0.469	0.479	0.683	0.375	0.563	0.312	0.995
Philippines	-0.313	0.188	0.212	0.328	0.229	0.563	0.407	0.498	0.200	0.875
Venezuela	-0.563	-0.100	0.040	0.157	-0.271	0.141	-0.094	-	-0.113	0.719
Average	-0.301	0.152	0.128	0.161	0.095	0.481	0.175	0.410	0.158	0.782 ^d

a. Difference between the spread paid by Mexico and the respective country during that period. For example, in the first semester of 1978, Mexico borrowed with an average spread of 1.313%, and during the same period the syndicated loans contracted by Denmark had an average spread of 0.750%, hence the 0.563% difference. A negative sign means that the respective country was paying a better spread than Mexico.

b. Difference between the extreme points observed between the spreads of the respective country and Mexico. For example, in the case of Denmark, during the first semester of 1978 it borrowed with a spread inferior in 0.563% to that of Mexico, and during the second semester of 1980 it borrowed with a spread that on average was 0.250 over that covered by Mexican borrowers, hence the 0.813% gap. It must be observed that in 8 of the 10 cases, one of the points of comparison was the first semester of 1978.

c. No borrowing during that period.

d. Maximum difference between the averages of the respective periods (the first semester of 1978 and the second semester of 1980).

Source: Calculated from data in Table 5.18.

The movement of Mexico with respect to the other 10 countries -within the band- is evident: spreads get relatively better by a maximum range that goes from 0.569% (with respect to Malaysia) to 1.301% (Brazil). To confirm the better relative position of Mexico with respect to other countries, Table 5.20 presents the spreads paid by several electricity public companies on their borrowings from 1978 to 1981. The objective is to compare the evolution of spreads covered by similar borrowers in different countries, even if the group of countries with which the comparison can be made is reduced. The comparison confirms the analysis derived from Table 5.19: the position of Mexico not only gets better on its own, but also with respect to other countries.

Table 5.20. Spreads on Loans to Electricity Public Companies^a, 1978-81
(percentage points above LIBOR)

Period	Argentina	Brazil	France	Mexico	Philippines	S. Korea
1978.1	1.625	2.000	0.630	1.375	-	-
1978.2	1.375	1.521	0.500	0.938	1.000	1.000
1979.1	1.006	-	0.357	0.896	-	0.875
1979.2	- ^d	0.750	0.400	0.746	-	0.750
1980.2	0.688	1.688	0.400	0.563	-	-
1981.1	-	2.125	0.413	0.563	-	0.875
1981.2	0.688	-	0.385	0.500	0.925	0.444
$\Delta\%$ ^b	-57.7	6.3 ^e	-41.9	-63.6	-	-
$\Delta\%$ ^c	-50.0	39.7 ^e	-20.0	-46.7	-7.5	-55.6

a. The official borrowers were: Electricité de France; Comisión Federal de Electricidad (Mexico); Agua y Energía Eléctrica (Argentina); Centrais Elétricas Brasileiras and Light-Servicos de Electricidade (Brazil); Korea Electric Co., and National Power Corporation (The Philippines).

b. Percentage change between the first semester of 1978 and the last semester of 1981.

c. Percentage change between the second semester of 1978 and the last semester of 1981.

d. No borrowing during the semester.

e. Calculated assuming that the spread paid by Brazilian companies in the last semester of 1981 was 2.125%, as it was exactly the amount covered in the previous and following semester. See Table D2.

Source: Constructed with data from Tables 5.17., D1, D2, D4, D8, and D10.

5.6. SPREADS ON LOANS TO MEXICO: EMPIRICAL EVIDENCE

Following what was outlined in detail in Chapter 4, the spreads covered by Mexico should have followed the spreads paid by other countries. As it has also been detailed in the previous chapter, it was generally the developed or industrialised countries (notably France) the ones that were the spearhead that drove the spreads down in the Euromarkets (see Table 4.11). Mexico was regarded as a country with great potential during the 1970s, moreover when the enormous oil wealth of the country was unveiled during the second half of the decade. Nevertheless, it was never in the vanguard of countries that were the first to achieve lower spreads, as was also the case with some selected LDCs, such as Singapore. Possibly Mexico could have fitted into that group, had it not been for its enormous appetite for loans. What can be ascertained was that Mexico was in the vanguard of the middle-income countries when borrowing from the Euromarkets. As it had been detailed at the beginning of the chapter, it re-entered the international capital markets in the first half of the 1960s, and remained as a prime borrower until the early 1980s.

If the spreads managed by Mexican public borrowers were influenced by those obtained by other sovereign borrowers, it was by those obtained by industrialised countries. As it has been emphasised in Chapter 4, and as it is clear from what was presented in that chapter, no domestic variables explain the evolution of the Mexican spreads. Another variable, and naturally also an international one, that may help to explain the level of the spread above LIBOR of Mexican loans (and that of other countries) should be LIBOR itself.

Before checking into that hypothesis, however, is it worth to look if there was no direct influence by Mexican domestic variables on the spreads it paid. One of the main conclusions of Chapter 4 was that the Euromarkets were supply-driven. Is it possible to confirm that assertion in the case of Mexico? It is, as Table B14 provides the gross publicised borrowing by the country, that is, the demand of loans by Mexico in the Euromarkets. It is important to take into account that Mexico is not a “small country” as a borrower in the Euromarkets, but rather one of the most important ones during the 1970s and early 1980s, and even during some periods the biggest borrower. It is also possible to consider that if spreads were determined by domestic factors, then the perceived soundness of the economy should have an influence on the spreads. Because of its quick availability to lenders participating in the capital markets, inflation is chosen as a variable.

Table 5.21 presents the correlation between the spreads obtained by Mexico quarterly and the following variables:

GRODEBT – Gross indebtedness during the same quarter;

GRDELTA – Gross indebtedness during the previous quarter (under the consideration that the borrowing will take one quarter to affect the spreads);

CURRACC – The current account deficit observed during the quarter (as another proxy for the demand of external savings by the country), and

ACCINFLA – Accumulated inflation during the quarter (as a measure of perceived economic health).

Table 5.21. Correlation Between Mexican Spreads and Several Domestic Variables, 1974-82^a

	GRODEBT	GRODELAG	CURRACC	ACCINFLA
Pearson Correlation	-.337	-.600 ^a	-.209	-.515 ^a
Significance (2-tailed)	.052	.000	.237	.002

Note: Correlation is significant at 0.01 level (2-tailed).

a. 34 quarterly observations from the first quarter of 1974 to the second quarter of 1982.

Source: Calculated with data from Tables A4, A14, B14 and B18.

The gross indebtedness observed during a quarter apparently influences the spreads observed during the following period. However, the sign is negative. That is, an increased gross borrowing would bring along a *fall* in the spreads, or a reduction in the demand of loans by Mexico would bring along an increase in the spread. A much more logical explanation is that the relation between both variables is spurious. Interestingly enough, also the accumulated inflation presents a significant correlation with the spreads, but also a negative one. That is, an inflation increase would bring along a reduction in the spreads paid by the country.

The real answer, as stated in Chapter 4 and as it seems quite probable just by looking at Figure 5.7, is that the spreads paid by Mexican borrowers were influenced by, and followed in their evolution, those of industrialised countries.

Table 5.22 presents the correlation between the spreads obtained by Mexico quarterly and the following variables:

SPRINDU – Spreads paid by industrialised countries during the quarter;

SPRLDCS – Spreads paid by LDCs during the quarter;

RSCHEDUL – Spreads paid by countries that rescheduled their debts during the quarter;

LIBOR – Average LIBOR during the quarter.

Table 5.22. Correlation Between Mexican Spreads and Several International Variables, 1974-82

	SPRINDU	SPRLDCS	RSCHEDUL	LIBOR
Pearson Correlation	.903	.930	.576	-.845
Significance (2-tailed)	.000	.000	.000	.000

Note: Correlation is significant at 0.01 level (2-tailed).

a. 34 quarterly observations from the first quarter of 1974 to the second quarter of 1982.

Source: Calculated with data from Tables B18 and C2.

Despite the fact that the correlation is higher with SPRLDCS, it is discarded, as intuitively it can be ascertained that the spreads paid by Mexico were determined by those paid by industrialised countries and not by LDCs. LIBOR presents a high correlation and the correct sign. As Euromoney (1980c, 20) points out, when LIBOR goes up, the demand for loans as a whole goes down, and competition between banks to win the smaller volume of available business drives spreads down

A linear regression is run with SPREMEX (Mexican spreads in the quarter) as the dependant variable and SPRINDU and LIBOR as independent ones.⁵⁸ The following equation is obtained:

$$\text{SPREMEX} = 0.745 + 0.728 \cdot \text{SPRINDU} - .0359 \cdot \text{LIBOR}$$

(2.70) (5.11) (-2.44)

$R^2 = 0.845$; number of observations = 34.

As it is clear, all the variables are significant. The equation shows that the Mexican spreads are positively related to the spreads paid by industrialised countries, a result coherent with all the analysis presented in Chapter 4 and in this chapter. LIBOR is negatively correlated as it was expected.

⁵⁸ It may be argued that the spreads of industrialised countries took time to affect those by Mexico and that, therefore, the spreads of the preceding quarter are the ones that should be regressed against the Mexican spreads. However, as it is obvious from Chapter 4 (see for example Table 4.11) the effect that the vanguard of sovereign borrowers had on the rest was quite rapid.

5.7. A NEW, AND DIFFERENT, DEBT CYCLE: 1989-94

In June 1989, after seven years as an outcast, Mexico returned to the international capital markets, with a difference: during the 1970s and until 1982 syndicated loans had been the preferred instrument to borrow, since 1989 debt was mainly acquired through bonds. Asides from the regulatory changes that several countries undertook and that facilitated the access of LDCs to the international bond markets (detailed in Chapter 4), there were specific measures that particularly benefited Mexican (public and private) borrowers. For example, in 1991 the Japanese Securities Dealers Association designated 32 countries for investments made through country fund vehicles used by retail investors. Seven were LDCs: six in Asia and Mexico. In Canada, the Ontario Securities Commission issued proposals that would exempt Mexican companies from certain disclosure and accounting regulations, as they already met equivalent regulations in Mexico. In June 1991 the Securities and Exchange Commission of the U.S. did the same for all countries (IMF 1992d, 45).

In a certain way, Mexico had a clean slate as a debtor. On one hand, the debt with commercial banks was renegotiated.⁵⁹ On the other, bonds represented a small fraction of the debt owed, and had never been subject to any rescheduling. As interests and principal had been paid without fault during the 1980s, that debt had been falling through time, and was very small by 1989 (Table 5.23). In that sense, the incursions of the country into the bond markets almost represented a fresh start.

Table 5.23 Value of Bonds that could be Outstanding in 1989^a
(million dollars)

Borrower	Offer Date	Maturity Date ^b	Amount	Borrower	Offer Date	Maturity Date ^b	Amount
UMS	29.11.72	01.12.97	35.0	PEMEX	06.81	06.06	95.6 ^c
UMS	30.11.73	11.91	30.0	UMS	09.81	09.08	90.3 ^c
PEMEX	15.01.75	01.90	50.0	NAFINSA	22.10.81	01.11.90	150.0
BANOBRAS	22.10.75	10.90	25.0	NAFINSA	11.81	11.96	186.1 ^c
PEMEX	20.10.77	10.92	90.0	PEMEX	27.01.82	01.02.90	64.5 ^e
NAFINSA	21.12.77	12.92	100.0	UMS	02.82	05.03.97	130.0
BANOBRAS	12.04.78	04.90	25.4 ^c	NAFINSA	15.03.82	01.03.90	62.9 ^e
BANRURAL	24.05.78	05.90	36.0 ^c	BANOBRAS	26.03.82	15.04.92	150.0
PEMEX	01.08.78	08.93	50.0	PEMEX	19.05.82	01.06.94	150.0
BANOBRAS	25.08.78	08.90	50.0	BANRURAL	21.05.82	15.05.90	42.8 ^e
PEMEX	07.79	07.95	73.0	UMS	16.07.82	22.07.97	175.0
PEMEX	01.80	01.90	37.2	TELMEX	04.08.82	08.97	50.0
TELMEX	05.81	01.06.91	75.0				
TOTAL							2023.8

a. The total amount that would be circulating if no bonds had been paid in advance. However, many of the bonds had the option to be "called" on certain specific dates, before their final maturity. Therefore, it is very difficult to know the precise amount of bonds circulating in mid-1989. Because of the debt crisis of the 1980s, undoubtedly many owners of Mexican bonds opted for their call options. According to Fidler (1989), less than \$1 billion in Mexican bonds were circulating by June 1989.

b. Estimated adding the original maturity of the bond to the offer date. When the precise maturity date is included, the source is the Euromoney database or the respective Tombstone. For full details see Table B15.

c. Bond originally in a currency different from the U.S. dollar (mainly British pounds and German deutschmarks).

Source: Constructed with data from Table B15, the Euromoney database, and the respective Tombstones.

⁵⁹ For details of the negotiations with the commercial banks that took place during the 1980s see Chapter 6.

Ironically enough, it was Merrill Lynch the agent -that had acted in the same role in the last big incursion of Mexico in the eurobond market in 1982- that, on behalf of Bancomext, marketed the \$100 million issue in June 1989. The uncertainty on the prospects of Mexico as a debtor was not so evident in the coupon offered (10.250% per annum) as in the price of the issue, 88.450%, that thus gave a very high initial yield of 17 percent, 820 basis points above U.S. government bonds of similar maturity.⁶⁰ Mexico went back to the Eurobond market two more times during 1989, in October and December (see Table B15). It is really the fourth time, in March 1990, that marks the beginning of constant incursions into that market (see Table B16).⁶¹ The first syndicated bank loan was obtained In February 1992 by Pemex: \$100 million one-year revolving credit to finance imports (IMF 1991e, 15-17; IMF 1992d, 42n86). From March 1990 to May 1994, the indebtedness process through bonds is very homogeneous, with bonds usually in the \$100-\$250 million range. Though there is a marked increase in the borrowing pace after the first quarter of 1993 (Table 5.24) the amounts obtained were nevertheless negligible if compared to the sums borrowed during 1981-82⁶² (compare Tables 5.4 and 5.7 with 5.24).

Table 5.24. Gross Borrowing by Mexico in the International Bonds Markets, 1989-94
(million dollars)

	1989	1990	1991	1992	1993	1994
I	0.0	213.8	300.3	375.9	522.4	1700.0
II	100.0	299.6	300.0	191.9	1268.9	1195.9
III	0.0	207.4	468.8	607.0	920.6	0.0
IV	254.8	250.0	683.6	200.0	1123.5	204.3
Total	354.8	970.8	1752.7	1374.8	3835.4	3100.2

Source: Calculated with data from Table B15.

5.7.1. QUASI-EXTERNAL INDEBTEDNESS: THE TESOBONOS

In July 1989 a new government security is issued: the Tesobonos⁶³, bonds denominated in dollars, and payable in pesos, according to the exchange rate prevailing in the (free) market. The Tesobonos represent a complement to the so-called Pagafes:⁶⁴ similar instruments established in August 1986, with the only difference that the reference exchange rate for their payment was that of the controlled market. The first Tesobonos, for \$10 million dollars, are issued on July 13, 1989, offering a maturity of 182 days (Banco de México 1986a, 145, 167; 1989a, 194). As it was noticed that demand for such instruments favoured even shorter terms, 28 and 91-day Tesobonos were mostly issued from August 1989 onwards. In a certain way, Pagafes and Tesobonos were the direct descendants of the so-called Mexdollar accounts, that until 1982 allowed Mexicans to have dollar-denominated savings in the

⁶⁰ When the issue was sold, Mexico was still negotiating with the commercial banks an agreement under the Brady Plan. The respective Tombstone is included in Appendix E.

⁶¹ A possible explanation for this is that Mexico signed the final agreement with its commercial creditors until the first days of February 1990 (see Chapter 6 for details).

⁶² And even more when amounts are corrected for inflation. For example, the \$2.5 billion jumbo loan obtained in June 1982 was equivalent to approximately \$3.85 billion at the end of 1993 -the *whole* gross borrowing of Mexico through bonds during that year.

⁶³ Acronym for Bonos de la Tesorería de la Federación (Treasury Bonds).

⁶⁴ Acronym for Pagarés de la Tesorería de la Federación (Treasury Promissory Notes).

banking system. A key difference is that, since December 1990, investment in government securities is opened also to foreigners. From that moment onwards, Tesobonos (Pagafes were to disappear after November 1991, when exchange controls were abolished; see Banco de México 1991a, 206-207 and Table B27) became potentially a form of quasi-external debt: denominated in dollars and owed to foreigners. In that sense, the only real difference between the Tesobonos and bonds issued in the Euromarkets was their maturity.⁶⁵

Like the Mexdollar accounts, the Tesobonos offered an option for investors that felt uncertain about the future evolution of the exchange rate. If faced with exchange rate uncertainty, the government could combat it through an exchange rate adjustment within the band, intra-band intervention by the Bank of Mexico, increases in domestic interest rates, and/or allowing a swapping from Cetes (denominated and payable in pesos) to Tesobonos.⁶⁶ The latter tactic was used at least in three occasions in 1990-93, all of them successfully (Table 5.25 and Figure 5.14). As soon as exchange rate uncertainty lessened, the inverse procedure took place, and Tesobonos were swapped for Cetes, that offered more attractive ex-ante interest rates when there was credibility on the exchange rate policy.

Table 5.25. Increases in the Tesobono Debt Stock: Motives and Amounts, 1989-93
(end of month figures in million dollars and percentages)

Period ^a	Motive of Exchange Rate Uncertainty	Tesobono Debt	% ^b
December 1989 to June 1990	External debt final agreement and Pacto renewal. ^c	\$73.8 in December to \$692.6 in April.	1.03 2.40
October 1991 to February 1992 ^d	The exchange rate policy agreed within the <i>Pacto</i> ^e brings uncertainty on the sustainability of the exchange rate band. As time passes, there are increasing fears of an abrupt devaluation. ^f	\$64.7 in October to \$471.2 in January.	0.88 4.56
and		and	
July to October 1992 ^d		\$436.3 in July to \$938.7 in September.	3.19 6.34
June to December 1993	NAFTA ratification. ^g	\$84.1 in June to \$1929.2 in December.	0.54 6.03

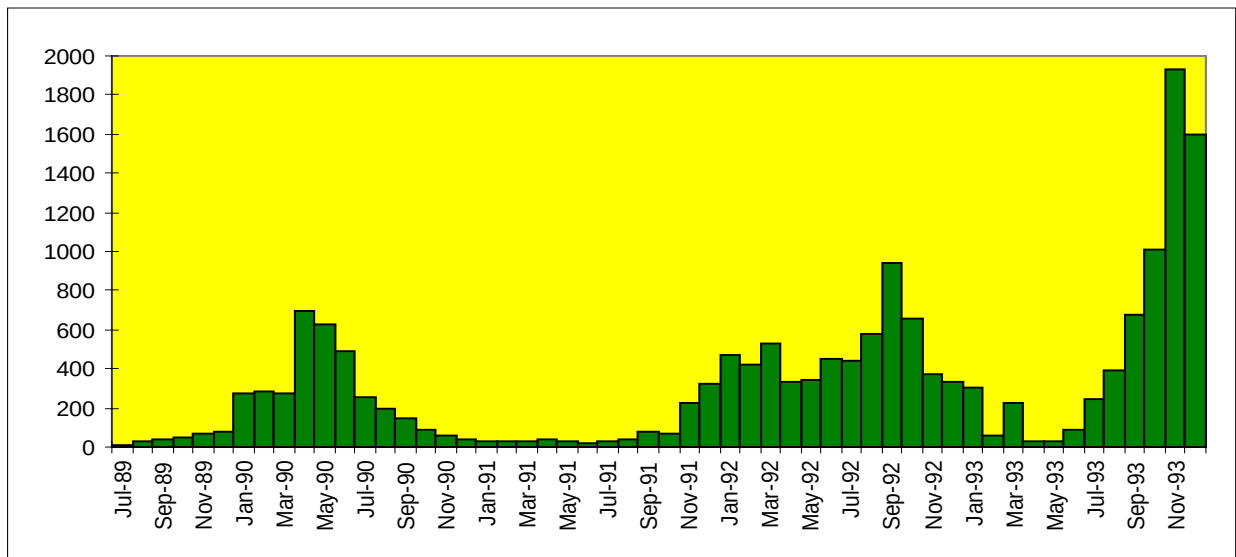
- a. Previous month to an important increase in the Tesobono stock to the month where an important fall in the stock takes place.
b. Proportion of Tesobonos mentioned in the previous column in the total amount of Cetes plus Tesobonos in hands of private investors during that month (at market value). For example, in December 1989 the \$73.8 million in Tesobonos represented 1.03% of the total amount of Cetes and Tesobonos in hands of private investors.
c. The final agreement on the debt owed to the commercial banks was signed on February 4; a new Pacto agreement was signed on May 27.
d. These two periods could be even considered one. However, it is divided because, after a period of several months of uniform level in the Tesobono stock, there is a second jump, to an even higher level (Figure 5.14).
e. Signed on November 10, the crawling peg pace was reduced in 50 percent, and exchange controls were abolished. The perception that the new crawling peg was too small and would lead to an abrupt devaluation possibly explains why the Tesobono stock stays high during the year, and there is a new increase after August (Figure 5.14).
f. A new Pacto agreement was signed on October 20, 1992; the crawling peg pace was doubled, thus reversing the reduction agreed on the previous stage (see Figure 3.13).
g. The public perceived the increasing likelihood of a negative vote in the U.S. Congress on NAFTA. That legislative body ratified the agreement on 17 November 1993.

Source: Constructed with data from Table B24 and information from Banco de México(a), several issues.

⁶⁵ And, consequently, it was much more difficult for the government to do what it had done in 1982 with the mexdollar deposits: partially default on them.

⁶⁶ The exchange rate band was established in November 1991 (see Chapter 3 and Figure 3.13). For example, a combination of all the four measures was used to fend off the speculative attack caused by the uncertainty on the NAFTA approval (Gil Díaz and Carstens 1996, 31-32).

Figure 5.14. Monthly Evolution of the Tesobono Debt, 1989-93^a
(million dollars)



a. The first issuing of Tesobonos took place in July 1989.
Source: Elaborated with data from Table B24.

5.7.2. A MASSIVE DEBT SWITCH: 1994

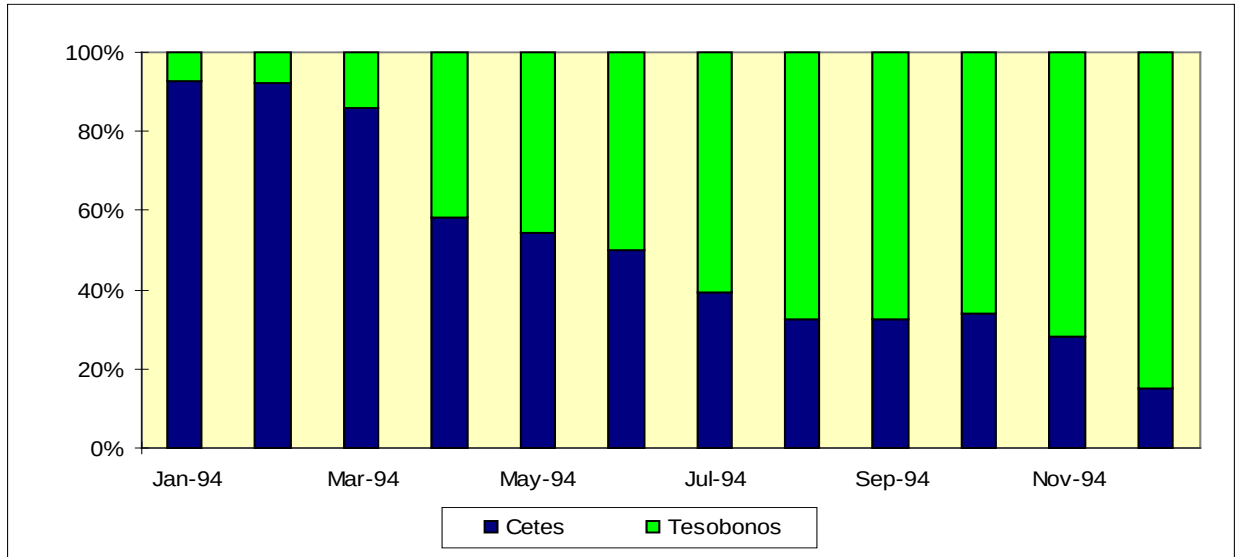
In a certain way, the Cetes/Tesobono swapping brought about to confront the uncertainty motivated by the possible rejection of NAFTA by the U.S. Congress continued after its ratification took place in November 1993; there was never the opportunity to switch back to Cetes, as in previous occasions. Literally, from the first day of 1994, negative shock after negative shock rocked the Mexican economy: on January 1, the formal beginning of NAFTA was marred by the eruption of a guerrilla insurrection in the southern state of Chiapas. At the beginning of February, interest rates were raised in the United States, a signal that -in concert with the prospects for the evolution of interest rates in Germany and Japan- heralded for many the end of capital flows to LDCs such as Mexico, that instead would flow back to the U.S. and other countries.⁶⁷ But by far the worst shock would be domestic and of political nature: on March 23, the presidential candidate of the PRI -virtually the next President of the country- was shot at the end of an electoral rally.⁶⁸ The Tesobono debt, that had started to increase again in January, exploded from that moment onwards, in an attempt from the government to offer investors an instrument that had no exchange rate risk, and help to fend off the strong speculative attack that started against the peso. The Cetes/Tesobonos massive swapping continued unabated during 1994 (Figures 5.15 to 5.17), as new shocks fuelled speculation that an abrupt devaluation would

⁶⁷ The upward adjustment of interest rates, on February 4, 1994, was small, with the Federal Funds rate increasing from 3.0 to 3.25 percent but -in tandem with the very strong fourth quarter U.S. GNP growth figure (announced as 7.5 percent on March 1) was apparently interpreted as a harbinger of future increases in U.S. interest rates and as an indicator of stronger than expected inflationary pressures. The testimony of Federal Reserve Chairman Alan Greenspan before the U.S. Congress apparently reinforced that impression. A further tightening of the federal funds rate (by 25 basis points) on March 22 was followed by a further increase in long-term yields. Moreover, the decision by the Bundesbank not to lower interest official rates at the February 17, 1994 Council meeting, in concert with the announcement a few weeks later of a 20 percent increase in M3 for January, may well have increased pessimism about prospects for future German interest rate reductions. Finally, further interest rate declines in Japan were dampened when Japanese equity prices proved to be more buoyant than expected, and when reports surfaced that certain Japanese government trust accounts would switch from being net purchasers to become net sellers of government bonds (IMF 1994d, 3-4).

⁶⁸ The PRI had won all the presidential elections since its foundation in 1929, and all the polls suggested that the result in 1994 would keep that record. The last occasion a political assassination of such a high-ranking figure had taken place in 1928.

take place. Capital outflows brought about a spectacular drainage of the international reserves that on mid-February had reached a historical maximum of \$29.2 billion (Table 5.26).

Figure 5.16. Monthly Evolution of the Cetes/Tesobonos Relation^a, 1994
(percentages)

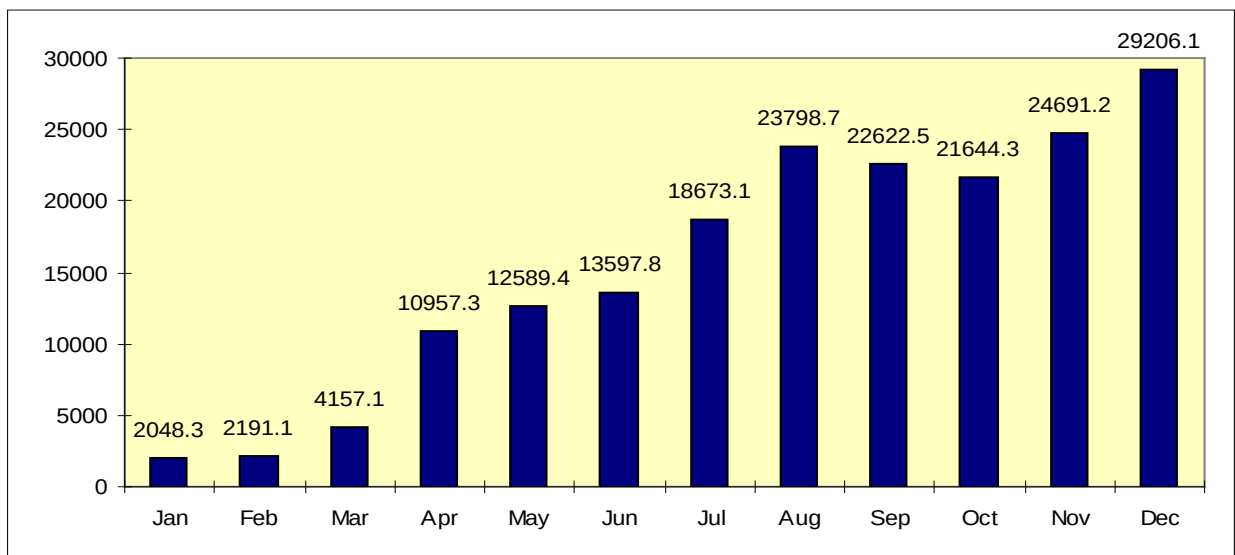


a. The total market value of Cetes and Tesobonos in hands of private investors and enterprises represent 100 percent. For example, of the added market value of Cetes and Tesobonos at the end of July 1994, 32.51 percent were Cetes, and 67.49 percent Tesobonos.

Source: Constructed with data from Banco de México (1996c).

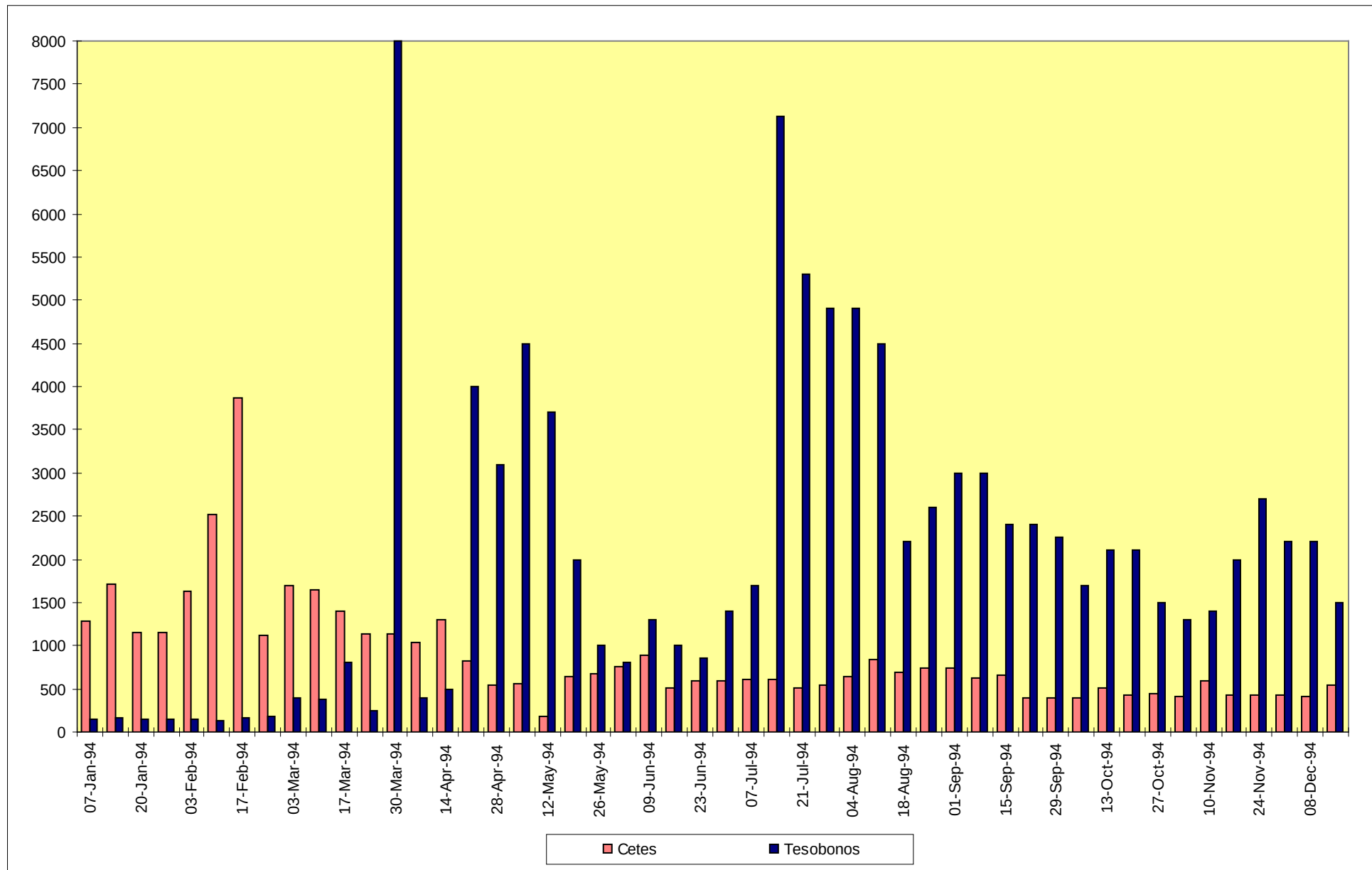
On December 1, Ernesto Zedillo began his six-year administration. By then, virtually the whole of the internal debt had been converted into Tesobonos; a dollar-denominated and, as important, short-term debt. With reserves at very low levels, a bungled attempt to devalue abruptly while keeping the exchange rate band on December 19 (see Chapter 3) brought the worst of both worlds, with an stampede for the dollar that reduced the reserves by a further \$4.5 billion in one day. The exchange rate band was abandoned the following morning, and the peso allowed to float freely.

Figure 5.17. Monthly Evolution of the Tesobono Debt, 1994
(million dollars)



Source: Elaborated with data from Table B24.

Figure 5.15. Gross Indebtedness with Cetes and Tesobonos, 1994
(million dollars)



Source: Elaborated with weekly data from Banco de México.

Table 5.26. Losses of International Reserves during 1994
(million dollars)

Intervention Period	Speculative Attack Motive(s)	Total ^a	Before ^b	After ^c
09 March to 11 March	Not clear	700	29001	28523
25 March to 21 April	The PRI's presidential candidate (virtually the next President) was assassinated on March 23. ^d	10388	28321	17536
23 June to 21 July	Short-lived resignation of the Interior Secretary. ^{de} Deputy Attorney General's resignation, accusing government officials of obstruction of justice. ^{df} and/or	2902	16975	14185
14 Nov. to 28 November	Lack of credibility in the commitment of the incoming Zedillo administration to sustain the exchange rate policy followed under the <i>Pacto</i> . ^g and/or The 75 basis points increase on interest rates decided by the U.S. Fed on November 15. Military movements by the EZLN guerrilla. ^d and/or	3714	16221	12571
15 Dec. to 20 December	Lack of credibility in the ability of the government to sustain the exchange rate policy, or to follow the economic programme for 1995. ^h and/or Expectations that a new increase in interest rates would be decided by the U.S. Federal Reserve on its December 20 meeting	1549	11908	10359
21 December	Speculative attack that followed the government's decision to abruptly increase the ceiling of the exchange rate band by 15 percent, that broke seven years of following a pre-announced exchange rate policy under the different <i>Pacto</i> agreements.	4543	10359	5854
Total		24247	-	-

a. Amount of reserves lost intervening in the exchange markets. a. Amount of reserves lost intervening in the exchange markets.

b. Stock of reserves the day before the intervention began.

c. Stock of reserves at the end of the day the intervention ended.

d. Official interpretation of the Bank of Mexico to explicate the loss of reserves.

e. Considered by all political parties as a safe pair of hands to conduct the incoming federal election.

f. While investigating the murder of his own brother, who was Secretary General of the PRI when killed.

g. Reason argued by then Secretary of Finance, Pedro Aspe, in a secret meeting between key members of the outgoing and incoming administrations.

h. Announced on December 15, it aimed, for example, to achieve a real GDP growth of 4%, with a current account deficit of approximately \$30 billion dollars.

Source: Constructed with data from Banco de México (1995a, 192-199) and Aspe (1995).

When economic agents (domestic and foreign) realised that the amount of the Tesobono debt (\$29.2 billion dollars at the end of December), with 99.2% of that amount coming due during 1995, and with the reduced level of the international reserves (\$6.1 billion, the lowest since mid-1990), panic started, as they correctly deduced that there was not enough to pay everybody, and the peso flew off the charts (see Figures 3.13 and 6.2). Not only a debt crisis, but also a virtual financial meltdown begun.

Considering the Tesobonos as external debt, the pace of indebtedness during 1994 is obviously colossal (Table 5.27).⁶⁹ The problem in itself was not the amount⁷⁰, but that it was short-term and dollar-denominated. It exploded (in pesos) as the peso sunk against the dollar. Just in the last ten days of December the internal debt increased by 21.8 percent in nominal terms -equivalent to 2.35 percent of GDP- because of the devaluation. With the peso not only floating, but literally in free fall, there was no *ex-ante* interest rate that would satisfy panicked investors: the option of swapping back to Cetes, as it had been done in the recent past, was out of the question. What Mexico needed to do then was reduce its own needs of foreign resources to a minimum (that is, not only reduce the current account deficit but strive for a surplus) and find money to liquidate the Tesobonos, or default. There was no other way but to subject the economy to a draconian adjustment, while finding an international lender of last resort.⁷¹

Table 5.27. Net Public Indebtedness, 1989-94^a
(million dollars and percentages)

Year	Total Net Flow ^b	Total Net Flow ^c	GDP ^e	As Percentage of ^d		Reserves ^f
				Current Account	Capital Account	
1989	-4944.2	-4870.4	-2.22	-83.7	-153.4	-76.9
1990	1711.3	1677.3	0.65	22.5	20.2	22.6
1991	2217.5	2504.7	0.80	17.1	10.2	16.8
1992	-4232.6	-4222.8	-1.16	-17.3	-16.0	-22.0
1993	2992.2	4253.9	1.05	18.2	13.1	19.1
1994	6688.4	34296.0	8.13	115.6	235.2	191.3

a. Naturally, the years where there was a nominal external debt *reduction*, 1989 and 1992, the higher is the fraction of GDP, current account deficit, etc., the better.

b. Not including the Tesobono debt as external debt.

c. Including the Tesobono debt as external debt.

d. All comparisons done with the external debt that includes the tesobono debt.

e. At current prices, divided by the average exchange rate.

f. Average stock of gross international reserves during the year.

Source: Constructed with data from Tables A1, A14, A23, and B1.

⁶⁹ Clearly, the explosion in external debt because of the Tesobonos was mirrored by a reduction in the internal debt.

⁷⁰ In fact, the Tesobono and the total internal debt were relatively small. Considering the December 19 exchange rate, 3.4712 pesos per dollar, the Tesobono debt was equivalent to 8.09 percent of GDP. All the internal debt was equivalent to 10.79 percent, and 13.14 percent of GDP after the devaluation, even then a relatively small amount compared to the internal debt of other countries, industrialised or developing.

⁷¹ That process will be studied in Chapter 6.

5.8. THE EVOLUTION OF BORROWING IN THE 1989-94 CYCLE

Though it returns to the capital markets in June 1989, it is really until March 1990 that a constant incursion of Mexican borrowers in the Eurobonds markets begins. Terms get better during the 1990-93 period, with maturities keeping relatively constant while coupons fall, while issues in several currencies other than the U.S. dollar take place. The best year of the period is 1993, not only because of the coupons and maturities offered by the bonds, but also because of the total number (28) issued during the year. On the other hand, the deterioration in 1994 is clear in all the fronts (Table 5.28).

Table 5.28. Mexican Borrowing in the Euromarkets: Developments and Milestones^a, 1989-94

1989
+ In June, for the first time in seven years, Mexico returns to the Euromarkets, with a \$100 million bond issued by BANCOMEXT. With a 5-year maturity, it offers a 10.25% coupon. Offering price: 88.450%.
+ Bonds during the year: 3; coupon average ^b : 9.583%; maturity average: 4 years.
1990
+ The UMS borrows for the first in March with a record (low) coupon, 8.1%, and (high) 15-year maturity.
+ Bonds in German Deustchemarks and Austrian schillings are issued for the first time.
+ Bonds during the year: 10; coupon average: 10.948%; maturity average: 6.5 years.
1991
+ Conditions tighten: the best bond is again issues by the UMS in July: 9.5% coupon; ten-year maturity.
+ Bonds in Ecus, Spanish Pesetas, Canadian dollars, and British pounds are issued for the first time.
+ Bonds during the year: 15; coupon average: 10.502%; maturity average: 5.7 years.
1992
+ The UMS, in August, again obtains the best coupon of the year: 4.81%, for 8 years; several bonds have a 10-year maturity.
+ NAFIN issues the first bond with a variable interest rate; bonds in French francs are issued.
+ Bonds during the year: 13; coupon average: 8.299%; maturity average: 5.7 years.
1993
+ The lowest coupon for a dollar bond, 5.875%, is issued by NAFIN in February, outstripped by a 3.9% of a Yen bond, also issued by NAFIN in October; bonds also issued in Swiss francs for the first time.
+ Bonds during the year: 28; coupon average: 7.617%; maturity average: 6.5 years.
1994
+ Variable-rate bonds dominate by far, with seven out of the nine issued during the year. All but one (in Yens) of all the bonds issued are dollar-denominated.
+ BANCOMEXT issues a record \$1 billion bond in January, with a 7.25% coupon and 10-year maturity.
+ Borrowing stops in May, with no new issues for six months, with only one issue in November.
+ Bonds during the year: 9; coupon average: 9.250%; maturity average: 4.3 years.

a. Evolution on coupons, maturities, amounts, and currencies.

b. Of all bonds, including those in other currencies.

Source: Constructed from data in Table B15.

Perhaps the most obvious signal of the problems that the country was facing was that there were absolutely no bond offerings from June to October of that year, and only one in November. More than a closure of the markets to Mexican paper, it is possible that, considering the relatively high level of international reserves observed during the year, the Mexican government considered in its better interests not to go to the markets, because of the further deterioration it would face on the borrowing

conditions. Considering the relatively low levels of indebtedness observed during the 1989-93 period, it would be difficult to argue that the government had developed an important dependency on the flows of resources it obtained from the Eurobond markets.

As mentioned, the diversification of borrowing by bond issues in currencies other than the U.S. dollar is important. Arguably the most striking feature of that process is the evolution presented by the coupons. Invariably the initial bond in a certain currency has a higher, even much higher, coupon than those that will follow. That is, the initial offer has to be generous in order to enter a certain market, and once that entrance has been gained, interest rates fall (Table 5.29).

Table 5.29. Evolution of Coupons of Bonds In Currencies other than the U.S. Dollar, 1990-93 (percentage points)

Date / Currency	DM	SCH	PTA	STG	YEN	ECU	C\$	FFR
April 1990	11.250							
June 1990	11.000							
July 1990	11.000	11.000						
March 1991	10.500							
August 1991			14.400			11.500		
November 1991		10.750					11.000	
December 1991				12.250				
January 1992			14.000					
March 1992						10.250		
June 1992								7.028
April 1993			13.600					
May 1993	8.000	8.375						
June 1993			12.650					
July 1993		8.750			4.900			
September 1993				8.750				6.873
October 1993				7.678	3.900			
December 1993					4.000		7.075	

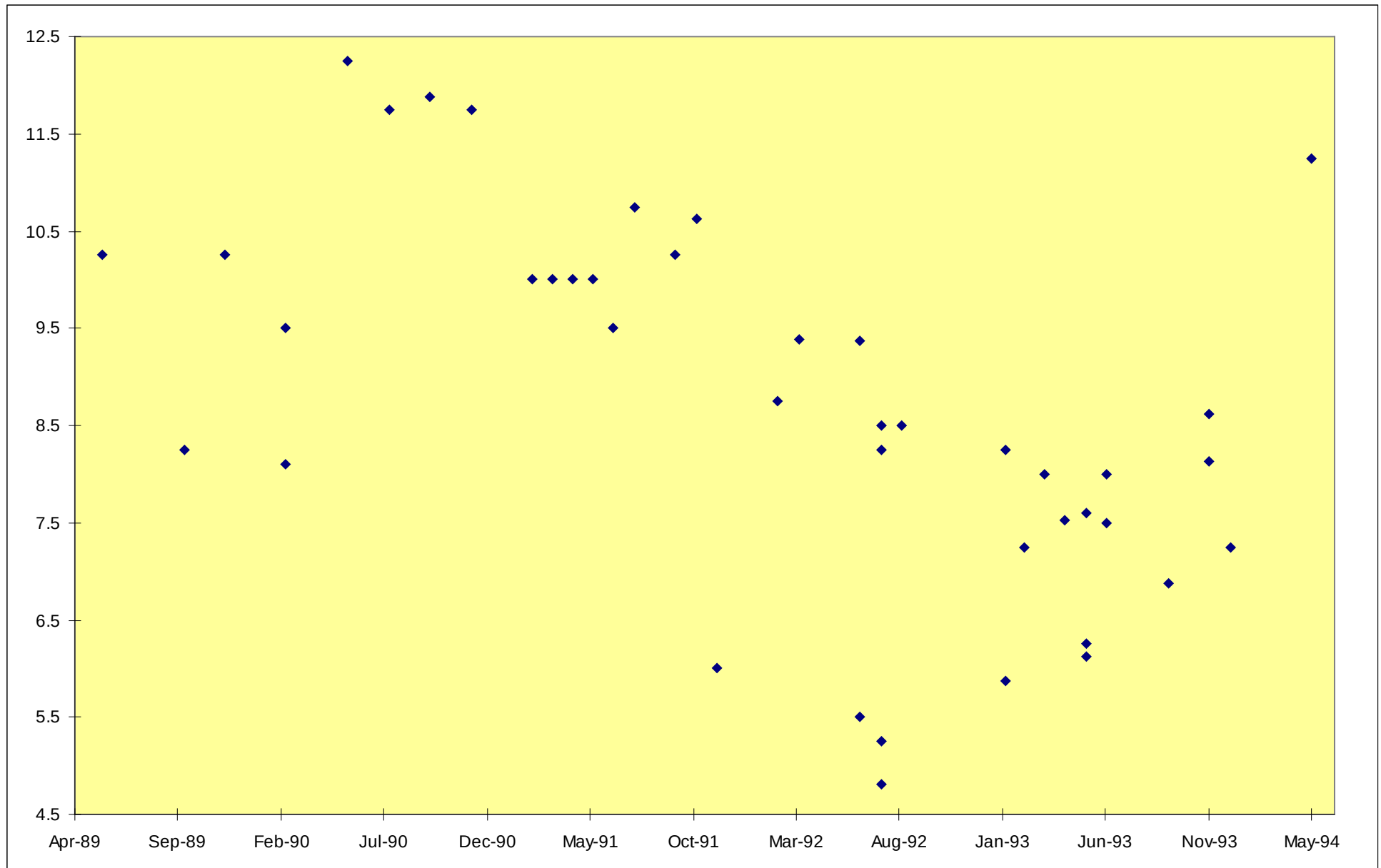
a. DM - German Deutschemark; SCH - Austrian Schilling; PTA - Spanish Peseta; STG - British pound; YEN - Japanese Yen; ECU - European Currency Unit; C\$ - Canadian Dollar; FFr - French Franc.

Source: Elaborated with data from Table B15.

This tendency cannot be explained because of the evolution of interest rates in the respective countries. For example, interest rates actually *increased* in Germany and Austria through the 1990-92 period (falling in 1993), while falling during 1990-93 in Spain, the United Kingdom, and Japan (IMF 1994a). The explanation apparently is similar to what happened with syndicated loans and described in Chapter 4: a country pays an initial price (in the spread or, in this case, in the coupon) in order to enter a market. This initial price for initiation was also paid by Mexico when it issued bonds in U.S. dollars. However, this was not in the coupon of the bond, but in its offering price (88.450%), that had a substantial discount, thus increasing substantially the initial yield. The bonds offered in other currencies had usually no discounts in their price, or it was extremely small. Figures 5.18 and 5.19 confirm that, initially, Mexico paid a high price for entering, which diminished as time went by.⁷²

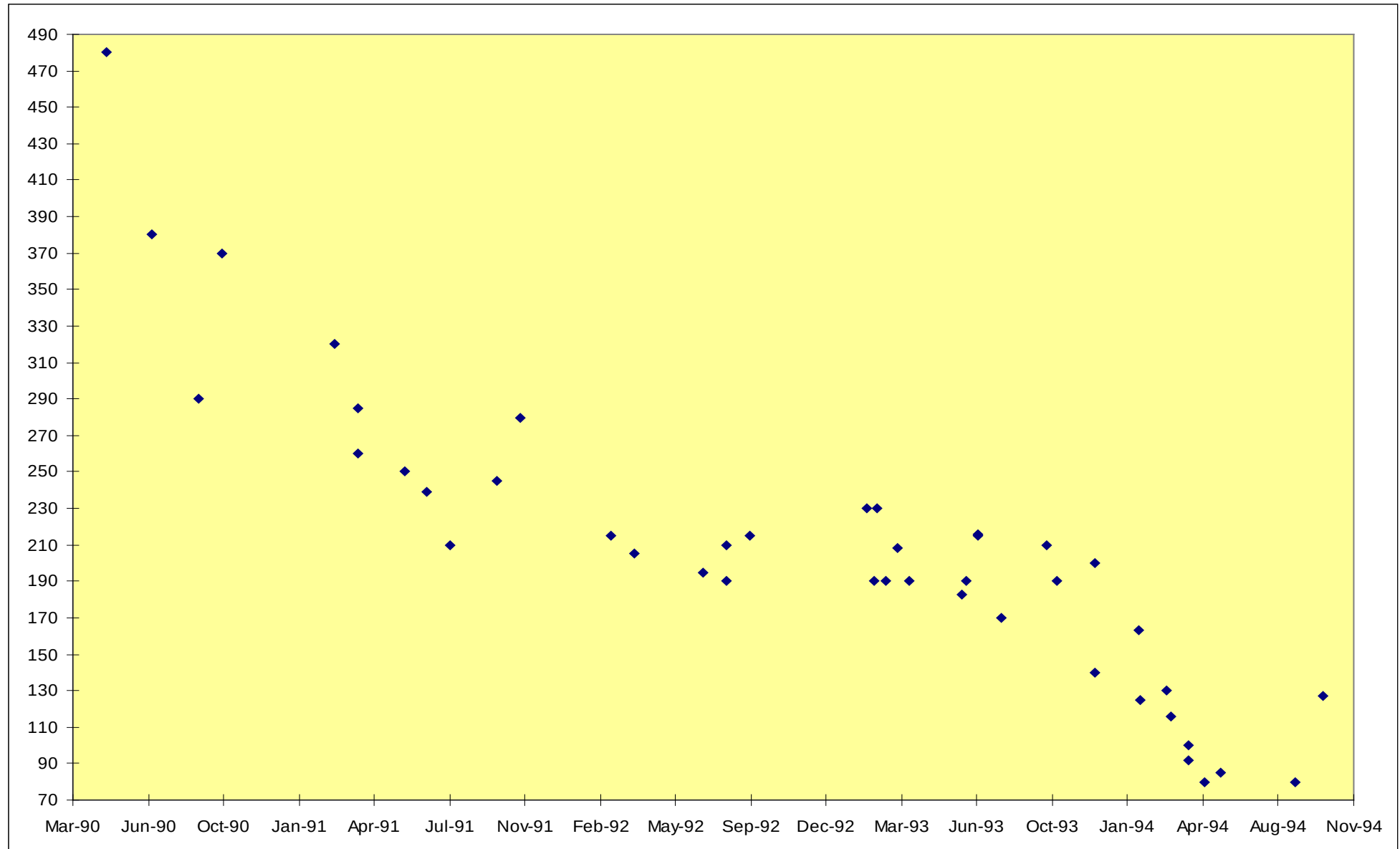
⁷² A trend consistent with the arguments and conclusions of Chapter 4.

Figure 5.18. Evolution of Coupons on Bonds Issued by Mexican Borrowers, 1989-93
(percentage points)



Source: Elaborated with data from Table B15.

Figure 5.19. Evolution of Yields on Bonds Issued by Mexican Borrowers^a, 1989-93
(basis points)



a. When compared to the respective benchmark (i.e. the U.S. Treasury bond of similar maturity).

Source: Elaborated with data from Table B15.

5.9. A NEW CYCLE STARTS: 1995

The needed ILOLR(s) came to the rescue: through a substantial package headed by the United States, Mexico received sufficient resources to adjust its economy and pay the Tesobono debt (the 1994-95 debt crisis is analysed in Chapter 6). With creditors convinced that there was more than enough to reimburse everybody, the liquidity crisis was surpassed. Mexico returned to the capital markets at the beginning of May, a little more than five months after the crisis had begun, but paying a hefty price for borrowing, in terms of the interest rate *and* the maturity. Virtually the maximum spread the government was paying during 1994 was one point above LIBOR. On average, for loans over \$100 million, Mexican public sector borrowers paid an average above LIBOR of 0.644 percentage points during that year.⁶⁹ The first two promissory notes issued by the government, both on May 4, had an average spread of 2.875% above LIBOR. During the first three months that followed re-entry to the markets, from May to July 1995, Mexican public borrowers (Nafin, Bancomext, and the UMS) issued 14 promissory notes and one bond (this first 1995 bond was issued on July 20). All had variable interest rates above LIBOR, and the average spread was 5.024 percentage points, that is, 7.8 times the 1994 average. On the other hand, those 15 securities had an average maturity *inferior* to a year, 348 days, a sharp drop compared to the average 4.3 years of 1994, and even more if compared to the 6.5 years of 1993 (see Table 5.28).

Since the return to the markets, one of the main priorities of the external indebtedness policy was to flatten the payments' horizon:⁷⁰ as the debt acquired through the rescue package implied mammoth payments in the medium-term (see Table B13). Moreover, a sizeable fraction of that debt was expensive. Another priority, that merely complemented the first, was to pay the U.S. Treasury as soon as possible. Not only because of the payments faced in 1997-2000, and its high cost, but as a political gesture: to vindicate the judgement of President Clinton, that had spent considerable political capital supporting the Mexican package, that had been rejected by the U.S. Congress.⁷¹ That objective would be attained until the beginning of 1997.⁷² After that payment was made, the policy of refinancing the debt with debt with a lower cost and/or longer maturity has continued, following the logical behaviour outlined in Chapter 1: a country will always try to pay its debts with more debt, while receiving a positive transfer of resources from the rest of the world (or at least not making a transfer to the rest of the world). This policy that has all the features of being predominant for a long time to come.

⁶⁹ The bonds that were paying a variable interest rate. The average coupon information included in Table 5.28 refers to the securities that had a fixed interest rate.

⁷⁰ In the stabilisation programme outlined on March 9, 1995, the three objectives related to external debt were: 1) roll-over and extend the debt due in the short term; 2) stabilise the financial markets, and 3) recuperate the access to the international capital markets (SHCP 1995b, second quarter, 65). Some months later, the two last goals had been attained -though the financial markets would have bursts of uncertainty until the end of the year.

⁷¹ All the details on the 1995 Mexican rescue are presented in Chapter 6.

⁷² The pre-payment of the debt owed to the U.S. Treasury was fully exploited by Presidents Clinton and Zedillo with the maximum of political fireworks. The resources to finance that payment in advance came from bond that Mexico had issued in the recent months, with longer maturities, lower interest rates, and discharged from any political acrimony from the U.S. Congress. See Chapter 6 for details.

5.10. CONCLUSIONS

Mexico was one in the cluster of countries that utilised in excess the recourse of external debt to finance its development process. However, it was also an important player in the international capital markets because of its size and its perceived potentiality. It would also stand out because of its repeated crises on the external debt front, a contemporary addition to the troubled economic history of the country, that out of its first 120 years as an independent nation had more than one hundred tainted by difficulties with its external debt. Undoubtedly many of the teachings that can be extracted from its recent history as a sovereign debtor can be applied to other countries.⁷³

5.10.1. DEBT CYCLES AND INDEBTEDNESS POLICY

The examination of the recent history, from 1973 to 1995, of the external indebtedness carried out by the Mexican government brings up that, during the relatively brief span of time, no less than six different periods or cycles of indebtedness can be clearly differentiated along the 16 years that the country had open access to the international capital markets.⁷⁴ Periods where debt is always entangled, and playing a prime role, in the economic booms and busts suffered by the country, but where differences are also enormous. Arguably the most notable is that many, with a basic macroeconomics textbook in hand, would have decreed as natural that Mexico ended up in such economic (and debt) crises after the expansionary policies followed in the 1970s and early 1980s, but would have been shocked to discover that a similar fate was reserved for an economic policy that in many aspects followed strictly the rules formulated in that same text; debt crises would seem then an unavoidable curse for Mexican policymakers and the customary end for the different indebtedness cycles.

The first one begins precisely in 1973, and a precise date can even be pinpointed: July 18, when the (then) biggest credit in history was agreed. That unprecedented borrowing was to become the norm, practically uninterrupted for more than three years. The expansionary policies of the Echeverría administration needed much more resources than those available through public revenues and internal savings (see Tables A2 and A3). When the expansionary drive had an impact on the external accounts, there was no option but to borrow abroad. During the last year of the cycle an ever-increasing amount of foreign resources was demanded to finance an additional item that enlarged even further the external imbalances: capital flight.

The situation would not have been more different in 1977-78. Under the tutelage of the IMF, external borrowing had specific nominal limits. But even when the IMF was paid in advance and its programme abandoned in mid-1978, foreign indebtedness continued to be extremely prudent. In fact, the external debt management until the first months of 1981 was remarkable, and perceived as such in the international capital markets, with the credit standing of the country in a continuous upgrading -that would reach its apex in 1980. It can be argued that if Mexico had continued with such a splendid debt management as that observed in 1978-80, it is certain that by 1982 history would have been extremely different. Another country -Brazil, Argentina or Venezuela- could have sparked the international debt

⁷³ See also Chapter 7.

crisis in late 1982 or the beginning of 1983. With bad luck, Mexico would have suffered through the 1980s a fate similar to that of Colombia or Chile, countries (particularly the first) that endured ostracism in the international capital markets just because of their geographical position in the Latin American subcontinent. With good fortune, Mexico would have even avoided that destiny thanks to its proximity to the U.S., which sets it apart from the rest of the countries in the region. That is, a future similar to that of South Korea, which after a brief interregnum as outcasts because of their external debt levels quickly rejoined the international capital markets.

That was not to be. External debt was to be contracted in 1981 in astronomical amounts. Economic policy was far from orthodox in 1977-80, but far from trimming its economic sails when the international economy started to turn sour, the expansionary impulse received a further impetus in 1981-82. Since 1977 economic policy had been established on two key assumptions: low (or even negative) real international interest rates, and high (stable or increasing) real prices of oil exports (see Chapter 3). The former came to an abrupt end in the last months of 1979, while oil prices reached their peak in mid-1981. With domestic economic agents fully aware that, the exchange rate was increasingly unrealistic, a great fraction of external indebtedness went, once more, to finance capital outflows, in a futile attempt to avoid an abrupt devaluation.

If the 1978-80 indebtedness policy can be judged as excellent, the one followed in 1989-93 is undoubtedly superb, particularly because of the amounts registered, and where in two of the four years there was actually a nominal debt *reduction*. However, that good record was smashed in 1994. The government confronted huge political shocks again by financing capital flight with its international reserves, while simultaneously making a massive swap of debt instruments, *de facto* exchanging almost all the internal-medium term debt in hands of hands of private investors (dominated by foreigners) for external and short-term debt.

A shocking common features of all the indebtedness cycles that ended in crises is that external debt became the most important instrument to finance the capital outflows that resulted from speculative attacks against the peso. The external debt stock was increased considerably, and with the extra cost that most of the additional indebtedness had a short-term maturity, to replenish the international reserves, which were systematically drained in a battle that the government always lost. External debt was thus invested time and again in a project that had no positive returns; a debt that had to be serviced and eventually paid, while there was no way that those resources would come from the investment made with it. Perhaps, not surprisingly, several years later José Angel Gurría observed with respect to his efforts to obtain loans in 1981-82: "... with the benefit of hindsight, I wish I had been less successful".

5.10.2. DETERMINANTS OF LENDING CONDITIONS

Of the lending conditions negotiated between Mexico (and other countries) and its commercial lenders, by far the most important was the spread (usually above LIBOR), with the loan maturity far

⁷⁴ That is, leaving aside the 1983-88 period, where Mexico was a pariah in those markets, and that will be studied in detail in the following chapter.

behind, and almost certainly also behind the fees that the leaders of a syndicate would receive. One of the most important conclusions reached in the previous chapter was that the spreads covered by each borrower are determined by international factors, not the domestic conditions of the respective borrower; all integrated in a sort-of band, the spreads of all sovereign borrowers move together through time.

The Mexican experience confirms that conclusion. The empirical evidence available supports the notion that those received by industrialised countries determined Mexican spreads. It also points out that *within* that band the spreads paid by a specific country, as it is the case of Mexico, can be moved by domestic factors. For example, in the 1978-81 period the spreads on Mexican loans went down with *all* the spreads, but their reduction was on average much greater, a reflection of the debt management of the period and the expectations that the markets had on the country's future. Mexico turns out to be a very special case of a sovereign borrower: in the 1973-82 period it passes from being a marginal exporter of oil to one of the most important in the world, a very different case of a country such as Venezuela (a continuous exporter of oil) or Brazil (importer). Coupled with its economic potentiality and importance, its public borrowers were able to negotiate credits that rivalled with those received by industrialised countries (as shown in Chapter 4, see Table 4.4, the highest correlation of spreads on Mexican loans, 0.733, is with those received by Denmark). In certain periods, Mexico is borrowing at lower spreads than France, the star of the Euromarkets. All this record, however, was destroyed with the huge borrowing that took place between in 1981-82.

The case of Mexico also confirms another hypothesis outlined in Chapter 4: when lenders start to perceive problems the spread increases, but within the band shared with other countries. At the same time, while the banks try to get out and cash their loans when due, the nominal debt stock is reduced before the market closes dries up completely (see Figure 4.17), and there is no interest rate that the banks would be willing to accept to grant new loans (see Figure 4.6). Therefore, in the case that bankers were not so receptive to a request for a loan, the country's answer was to retire that proposed loan, not to offer higher spreads (as was the case of Pemex in 1981). However, that action did not alter the spreads that the country would obtain that failure.

Maturity is a factor that gains relevance only when the markets start to get nervous, but not enough to stop lending. The usual middle-of-the-road solution is to lend short, as several banks did for Mexico in 1981-82, thus confirming the so-called short-leash fallacy described in Chapter 4. That fallacy was fully confirmed in the case of Mexico: many banks had their fingers trapped when the Mexican government was forced to shut the payments' window, just a few days or weeks before being able to cash their loans.⁷⁵ Therefore, the Mexican case provides ample evidence that, with some uncertainty, spreads shot up (but within the band delimited by all the countries' spreads) while maturities are reduced; and that, with panic, there is no lending under any circumstances, no matter the interest rate or maturity offered by the desperate borrower.

⁷⁵ During the 100 days that were left of 1982 when the Mexican government declared a virtual default, *every day* an average \$81.44 million dollars were due.

5.10.3. SPREADS TO DIFFERENT MEXICAN BORROWERS

Another conclusion that can be derived from the Mexican experience was that the same implicit sovereign guarantee, that of the United Mexican States, had a different treatment according to the specific borrower, that is, different public borrowers obtained, for example during the same month, different lending conditions. Moreover, the evidence clearly showed that there was no clear pattern, as one borrower obtained better terms than another did in a certain period, and then the situation reversed. The fees of the loan, negotiation skills or fragmentation of the markets (with some lenders concentrating their credits on some specific borrower) may possibly explain some of the differences, but the fact is that risk perception, supposedly a key determinant of the spread, was not one of them.

The conjecture of market fragmentation is deserving of further analysis. There is no other way to explain how different borrowers but, again, with exactly the same implicit creditworthiness can face such a distinct fortune in the Euromarkets. Arguably, the best example of this was the borrowing by different Mexican entities in the Euromarkets in mid-1981: a proposed \$500 million loan by Pemex had to be cut to \$200 million, and another \$200 million offer had to be shelved because the *lack* of demand. On the other hand, a sterling facility acceptance had to be increased from £200 million to £365 million to accommodate excessive demand. Market fragmentation seems a logical explanation for that seemingly illogical behaviour.

5.10.4. THE CETES/TESOBONOS SWAPPING

The Salinas administration has been frequently lambasted by the issuing of such an enormous amount of Tesobonos, which practically substituted the Cetes in hands of private (domestic and foreign) investors. It is usually not taken into account –or it is even ignored- that the issuing of Tesobonos had started in 1989 and, moreover, that in several occasions during the 1989-93 period they were successfully used to defuse nervousness on the exchange rate policy. Arguably, that policy went to unforeseen extremes during 1994, when equally unforeseen circumstances (particularly in the political arena) caused enormous uncertainty in economic agents. It is open to question what would have happened had one of the main architects of that policy, Finance Minister Pedro Aspe, been ratified in that post in the Zedillo government. That is, of a person known to the markets and, moreover, with a solid credibility on the stance of rejecting an abrupt devaluation of the peso. What can be ascertained is that when the Zedillo government decided to devalue, it apparently did not take into consideration that shaken investors would refuse to roll-over their Tesobono holdings.⁷⁶ It is also a fact that a fatal flaw of the Tesobonos was their short-term maturity, and that the management of the Cetes/Tesobonos swapping policy demanded a superb management of expectations. It can be argued that the Salinas administration was successful on the matter, and that the Zedillo government very quickly paid the cost of a bungled devaluation

⁷⁶ It was not alone thinking that, see GAO (1996, 100) and Chapter 6.

CHAPTER 6

THE MEXICAN DEBT CRISES

6.0. INTRODUCTION

Sovereign borrowers cannot go bankrupt as private firms frequently do. However, the relations between a country and its creditors may be far from smooth, and a prime example of this fact is Mexico. Arguably, it represents the best case to analyse the bumpy relationship between a sovereign and private international capital markets in the second half of the 20th century. Just the fact that the country has suffered three debt crises in less than 20 years is sufficient to call into question the competence of the Mexican government on the matter of external indebtedness. Moreover, the country has the dubious honour of triggering in 12 years two crises that caused global alarm and fear for the soundness of the international financial system.

Undoubtedly, the most noted crisis is the one that started in August 1982; the one that would become global, and that would dominate the economic horizon of many countries -particularly in Latin America- for the rest of the decade. The crisis that exploded in December 1994 was arguably just as notorious -even if its span was considerably shorter. However, that was not the *second* debt crisis suffered by Mexico in its modern history, but actually the *third*.

A debt crisis has never been included among the travails suffered by the Mexican economy during 1976-77. Arguably, it was overlooked as it was quickly left behind. Mexico faced a brief period of ostracism from the capital markets, but confidence on the payment capabilities of the country was restored in just a few months. The resources that the country received from the U.S. government, the IMF, and even its commercial creditors, were enough to avoid default or rescheduling of any debts. While the government never talked openly of the necessity of a rescheduling, neither did any of its creditors. The country was very near to default, but it never happened. Therefore, it can be argued that, whatever happened during 1976-77 was not a debt crisis at all. However, all the features just described not only fit what happened at that time; they also accurately characterise what was to happen almost two decades later: in 1994-95, where nobody would challenge that a debt crisis took place.

The in-depth analysis of the first and third crisis on their own is a worthy exercise: the 1976-77 one because it has never been mentioned at all in the Mexican economic history literature; as if it had just never happened at all.¹ And the 1994-95 crisis because it is so recent that it represents a history waiting to be written. While the studies on the 1982-89 Mexican debt crisis are numerous, a very particular aspect will be explored in detail in the chapter: the relationship between Mexico and its commercial creditors and how it evolved throughout the crisis. Each one of the three sections in this chapter is devoted to study each one of the crises.

The Mexican experience in debt crises offers plenty of lessons on the matter. That is the reason why this chapter, unlike all the previous ones, offers no conclusions: the lessons derived from what is presented in this and the previous chapters will be the purpose of Chapter 7.

¹ The works by Tello (1979), Whitehead (1980), Solís (1981), Green (1988, 1998), Buffie (1989), Gurría (1993) and Cárdenas (1994), just to mention some examples, do not even make reference to a debt crisis during the period.

6.1. A SHORT-LIVED AND UNNOTICED LIQUIDITY CRISIS: 1976-77

Fundamental disequilibria that had been accumulated through the 1970s (see Chapter 3) erupted in an abrupt devaluation on 31 August 1976, after the peso had suffered strong speculative attacks for several months: capital outflows reached \$1.1 billion during the second and third quarters of the year (Table 6.1). While an official account points out that the financial authorities were unable to step up the pace of foreign borrowing to replenish the dwindling reserves and sustain the peso (Federal Reserve, 1977a, March, 220), others assert that the government considered that the external indebtedness necessary to do that was excessive (Echeverría 1976, 864; Banco de México 1977a, 25). Whether it was unable or unwilling to sustain the 12.50 peso-dollar parity (fixed for 22 years), the government allowed the peso to float, initially from a floor of 20.5 pesos per dollar. A few days later, on September 12, a new exchange rate was fixed, at 19.90 pesos (sell) and 19.70 (buy) per dollar.

Table 6.1. Quarterly Capital Flight, 1970-76^a
(million dollars)

Quarter	1970	1971	1972	1973	1974	1975	1976
1 st	25.2	-27.7	152.8	171.3	198.5	49.6	153.1
2 nd	-113.6	-106.8	-122.4	244.6	22.8	104.1	1116.1
3 rd	-155.2	-289.0	-510.1	245.7	194.5	121.2	1077.0
4 th	-222.4	100.8	-117.8	28.1	389.8	584.8	623.7
Annual Total	-466.0	-322.7	-597.5	689.7	805.6	859.7	2969.9

a. A negative sign indicates a capital inflow.

Source: Constructed with data from Table A26.

Considering the crisis' magnitude and the low level of reserves (see Table A23), resources were sought from several quarters. Negotiations were started with the IMF, but while the terms of a stabilisation programme were agreed, emergency negotiations with the U.S. took place. Bank of Mexico had a swap arrangement in place with the Federal Reserve since mid-1967, which by September 1976 allowed for a maximum drawing of \$360 million (see Table A24). However, the full amount had been used in April and remained unpaid (see Chapter 5). The government had another arrangement, in place since the early 1940s, with the Exchange Stabilisation Fund (ESF) of the U.S. Treasury Department, which allowed a maximum withdrawal of \$300 million.² As more money was needed, on September 20 the Treasury and the Federal Reserve agreed to a special arrangement, making available to the Bank of Mexico up to \$600 million in interim financing, to be paid as soon as the IMF money arrived, with \$420 million being provided by the Treasury and the rest by the Federal Reserve. Of that amount, \$365 million were drawn in early October on the Treasury (\$150 million from the ESF), while during the same month the \$360 million swap that had been outstanding for six months was paid to the Federal Reserve (Wall Street Journal 1976, 39; Federal Reserve, 1977a, March, 220; U.S. Treasury, 1977a, March, 82). In late September the Mexican government requested from Bank of America (the agent) to accelerate

² Other swap arrangements were in place with several Latin American countries, but their combined amount was dwarfed by the U.S. lines. For example, in 1970 the full amount of the swaps with 14 countries totalled a little more than \$34 million dollars, while the U.S. agreements combined \$230 million (Banco de México 1970a, 35). The Bank of Mexico did not even consider those small lines in its secondary reserves. In fact, for many of the small Latin American countries, the country played the role of Big Brother that the U.S. had with respect to Mexico.

the syndication of a \$800 million loan (detailed below), and in early October it reportedly approached several of the banks that were acting as managers in it to and asked for a \$300 million, 90-day loan, as an advance. Apparently they were turned down (Belliveau 1977, 47, 50).

While this financial jugglery took place, capital flight continued. Bank of Mexico at first stepped up its dollar sales but, after sustaining a further loss of reserves, the peso was allowed to plunge again (see Figure 6.1). Precisely the same day the peso collapsed, October 27, the IMF's Executive Board approved the stabilisation programme terms. Along three years, Mexico would receive a total of 837 million SDRs (equivalent to 963 million dollars). On the first day of November, Mexico received 125 million SDRs, and two days later a further 60 million (a total amount equivalent to 210 million dollars). That sum was immediately used to partially finance the payment of the \$365 million owed to the U.S. Treasury (ibid; Banco de México 1977a, 25; IMF 1977b, 99).

However, the peso continued under attack. Economic uncertainty was nourished further by the government changeover that would take place on December 1. Rumours of capital controls or freezes on resident bank accounts were accompanied by those of an impending coup d'état by the army. Again, in November, the Bank of Mexico drew \$150 million on the just-paid swap line with the Federal Reserve and the \$300 million from the ESF. Because of increasing capital outflows and the likelihood that they could augment in the days to the political transition, the central bank announced over the November 20-21 weekend that it was withdrawing temporarily from the market. To deter additional speculative selling of pesos, commercial banks and other credit institutions were prohibited from trading for their own accounts, except to cover existing commitments. Instead, stockbrokers were authorised to act as foreign exchange dealers for the purpose of executing essential transactions. A technical shortage of peso balances quickly developed, and the parity bottomed out on November 23, and started to appreciate in nominal terms (Figure 6.1).

Not surprisingly, the attitude of international banks to the Mexican crisis mirrored the one displayed by domestic economic agents. Jose López Portillo began his six-year term as President the first day of December with the international capital markets practically closed. However, that fact was far from being a publicised or even an evident one. Borrowing apparently had continued uninterrupted, according to quarterly figures (see Table 5.4). Three loans, totalling \$230 million, were signed during September, after the crisis had erupted, and gross borrowing in the Euromarkets during the fourth quarter of amounted to of \$800 million, much higher than the nominal amounts during the same period of 1973 or 1974. And yet, the complaint is clear in López Portillo's memoirs:

The banks were not only not lending to us, but also cashing their loans and trying to control us. We had to get out of the trap (1988, 480).

And also in the official account presented by the Ministry of Finance on the 1982 debt crisis and its aftermath. An interesting comparison is made with respect to what had happened some years before:

(1976) ended in a balance of payments' crisis. It is not possible to discuss here the 1976 crisis. However, it is important to point out the following: the observed collective behaviour of the creditor banks was similar to what was to happen years later, in 1982: one day the banks lent without hindrance, and the following day they restrained all their

credit. In that sense, what happened in 1976... was a warning of what would later take place (SHCP 1988, 29).³

It is looking at monthly borrowing figures when the alleged credit-crunch becomes visible: there was no borrowing during October. However, it can be argued that Mexican public borrowers were not going every month to the Euromarkets (for example, in 1976 there was no borrowing either in January or June), and in November a syndicated loan of \$800 million took place. However, during the following three months there is practically no commercial borrowing, in sharp contrast to similar periods of previous and following years (Table 6.2). López Portillo's comment appears to indicate that attempts to borrow from December of 1976 to February 1977, his first three months in office, were fruitless.⁴

Table 6.2. Gross Indebtedness by Mexico in the International Capital Markets, 1973-80
(million dollars)

	In the Syndicated Loan Markets						
	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
December	300.0	379.0	40.0	0.0	103.6	515.0	397.0
January	500.0	0.0	0.0	0.0	20.0	649.0	0.0
February	0.0	29.0	110.0	19.8	93.4	65.0	0.0
	In the International Bond Markets						
	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
December	0.0	0.0	13.7	0.0	146.5	0.0	0.0
January	0.0	50.0	11.5	0.0	0.0	100.0	37.2
February	0.0	75.0	50.0	0.0	189.0	0.0	0.0
Total	800.0	533.0	225.2	19.8	552.5	1329.0	434.2

Source: Constructed with data from Tables B16 and B17. Source: Constructed with data from Tables B16 and B17. Source: Constructed with data from Tables B14 and B15.

However, the November \$800 million loan is puzzling.⁵ Not only because of the amount (it was the biggest received until then), but also because of the banks involved. Several of the most important creditors of Mexico, undoubtedly well versed in the prevailing economic situation, were managers. One possibility could be that the credit was a gesture of goodwill and/or confidence to the (outgoing and incoming) government. However, that notion clashes with the drying up of credits that occurred after November. Another possibility is that the loan was a form of *defensive lending*: to ensure that debt service would not be interrupted during the December political transition. Moreover, an IMF-sponsored stabilisation programme would provide a crucial *imprimatur*; an assurance for bankers that Mexico would adjust (thus increasing its creditworthiness, see Chapter 1). Precisely, the IMF support was a *condition demanded* by bankers to extend the \$800 million loan (Belliveau 1977, 50; Euromoney 1977c,

³ See also other documents from the SHCP (1977b, Fourth Quarter, 2-4; 1980a, 119) for other official testimonies of that attitude of the commercial banks during 1976.

⁴ And as a former Finance Minister (1973-75), the President was well aware of the lavish reception that Mexican borrowers had received in the capital markets after 1973. In his first state visit to the United States, López Portillo even queried President Carter about the possibility of the U.S. government influencing the banks' attitude towards Mexico. Carter answered he had very little influence to do that. López Portillo (1988, 544).

⁵ A detailed account (and apparently the only one) of the negotiations of that loan is presented by Belliveau (1977).

91). It was not a coincidence that the Fund's Executive Board approved the Mexican programme at the end of October, and that the credit was signed in November.⁶

The composition of the syndicate that provided the loan confirms this notion: out of the 19 banks that acted as managers, 11 had participated similarly as managers in at least four loans to Mexico between 1973 and October 1976; only for two banks (both Swiss) it was their first syndicate participating as managers (see Table B17). In total, 55 banks integrated the syndicate, a very low figure when considering the amount lent. Out of the total of banks participating, 19 were managers, and 15 co-managers, a very high proportion -62 percent- of the total. In fact, that loan is the only one (out of 25 provided to Mexico in the period 1971-77) where the sum of managers and co-managers is *greater* than the number of banks acting solely as providers (Table 6.3).

Table 6.3. Selected Eurocurrency Credits to the Mexican Public Sector, 1971-77^a

Borrower	Date	Amount	Managers	Co-Managers	Providers	Total
NAFINSA & BANOBRAS	19.04.71	\$100.0	4	-	16	20
CFE, NAFINSA & PEMEX	20.12.71	\$120.0	1	-	7	8
BANOBRAS	18.07.73	\$300.0	4	-	42	46
UMS	16.01.74	\$500.0	5	-	48	53
CFE	05.74	\$100.0	3	-	27	30
BANOBRAS	20.06.74	\$100.0	4	-	20	24
UMS	12.74	\$170.0	6	-	25	31
UMS	16.05.75	\$200.0	6	7	58	71
PEMEX	21.05.75	\$135.0	6	-	33	39
NAFINSA	07.75	\$100.0	4	4	29	37
TELMEX	08.75	\$100.0	3	5	16	24
BANOBRAS	29.08.75	\$100.0	8	-	27	35
PEMEX	10.75	\$380.0	9	7	37	53
NAFINSA	10.75	\$150.0	4	3	44	51
UMS	11.75	\$300.0	10	4	40	54
BANOBRAS	03.76	\$220.0	6	13	23	42
PEMEX	05.76	\$300.0	13	7	29	49
NAFINSA ^b	08.76	\$210.0	10	6	22	38
FINASA	09.76	\$170.0	8	4	41	53
UMS ^b	11.76	\$800.0	19	15	21	55
PEMEX	21.03.77	\$350.0	14	10	36	60
BANOBRAS	05.77	\$150.0	6	2	16	24
NAFINSA ^b	07.77	\$425.0	17	5	60	82
BANCOMEXT	08.77	\$100.0	8	-	13	21
UMS	11.77	\$1200.0	33	12	74	119

a. 25 out of the 28 credits of \$100 million or more given to Mexico in the 1971-77 period (of which the Tombstones were located).

b. In Table B14 appears subdivided in two different credits, because of different spreads or currencies.

Source: Data from Table B14 and Tombstones from each one of the credits.

The uncertainty on the future of Mexico had gone beyond domestic economic agents and the banks most involved in dealings with the country, reaching even the relatively small banks that participated in the Euromarkets. Some banks were attracted into the loan as co-managers, but many

⁶ This behaviour coincides with the conception that commercial bankers had of their role and of the one that corresponded to institutions such as the IMF: they lent while the country was creditworthy; organisations such as the Fund (or the BIS) entered the scene only if the credit status of the borrower had deteriorated. When creditworthiness was restored, commercial lenders would go in again (see Chapter 4 for details). At a certain point in the negotiations, Morgan Guaranty Trust (supported by

regional U.S. banks (usually enthusiastic to enter syndicates for Mexico) refused to join. Unable to sell part of their initial loan share to other banks, as was routine with other syndicates, the credit managers were left clutching the baby. They had to do so, if the aim of the loan was to protect their own interests. Only about a quarter of the total loan was taken by co-managers and providers –half of the normal percentage for a large syndicated credit (Belliveau 1977, 52).

Another unusual feature of the loan was the size of the commitment fee paid. Information on fees in syndicated loans is scarce, but that fee would be the highest in the 1975-80 period (see Table B20).⁷ One explanation is that the management team tried to sweeten the loan in order to attract, apparently unsuccessfully, more banks to share the burden of the credit. The other (that can be supplementary to the first one) was that the managers of the loans exploited the need for resources of the Mexican government, and negotiated those large fees to increase the credit's yield.

Considering the \$800 million loan as defensive lending, then the Mexican government was ostracised from the international capital markets for almost half a year, from October 1976 to the second half of March 1977.⁸ It can be ascertained that the strategy adopted by the commercial banks was the correct one. It is virtually a fact that, without those additional resources, the government would have declared default on its external debt, as the previous step to request a rescheduling.

On December 20, the authorities lifted the prohibition against Mexican banks' trading for their own account. For several weeks the peso held firm. The reserve position had improved sufficiently to repay in December \$150 million of the \$300 million drawn on the U.S. Treasury, but not enough to do the same with the \$150 million owed to the Federal Reserve (Federal Reserve 1977a, March, 200-221). In mid-January, increased pressure on the peso forced the parity to depreciate again to the nominal levels observed at the end of November (Figure 6.1). It would be until mid-February when the currency would stabilise. However, by then the country had been for three months without funds from the capital markets. Unfortunately, there is no quarterly data on the debt service during 1977 (information available since 1978, see Table B6). Looking at the 1978 data, and the debt service covered during the whole of the years 1976 and 1977, a very conservative estimate would be that total debt service from October 1976 to March 1977 amounted to at least \$1.8 billion dollars. Using that number as a base, commercial creditors would have received a minimum net transfer of \$700 million taking into consideration the \$800 million loan.⁹ During the last days of February and the first days of March the magnitude of the debt service reached a critical point, and the country was on the brink of default (SHCP 1977b, second

Bankers Trust and Chemical Bank) demanded copies of the IMF agreement as a condition to participate in the loan. That demand was later withdrawn.

⁷ The commitment fee was 0.750%, while the participation fee ranged from 0.125 to 0.625%. See World Bank, 1976a, fourth quarter, 213-214. There is only aggregate information available for 1975-80 because that publication from the World Bank ceased to be published after 1980.

⁸ And the period may have been longer in reality, if for example the loans signed in September had been agreed to before the devaluation, and therefore too advanced to call off.

⁹ That is, the commercial banks received during the semester a debt service for \$1.5 billion dollars. It must be emphasised that this is a conservative estimate. In 1977, 85 percent of the public external debt was owed to commercial banks (Gurría 1993, 233). Considering that the total debt service was \$1.8 billion, the banks' lion share would be between \$1.5 and \$1.6 billion. It is important to point out that in 1976, a big chunk (almost 20 percent, see Table B1) of the public external debt was short-term, and therefore it represented a heavy burden if creditors refused to refinance or roll-over it when due (as would be the case if the country was facing trouble). During the first quarter of 1978, the service of the long-term external debt was \$994.6 million dollars (a figure undoubtedly much higher if short-term debt was included). Long-term debt service during 1976 was \$2.2 billion, and the respective figure for 1977 was \$3.5 billion (see Table B4). Considering short-term debt (and the attitude of the banks during the period), a \$900 million service per-quarter figure for the end of 1976 and beginning of 1977 is far from overblown.

quarter, 4-5). The Federal Reserve \$150 million swap was rolled-over for a further three months. It can be ascertained that, without the \$800 million loan, default would have occurred.

Problems faced by the Mexican private sector to service their external debt sent a (correct) signal that the government might follow soon:

Fundidora de Monterrey, Mexico's second largest steel company in which the Mexican government has a 38% stake, is in serious trouble and cannot meet the interest or principal on its \$370 million loans. Reportedly, it wants a moratorium until July and then a five year extension on repayments... *Concern is growing over the ability of Mexico to service and repay its \$16 billion bank loans. The Mexican government is endeavouring to keep the affair as quiet as possible.* (Euromoney 1977a, 7; Emphasis added).

The closure of the private capital markets -and with it the liquidity crisis-, however, would come abruptly to an end just a few weeks later. The banks would return with an even bigger than their previous enthusiasm for Mexico, when it was revealed that the country had an enormous potential as an oil exporter. That oil card was exhibited to all the players by the government precisely with that objective:

... we went out to the world asserting with a very loud voice that we had oil, *lots of oil. First to our creditors*, so that they would not grow impatient; afterwards to the rest of the world... *It worked.* The IMF ceased to be irascible, and we could agree more convenient conditions... *the creditors not only were tranquillised and renegotiated our debts, but they also offered us new credits* (López Portillo 1988, 482. Emphasis added).¹⁰

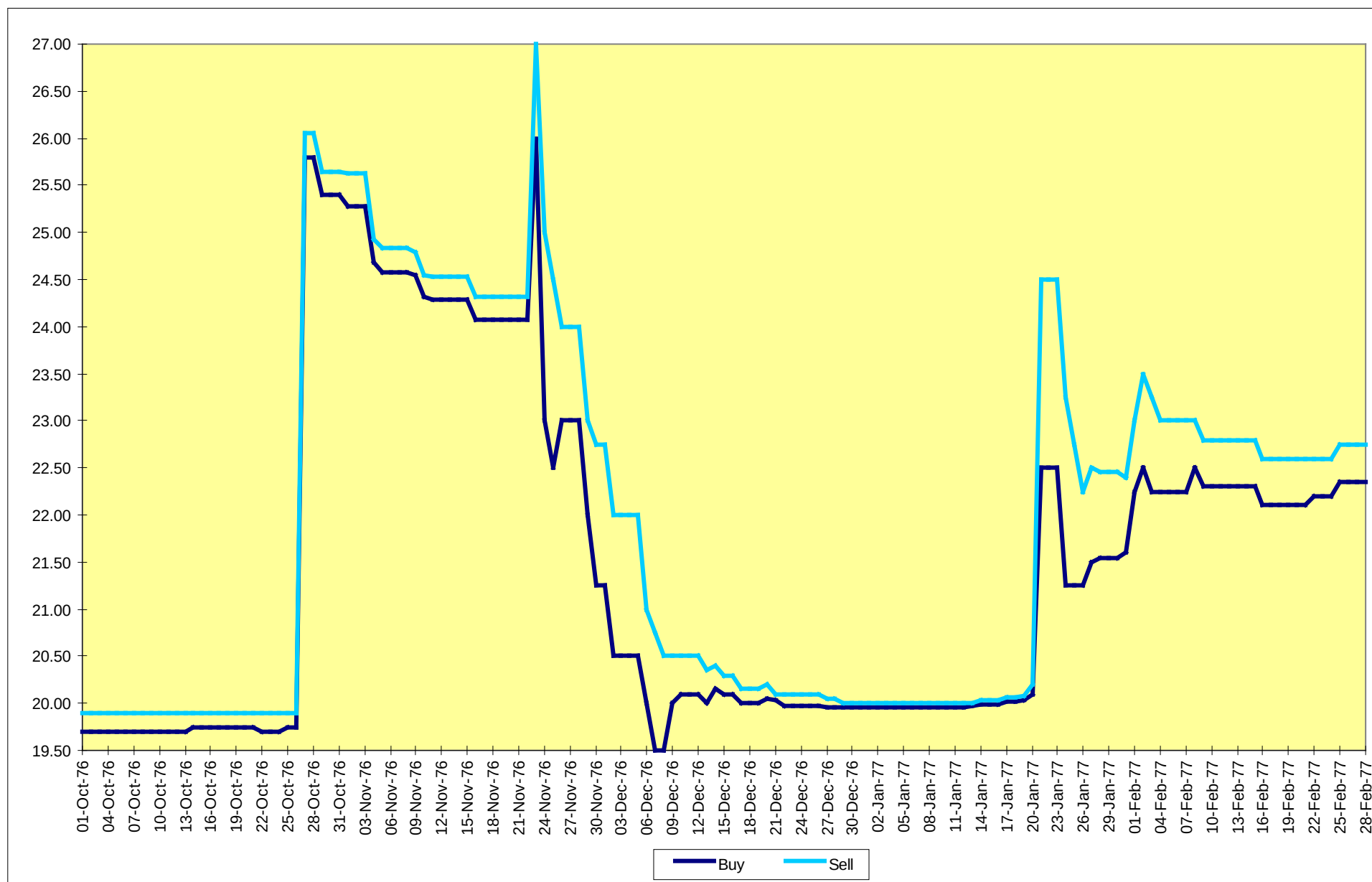
When the oil wealth of Mexico was fully unveiled (see Chapter 3 for details) the response of the banks was enthusiastic. In February 1977 the government predicted that five years later proven reserves of the mineral would reach 30 billion barrels. On March 21, a \$350 million loan, precisely to Pemex, marked the successful return of Mexico to the Euromarkets.¹¹ In April, the two \$150 million loans owed to the Federal Reserve, and the Treasury were paid.¹² The crisis had ended.

¹⁰ See also Maxfield (1990, 125) for similar quotes by López Portillo.

¹¹ Euromoney (1977c, 93) even speculated that the February 1977 announcement by the General Director of Pemex (see Chapter 3) aimed to increase the attraction of the loan, that was already being marketed.

¹² The Treasury loan was due in November, thus it was paid six months in advance (Banco de México 1978a, 30). As Chapters 3 and 5 describe in detail, even the IMF, in mid-1978, was also to be paid in advance.

Figure 6.1. Peso-Dollar Exchange Rate, October 1976 to February 1977
(pesos per dollar)



Source: Elaborated with data from Banco de México(d).

6.2. A PROLONGED AND VERY NOTICED CRISIS: 1982-90

On Friday, August 13¹³, Finance Minister Silva Herzog travelled to Washington to inform in detail the U.S. government and the IMF of the dire Mexican situation (Kraft 1984, 13-19; SHCP 1988, 109). As had occurred in the 1976-77 crisis, contingency financing was needed while negotiations took place with the IMF, and on this occasion also with commercial creditors.¹⁴ However, the amount needed was much higher. During the weekend that followed, loans for \$2.0 billion were arranged. \$1.0 billion from the Commodity Credit Corporation (later increased to \$1.7 billion), and another billion from the Department of Energy, that would buy Mexican oil for the Strategic Petroleum Reserve (SPR).¹⁵ During the weekend, Volcker arranged that -with the U.S. contributing half- several central bank members of the BIS provided a loan for 1.85 billion¹⁶ (agreed in principle on 18 August). A total loan for \$2.0 billion (later increased to \$2.7 billion) was negotiated with the Paris Club. That is, \$7.25 billion. However, only \$1.0 billion was immediately available: the Exchange Stabilisation Fund (ESF) of the Treasury provided that amount immediately (to be paid with the money to come from the SPR). On 29 August -when the guarantee for the BIS loan was provided- around \$620 million were received (a third of the total loan).¹⁷ However, the rest of the BIS money was to take weeks, while the credit lines from the CCC and the Paris Club were to ensure that Mexico would continue to import basic foodstuffs and industrial goods.

The alternatives to deal with the banks were basically three: 1) declare a unilateral default, 2) be declared in default by them when a payment was not received, or 3) reach a negotiated default. The final outcome was the same, but the third option was chosen to present the international financial community a facade of responsibility, which was expected to be taken into consideration in the negotiations that would necessarily follow (Gurría 1993, 37-38).¹⁸ Therefore, the quest for liquidity aimed to obtain resources to cover the debt service owed to commercial creditors until an agreement was reached. That objective was attained. On August 19, just few hours after the BIS had agreed the terms of the bridge loan, Silva Herzog held a round of informal meetings with top officials from several big U.S. commercial banks. The following day, in the building of the New York Federal Reserve, he requested to the representatives of 115 banks (around 800 had been invited¹⁹) a three-month moratorium on principal payments and the formation of a committee to negotiate on their behalf (interest payments continued punctually). The non-rejection of the proposals was taken as an acceptance, and so informed publicly (Kraft 1984, 19-22). That day, after covering punctually all the scheduled payments due, Mexico had just over \$180 million in foreign reserves. The following Monday, August 23, around \$300 million were due. The total for the rest of 1982 was \$8,144.4 million dollars (SHCP 1988, 109), which necessarily had to be rescheduled. The international debt crisis had begun.

¹³ This subchapter continues where section 5.3 of Chapter 5 concluded.

¹⁴ Although creditors had supported Mexico with the November 1976, it was not a co-ordinated effort by all banks.

¹⁵ The hair-raising negotiations conducted during the so-called "Mexican weekend" are splendidly chronicled by Kraft (1984, 14-19) and analysed in depth as a case study by Leeds and Thompson (1987).

¹⁶ That loan was to be for \$1.5 billion but, in a gesture of goodwill to Mexico, Spain contributed with \$175 million to the pot, which were matched by the US (Kraft 1984, 19).

¹⁷ Initially the loan was to be guaranteed with gold. When it was discovered there was not enough, oil was proposed as collateral. However, it took several days to arrange because Pemex had guaranteed several loans with future oil receipts (Kraft 1984, 28).

¹⁸ Of course, while that was certainly a "responsible" attitude, it would be very difficult to argue that the indebtedness policy that had been followed since the second half of 1981 was equally commendable.

6.2.1. THE FIRST, AND BLUEPRINT-DRAWING, MYRA, 1982-84

The 20 August meeting marked the beginning of a completely different relationship between Mexico (and many other HICs) and its commercial creditors. Previously, the meeting point between both parties had been the international capital markets. This changed to a negotiating table. That is, a framework of a bilateral monopoly such as that depicted in Figures 2.1 and 2.2: Mexico wanted to minimise the net transfer of resources to its creditors, by negotiating the highest possible amount of “fresh” credits (in fact mere debt refinancings); the banks’ aim was to maximise that transfer. But while Mexico represented a single entity as a negotiator, the commercial banks had to develop one, and quickly did so. In the afternoon of 20 August, the so-called advisory committee of creditor banks held its first meeting, with representatives from 14 banks.²⁰

An arrangement was reached with the IMF on 10 November.²¹ A three-year programme beginning in January 1983 was approved (IMF 1983f, 21 March, 89). During that period Mexico would purchase from the Fund SDR3,410.63 million (approximately \$3.9 billion). However, a potential problem was that the resources channelled to Mexico from the U.S. government, the BIS *and* the IMF could go directly to the banks. The Fund had recently experienced situations, though on a smaller scale, where the banks got money out (cashing loans due or pulling out short-term lines) while the Fund was putting it in. That had motivated the need of greater IMF funds from Turkey in 1979; the failure of a Fund adjustment programme in Romania during 1981, and vanished most of the reserves of Hungary, a candidate for IMF membership, in 1982 (Field, et. al. 1983, 38). To avoid a similar fate for Mexico, Jacques De Larosi re (the IMF managing director) met with the top brass of the banks on the Advisory Committee at the New York Federal Reserve building on 16 November. He outlined what the Fund considered were the Mexican financial requirements for 1983: \$8.3 billion. To fill the gap, the banks would have to lend \$5.0 billion. If the banks had not put together the money by December 15, he warned them, the IMF would not support the Mexican programme, and the private creditors would be left on their own to settle their debts with Mexico. De Larosi re obviously considered that if the banks were not forced to put in some money, the Mexican stabilisation effort would fail, probably smashing along the international financial system.

The IMF emerged as a necessary co-ordinator for the banks, organising them into lending more: a collective action that, although in their interest to follow, no bank would take individually. On the contrary, banks had the incentive to, whenever possible for them, cash in their loans and pull out, draining the resources available to finance the adjustment effort. The Advisory Committee did not have the power to avert that outcome. What was needed was an external leader. The IMF filled the void and attained a new international role.²² And while De Larosi re had shown the stick to the banks, Volcker -

¹⁹ That not even a precise figure on the number of Mexican commercial banks is available is a clear indication of the swift indebtedness followed in 1981-82. Estimates ranged from 500 to more than 1400 (Kraft 1984, 21; Buffie 1990, 521); 784 were invited to the New York meeting (SHCP 1988, 79).

²⁰ Citibank, Chase Manhattan, Chemical Bank, Morgan Guaranty Trust, Bank of America, Manufacturers Hanover Trust, Bank of Tokyo, Lloyds, Soci t  G n rale (Belgium), Bank of Montreal, Swiss Bank Corporation, Deutsche Bank, and Banamex (Mexico). Citibank became from the beginning the *de facto* head of the committee (Kraft 1984, 22-23).

²¹ The nationalisation of the Mexican banks and the imposition of comprehensive exchange controls at the beginning of September 1982 (see Chapter 3) delayed the negotiations.

²² The international debt crisis brought a complete change of tune from the free marketers, allergic to non-market interventions, dominant in the Reagan administration. See Chapter 4 and Garritsen de Vries (1987, 222).

working in tandem with him- presented a carrot. In a speech in Boston, the Fed chairman, in the most elliptical way, indicated how the Fed would deal with banks that lent more to Mexico and other HICs:

In such cases where new loans facilitate the adjustment process and enable a country to strengthen its economy and service its international debt in an *orderly* manner, *new credits should not be subject to supervisory criticism*²³ (emphasis added).

That is, considerations of banking prudence would not be allowed to prevail over the objective of keeping HICs afloat. After negotiating strongly among themselves, the banks agreed to lend, on a pro-rata basis, 7 percent of their exposure to Mexico in August 1982. Under that agreement, Mexico was given chance to adjust and (eventually) resume a normal debt service, while the banks slowly reduced their exposures by receiving a net transfer of resources (the 7 percent was well below the Prime and LIBOR interest rates, that averaged 14.9 and 13.4 percent, respectively, during 1982). Finally, and most important, Mexican loans were regarded by regulators as "performing". Therefore, incredibly, earnings and profits were untouched by the crisis.²⁴

But what was very attractive, under the circumstances, to the big lenders, was hard to sell to the medium and small ones, not so exposed. Several had the incentive to put aside reserves, cut their losses, and pull out of the forced lending exercise. Big banks and authorities alike helped to twist arms (Kraft 1984, 53; Cohen 1986, 219). The Fed and the IMF embarked also in joint arm-twisting at international level. The U.S. pressured the Japanese finance ministry to support the strategy and pressure Japanese banks (Stallings 1990, 19-20), while the governor of the Bank of England spearheaded the effort in Europe:

Gordon Richardson, of the Bank of England, arranged a session for de Larosière with all the leading private bankers of Britain and the Continent. Sir Jeremy Morse of Lloyds raised contributions from British banks at a session compared by one of those present to a church charity drive. Wilfried Guth of the Deutsche Bank did the same with banks in Germany and Scandinavia. British and French bankers... explained matters to the bankers of Kuwait and Saudi Arabia. (Kraft 1984, 53).

But even with all that pressure some small lenders did not lent the 7 percent agreed, as they had little to lose even if Mexico defaulted, and there was no clear punishment for not participating²⁵. Therefore, they had much to gain and little to lose. The Advisory Committee members had to chip in an additional \$200 million to reach the \$5.0 billion figure. The loan was signed in New York on 3 March 1983, representing the first "involuntary" syndicated loan to a sovereign borrower in history.²⁶ In total,

²³ Quoted in Field, et. al. (1983, 40) and Kraft (1984, 49). Precisely on December 15 the Comptroller of the Currency sent the chief lawyer for the Banks' Advisory Committee a letter that confirmed that the banks would be given ease in the application of the rules if they participated in the lending accords sought by the IMF.

²⁴ Under the U.S. regulations, while interest arrears are less than 90 days, a bank can continue to account interest payments as accrued income. When arrears exceed 90 days, loans are classified as "non-performing" and interest can only be accrued only on a cash basis. If arrears go beyond 180 days, the loan can be classified as "value impaired". This then requires the bank to charge off, or set aside non-reversible reserves, a percentage of the face value of the loan (10 percent minimum the first year). Of course, this has an adverse impact on earnings. A loan can eventually be classified as a loss and written off. See Devlin (1989, 215n57).

²⁵ Mexico would continue to service the debt owed to them, as it was required to do because of the clauses included in the debt contracts (see Chapters 2 and 4)

²⁶ The terms "involuntary" or "forced" lending -though strictly speaking they were not- were used to designate that kind of loans during the international debt crisis. Arguably, a more precise term would have been "non-market" syndicated loan.

530 banks from 40 countries subscribed the loan. The distribution of the loan between quite uneven: 26 banks²⁷, 4.9 percent of the total, contributed with \$2202.7 million, 44.1 percent (Kraft 1984, 52-54; SHCP 1988, 99-102). The commercial creditors had at least a strong core to negotiate with Mexico.

How strengthened was the position of the Mexican government by the IMF/industrialised countries pressure? Undoubtedly it obtained much more money than what would have been the case without it. However, even with those \$5.0 billion, the country had to make a huge net transfer of resources to the banks. The position of Mexico in Figure 2.1 would have been between B and C, that is, very far from the ideal position for a HIC (D or beyond).²⁸ It is plausible to argue that, had the IMF not pushed the banks, De Larosi re's worst fears would have occurred: the monies from the Fund, the BIS and the industrialised countries would have been drained by the banks. If Mexico had tried to keep servicing its debts at any cost, probably a hyperinflation would have exploded.²⁹ More probably, it would have defaulted after a few months. With other countries in deep trouble by then, the international financial system would have been endangered.³⁰

Considering the enormous exposure of some banks (Table 6.4) it may seem surprising that Mexico did not try to attain a better result vis-  vis its commercial creditors. That is, an even bigger loan than the \$5.0 billion, to reduce or reverse the net transfer it had to make to them, resources needed to cushion the adjustment. A weapon that was within reach but was never used was that of a real moratorium -no payment of interests or capital, pushing the international financial system to the edge. Apparently it was avoided to present that facade of responsibility already described, betting that a good behaviour would pay off in the medium term and outweigh any default short-term gains. Also as important was the fear that Mexico would face international ostracism, and be even unable to import basic foodstuffs (Kraft 1984, 4; Silva Herzog 1993, xxv-xxvi). Moreover, personalities matter: if there was a government willing to risk a moratorium it was the one headed by L pez Portillo (Kraft 1984, 45; Gurr a 1993, 39). That was not the case with De la Madrid, much more orthodox in ideology and temper.

Table 6.4. Selected U.S. Banks Exposure to Mexico in 1982
(percentage of primary capital)

Citibank	54.6	Continental Illinois	32.4	First Interstate	63.0
Bank of America	52.1	Bankers Trust	46.2	Marine Midland	28.3
Chase Manhattan	40.0	First Nat. Chicago	50.1	Mellon	41.1
Morgan Guaranty	34.8	Security Pacific	31.2	Irving Trust	34.1
Manufacturers Hanover	66.7	Wells Fargo	51.0	Bank of Boston	28.1
Chemical	60.0	Crocker National	51.2	Interfirst Dallas	30.1

Source: Buffie (1989, 520).

²⁷ Nine from the United States, five from Japan, four from Canada, three from the United Kingdom, two from France, two from Switzerland, and one from Germany.

²⁸ Just in interest payments Mexico gave to the banks an approximate \$5,878 million. Of that amount, \$5,278 million in interest payments for the debt owed to the banks up to 1982 (\$45,399 million), as LIBOR was during the year on average 9.75%, and the spread was 1.875%. The interests on the \$5.0 billion loan amounted to \$600 million (LIBOR plus 2.250% spread).

²⁹ Precisely what would happen to Bolivia in 1984. See Sachs (1988b).

³⁰ Cline (1983, 1984a, 26-29) and Canavan (1987, 57-58) present some elements of a doomsday scenario.

The \$5.0 billion loan was only one of the two key parts of the negotiation between Mexico and the Advisory Committee; the other was the rescheduling of the debt. After much wrangling, it was decided that bonds would not be subject to any rescheduling³¹, mainly because their amount was relatively small. Inter-bank lines were also excluded. However, their huge amount (around \$6.5 billion) made their payment impossible. So, while never officially rescheduled, those lines were rolled-over whenever due. Other loans, such as those guaranteed by the U.S. Eximbank or the U.K. ECGD or the ones owed to IFIs such as the World Bank or the IADB were also excluded. Finally, it was agreed that all debt due owed to the banks between 23 August 1982 and 31 December 1984 (\$22.5 billion) would be rescheduled, while paying much higher spreads (Table 6.5). The Advisory Committee argued that those spreads were necessary to convince many banks to enter the deal (Gurría 1988, 78). Moreover, the agreement set a precedent for similarly advantageous terms with other HICs.³²

Table 6.5. The 1982-83 MYRA: Terms and Estimation of Additional Costs

Rescheduling Terms	
Rescheduling of payments due between the end of August 1982 and 31 December 1984:	
- Amount: \$22,517.1 million;	
- Average amortisation period: 72 months;	
- Maturity: eight years, with a four-year grace period;	
- Interest rates: spread of 1.750 points above Prime rate or 1.875 points above LIBOR ^a ;	
- Fee: 1.0 percent.	
New Financing Terms	
- Amount: \$5.0 billion;	
- Average amortisation period: 54 months;	
- Maturity: six years, with a three-year grace period;	
- Interest rates: spread of 2.125 points above Prime rate or 2.250 points above LIBOR ^a ;	
- Fee: 1.25 percent.	
Estimation of Additional Costs ^b	
Fees	
Rescheduling	235.17
New Money	62.50
Spreads' Increase	
Rescheduling ^c	309.25
New Money ^d	62.50
Total Cost during 1983	669.42
Total Cost during 1984	371.75
Total 1983-84	1041.17

a. The biggest syndicated loans obtained by Mexican public borrowers during the last months of 1981 and the first half of 1982 paid a spread above LIBOR in the 0.500-0.875% range (see Chapter 5 and Table B14).

b. Own estimation. Million dollars.

c. Assuming that the debt contracted until August 1982 was paying on average a spread of 0.560% above LIBOR or 0.685% above Prime, approximately the average spread on public borrowing during the 1980-82 period.

d. Assuming that for several loans totalling \$5.0 billion in the Euromarkets, had Mexico been creditworthy, it would have paid an average spread of 0.875% above Prime or 1.000% above LIBOR (the average paid during the second quarter of 1982).

Sources: Constructed with data from SHCP (1988, 104-109, 149, 173), Buffie (1989, 521), and Gurría (1993, 42-44).

³¹ As it is clear from Chapter 5, this decision proved to be decisive for the future borrowing by Mexico and other countries in the international bond markets during the 1990s.

³² A brief chronological description of how Brazil fell into a debt crisis and restructured its debts in 1982-83 is presented by Mendelsohn (1983, 26-30). For the case of Venezuela see McGirk (1982); Argentina was already in trouble because of the Falklands war that it had lost at the beginning of 1982. See SHCP (1988, 104, 109) for the terms obtained by other Latin American countries in their respective 1982-83 MYRAs.

The government must have considered the cost above the “market” level (\$1.0 billion for 1983-84, see Table 6.5) as a price worth paying. Unilateral actions were avoided, keeping Mexico within - though in the fringes- of the international financial system, while the gigantic lump of payments scheduled for 1982-84 was flattened (see Table 6.6). A blueprint had been improvised, and was to be followed by Mexico and other HICs in the negotiations that would follow during the 1980s.

6.2.2. THE SECOND MYRA, 1984

A simple look at Table 6.6 is enough to conclude that Mexico would need to negotiate a new MYRA even before the ink on the first one was dry. Why engage in an exercise that obviously had to be redone? From the Mexican side a plausible explanation was that in August 1982 it was genuinely considered that by 1984 the economic situation would be much better, while the banks flatly refused to consider rescheduling debts beyond two years (the traditional period with previous reschedulings).

Table 6.6. Amortisation Schedule of Public External Debt, 1982-2006
(before and after the 1982-83, 1984, 1986, and 1989-90 negotiations, million dollars)

	1982-83 MYRA ^a		1983-84 MYRA ^a		1986-87 MYRA ^a		1989-90 Package ^b	
	Before	After	Before	After	Before	After	Before	After
1982	8144.4 ^c	584.9	-	-	-	-	-	-
1983	8960.2	1475.2	-	-	-	-	-	-
1984	5367.9	1655.0	-	-	-	-	-	-
1985	9672.1	10172.0	9370.8	3221.2	-	-	-	-
1986	5148.0	8497.8	8498.0	1565.0	1208	258	-	-
1987	7525.4	13728.0	13468.8	3684.5	513	0	-	-
1988	4670.1	10785.0	11778.0	2443.0	1016	0	-	-
1989	3521.2	9129.2	10097.4	3771.0	3000	572	-	-
1990	1129.1	9087.0	8031.6	4859.0	3499	1897	2367	0
1991	3161.1 ^d	5333.3 ^d	1802.2	5290.0	4291	1897	5288	0
1992	-	-	1507.4	5496.3	4803	1897	2612	0
1993	-	-	1270.4	5760.5	5293	1897	2566	0
1994	-	-	842.8	5910.3	5492	1606	2042	0
1995	-	-	358.9	5784.0	5582	1026	1521	0
1996	-	-	358.8	5958.0	5811	2623	3079	730
1997	-	-	358.7	6484.0	6091	1872	2432	867
1998	-	-	358.7	6173.0	6118	2666	3112	906
1999	-	-	1275.5 ^e	2978.2 ^e	0	3182	3080	945
2000	-	-	-	-	0	3672	3352	945
2001	-	-	-	-	0	3652	4187	2772
2002	-	-	-	-	0	5609	n.a.	n.a.
2003	-	-	-	-	0	5839	n.a.	n.a.
2004	-	-	-	-	0	6120	n.a.	n.a.
2005	-	-	-	-	0	3072	n.a.	n.a.
2006	-	-	-	-	0	3072	n.a.	n.a.

Note 1: As it is quite evident, there is no coincidence between the “After” column and the “Before” column of the following negotiation, as it should be the case. No source provides any explanation for these discrepancies.

Note 2: It must be pointed out that the amortisation schedule presented just after the negotiation was concluded in principle was different from the one when it was signed. This second one is the schedule included in the table.

a. Multi-Year Rescheduling Agreement with additional “involuntary” lending.

b. Exchange of debt for bonds with debt or debt service reduction plus new credits.

c. Amortisations from August 20 to December 31.

d. 1991 and after.

e. 1999 and after.

Sources: Nacional Financiera (1990, 454) for 1982-83; Banco de México (1985b, 122) for 1983-84; Ortiz Dietz (1995, V-13) for 1986-87, and Gurúa (1993, 251) for 1989-90.

While it would take months for the banks to even agree to negotiate a new MYRA, it just took some weeks to arrange an “involuntary” loan with the Advisory Committee for 1984. Mexico initially wanted \$4.0 billion, and in 23 December 1983 an agreement for \$3.8 billion was reached (SHCP 1988, 107, 134). The \$3.8 billion involuntary loan was as difficult to syndicate as it had been the \$5.0 billion one. As previously, the problem was to get on board the medium and small-sized creditors. The final agreement on the loan was signed on 27 April 1984.

It was not until 1 June, when de Larosière and Volcker spoke in favour of it, that the Advisory Committee agreed to negotiate a new MYRA. However, they expected to reschedule only the payments coming due in the next two or, maximum, three years. But Mexico demanded that all the principal due between 1985 and 1990 should be rescheduled, with a payment horizon of 14 years. Another key request was that the terms of the previous MYRA should be softened. What horrified the banks was to agree to push payments so much into the future. An initial request to compensate for that uncertainty was for Mexico to be kept under the surveillance of the IMF for an equally unprecedented span of time, which was turned down flatly. Instead the government proposed to channel more information to the IMF, that would in turn provide it to the banks, while the agreement lasted. The proposal was accepted, and allowed a new MYRA to be negotiated, with principal payments and spreads considerably reduced (Tables 6.6 and 6.7). While the agreement in principle with the Advisory Committee was reached in September, it would take many months to get approval from all the banks (SHCP 1988, 141-143).³³

Table 6.7. The 1984 MYRA

Terms of Rescheduling	
- Amount: \$23,517.1 million previously rescheduled plus around \$20.1 billion due in 1985-90, and that had not been rescheduled previously; - Maturity: 14 years with a two-year grace period; - Spreads were unified to be all above LIBOR: 0.875% for the years 1-2; 1.125% for the years 3-7; 1.250% for the years 8-14 (average: 1.152%); - Fee: none.	
- Amount: \$5.0 billion lent as part of the 1982-83 MYRA; - Maturity: 10 years with a five-year grace period for \$3.8 billion, \$1.2 billion to be paid in 1985 (\$250 million in January and \$950 million in the first days of October); - Spreads: 1.500% above LIBOR or 1.125% above Prime; - Fee: none.	
Terms of New Financing	
- Amount: \$3.8 billion; - Maturity: 10 years with 5.75 years grace period; - Spreads: 1.500% above LIBOR or 1.125% above Prime; - Fee: 0.625%	

Source: Constructed with data from SHCP (1988, 134-136, 173);

³³ The contracts for \$28.6 billion (the debt that originally was due from August 1982 to December 1984 plus the \$5.0 billion loan of the 1982-83 MYRA) were signed on 29 March 1985; the contracts for the \$20.1 billion due between 1985 and 1990 were signed until 29 August. However, all agreements signed were with effect from the first day of 1985.

6.2.3. THE THIRD MYRA, 1986-87

Considering that during 1985 a successful adjustment would continue, and the current account would present a sizeable surplus, the government considered it would not be necessary to request any “involuntary” loan. There was an expectation that in late 1985 or early 1986 the country might re-enter the (voluntary) capital markets in a limited way in a “showcase” loan orchestrated by the Advisory Committee (Devlin 1989, 224).

But the stabilisation attempt faltered in 1985. Moreover, in September two big earthquakes hit Mexico City (see Chapter 3 for details). At the end of September, Mexico requested the banks to postpone for six months the \$950 million payment due in early October (Gurría 1988, 87-89; see Table 6.7). The government also requested a \$4.0 billion loan, with \$2.5 billion coming from the commercial banks. To face the balance of payments problems that would derive from the earthquakes, the IMF granted to Mexico an emergency loan for \$300 million.³⁴

In that environment, tainted further by the militant attitude assumed by the new government of Peru (see Chapter 2), James Baker, U.S. Treasury Secretary, presented in October what he quickly known as the Baker Plan. It aimed to provide financing for certain middle-income HICs to foster growth and with it the possibilities of normal debt servicing, always on a case-by-case approach.³⁵ In reality the aim of the Baker Plan (in reality a brainchild of Paul Volcker) aimed to maintain the soundness of the financial system (Broad 1987). Several Treasury officials thought the banks were out of danger, and were supportive of the notion of debt reduction. However, the vision of the Fed, via Baker, prevailed.³⁶

Mexico was the natural first candidate to try on the Baker proposals. If the earthquakes had added to the sense that the country had lost its way in the stabilisation effort, the collapse of the oil prices in the first weeks of 1986 brought a sense of absolute panic. The progress made both in the debt and economic fronts were smashed to pieces.³⁷ In many quarters a moratorium was seen as a matter of when, not if. However, the government responded with a harsher adjustment (see Chapter 3).

Negotiations were started in all fronts: with IFIs (for financial support), industrialised governments (requesting a softening of their regulatory frameworks with respect to the treatment of the HIC's debt), and the banks. At the end of March 1986 the Advisory Committee agreed that the repayment of \$950 million -originally due in October 1985- should be deferred for six months. But no fresh resources were lent to Mexico during the following months. By June the economy was on the verge of collapse; net international reserves were under \$2.5 billion, and the interest bill standing for the second half of the year was \$3.6 billion (Gurría 1993, 69-71). An adjustment programme was presented to the IMF in June, but was rejected. The perception was that a stronger adjustment was needed, to

³⁴ The total amount of loans offered to the Mexican government for the reconstruction efforts reached almost \$1.15 billion. For details on other emergency loans obtained from the World Bank, the IADB, and the governments of France and Japan see SHCP (1988, 178-179).

³⁵ The Baker speech is reproduced in the Appendix 1 of Kuczynski (1988, 209-216). An abridged version appears in the Appendix A of Pastor (1987, 151-152). The HICs included in the Baker Plan were: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ivory Coast, Ecuador, Jamaica, Mexico, Morocco, Nigeria, Peru, The Philippines, Uruguay, Venezuela, Yugoslavia. This group became known as the Baker-17.

³⁶ Volcker and Gyohten (1992, 213-214); Roett (1989, 63). For a dissecting analysis of the events in Latin America that may have pushed the Baker Plan see Devlin (1989, 224-226). Some analysts interpreted the Plan as an important shift, an alternative to the unpopular IMF adjustment; the search for growth rather than deflation (Cohen 1986, 226; O'Cleireacain 1990, 184).

obtain a sufficient surplus in the external accounts to cover the interest payments. After three years of stagnation, the government was keen to avoid a recession of great magnitude. Moratorium was considered as an option (all debt service in dollars would be suspended, and substituted by payments in pesos, that would be deposited in the Bank of Mexico³⁸). The warning of that pending scheme did the trick, and pushed the IMF and the banks to return to the negotiation table (SHCP 1988, 202).

But the IMF agreement was conditioned to Mexico obtaining at least 90 percent of the loan from the creditor banks (see Table 6.8). With the Letter of Intent signed at the end of July 1986, both Mexican negotiators and the Advisory Committee were instructed to clinch a deal by the end of September.³⁹ Both sides abandoned proposals to radically change the usual MYRA: the Mexicans left aside the proposal to adjust debt service payments to an oil price/interest rate ratio;⁴⁰ the Advisory Committee forgot its proposals that the loan should be heavily conditioned. The negotiations actually ended in Washington, not in New York, with the added presence of Volcker, De Larosière, Barber Conable (President of the World Bank), and U.S. Treasury members. The spread above LIBOR finally agreed is the clearest evidence that the squabble between Mexico and the banks followed the diagram presented in Figure 2.2. That spread was merely the

... result of a Solomonian decision from the Olympics in Washington in an effort conciliate the positions of the Advisory Committee and the demands of the Mexican negotiators. *Even when it did not have a notable market orientation, it was clear, clean and easy to understand* (Gurría 1988, 106; emphasis added).⁴¹

An agreement with the Advisory Committee was reached at the end of September. But the usual difficulty of subscribing the loan was even greater than in previous MYRAs. To get together the \$7.7 billion it was requested from each bank a contribution to the pot equivalent to 12.9 percent of its exposure to Mexico on 23 August 1982. Many banks were tired with what they saw as impositions from the Advisory Committee. Moreover, by 1986 a secondary debt market had developed, with debt trading with heavy discounts, and many banks were reticent to continue what they saw as throwing good money at bad loans, while others had liquidated their exposures in that market.⁴² 40-50 U.S. regional banks and at least 40 banks in Southern Europe and the Middle East flatly refused to participate, while others contributed with only symbolic amounts (SHCP 1988, 238-244). Because of the delays in putting together the \$7.7 billion, at least on two occasions Mexico considered to default. However, by then huge expectations had been built around the loan. Further pressure from the IMF, and extra contributions from six of the seven U.S. banks represented in the Advisory Committee did the trick, and on 20 March 1987 a total of \$7,787 million had been put together. However, only 365 banks had participated. On 16

³⁷ Naturally, the situation would have been much worse there had not been any previous adjustment.

³⁸ The design of the scheme showed the importance that Mexico attached to hang to the image of responsible debtor that it had forged since 1982; even in a unilateral default payments were officially done, though not within the reach of creditors.

³⁹ While the Mexican team naturally received instructions from the government (the President, through the Minister of Finance), the liaison with the Advisory Committee was obscure. Known in the negotiating jargon as the "invisible man" there was a high-level official from the Federal Reserve that "advised" the Committee (Gurría 1993, 78n41).

⁴⁰ A factor that pushed the Mexican government to leave aside its radical proposals was that by September 1986 it had not received any credits from the commercial banks, and international reserves were under pressure (Gurría 1993, 78n41).

⁴¹ See also Volcker and Gyohten (1992, 215) for a similar account.

⁴² This market started to develop slowly at the beginning because it lacked a standardised financial instrument. However, the 1982-83 debt reschedulings, however, had the unintended effect of creating a few issues out of numerous syndicated credits. At first, much of the trading involved inter-bank transactions, with creditors changing their exposures in several countries. A boost to

April all the contracts were signed, and the first \$3.5 billion were received on 30 April, with the international reserves at the Bank of Mexico jumping considerably (see Table A23). The rest would be received in \$500 million tranches every quarter until March 1988.⁴³ Naturally, the MYRA considerably flattened the payments' horizon that Mexico faced in the following years (see Tables 6.6 and 6.8).

Table 6.8. The 1986-87 Agreements and MYRA

Agreement with the IMF
- Dates: Letter of Intent, 22 July 1986; approval by the Executive Board in 19 September. - Amount: SDR1.4 billion (\$1.7 billion), to be withdrawn on a quarterly basis during 18 months. - Contingency Financing: 1) \$720 million if the average oil price fell under 9 dollars during a quarter; 2) \$500 million if by the first quarter of 1987 there was no economic growth; - The IMF agreed to measure the success of the programme on the reduction of the primary deficit, not the PSBR, and that economic growth had to be resumed in the short term. - Condition: No money would be withdrawn until the commercial banks had agreed at least to lend \$6.9 billion, 90 percent of the \$7.7 billion loan (that happened on 19 November 1986).
Bridge Financing from Governments and Commercial Banks
- A total of \$1.1 billion from the BIS (half coming from the U.S.) and the central banks of Spain, Argentina, Brazil, Colombia, and Uruguay. Received at the end of August 1986, paid in the first days of 1987 to strengthen the international reserves; - \$500 million from the Advisory Committee and other banks. Received on 19 November.
Debt Rescheduling with the Paris Club
- Amount: \$1782 million, that covered all principal (\$1500 million) and 60 percent of the interests (\$282 million) due between 22 September 1986 and 31 March 1988; - Maturity: 10 years with a five-year grace period; - Non-written agreement that credits by eximbanks would not be cancelled. - Condition: Stabilisation programme accorded with the IMF.
Rescheduling with the Commercial Banks - The Pre-1982 Debt
- Amount: \$43.7 billion (debt originally due between August 1982 and December 1989). - Maturity: 20 years with a seven-year grace period (the payment horizon of the 1984 MYRA was just pushed seven years into the future). - Spreads: 0.8125% above LIBOR; - Fee: none.
Rescheduling with the Commercial Banks - The Post-1982 Debt
- Amount: \$8.55 billion, \$4.75 billion lent as part of the 1982-83 MYRA (\$250 million had been paid), and \$3.8 billion lent as part of the 1984 MYRA; - Maturity: No changes, except for the \$950 million originally due for October 1985, that would be paid evenly between 1989 and 1993; - Spreads: 0.8125% above LIBOR (Prime is eliminated as a reference rate).
Terms of New Financing with the Commercial Banks
- Amount: \$6.0 billion; - Maturity: 12 years with a five-year grace period; - Contingency Financing: Up to \$1.7 billion, \$500 million if growth performance was inadequate during the first quarter of 1987, and \$1.2 billion for public investment in case of inadequate growth of export revenues (oil average price under \$9 dollars during a quarter); - Maturity: 8-12 years, with 4-7 year-grace periods; - Spreads: 0.8125% above LIBOR;

the market came with the debt-conversion programmes adopted by several HICs, with debt/equity swaps being the most common (Purcell and Canavan 1989, 36-40).

⁴³ As the average oil price stayed well above the nine-dollar threshold (the average of the Mexican mix from April 1987 to March 1988 was 15.4 dollars, see Table A16), none of the contingency clauses was activated, and Mexico received \$5.5 billion instead of the \$7.7 billion. The last tranche, for \$1.1 billion, was received on March 30 (Nafinsa 1988bd).

Source: Constructed with data from SHCP (1988, 212-238);

The 1986-87 MYRA represented how much the Baker Plan was defunct, as the banks never came up with the resources outlined in the plan. Even Baker conceded defeat (New York Times 1987). The death-knell for the Baker Plan came finally on 19 May when the leader of the American banks, and the most important creditor of many LDCs, Citicorp, announced the creation of an additional reserve of \$3 billion -equivalent to almost one-quarter of its loans to HICs- to bolster its reserves against potential losses on its loans, instead of using those resources to lend more. Chase Manhattan leapt behind with \$1.6 billion, Bank of America and Chemical with \$1.1 billion, and Manufacturers Hanover with \$1.7 billion. Many other banks followed suit in the following weeks (Kuczynski 1988, 177-180).⁴⁴

Several months had elapsed between the oil shock and Mexico receiving the banks' loans. However, the resources raked in by Mexico would be put to good use, to support a bold stabilisation programme, the *Pacto* (see Chapter 3) and to issue a securitised bond, that would become known as the Aztec bond, which would be exchanged in early 1988 for some debt. Though small in magnitude, that exchange was to have important consequences to end the debt crisis.

6.2.4. THE 1988 DEBT/AZTEC BOND SWAP

The secondary market of debt was soon seen as a potential market-based solution to the crisis. Moreover, the stampede to constitute reserves initiated by Citicorp in May 1987 brought a plunge in its prices. However, for a HIC to pursue a debt buyback, a prepayment of debt at a discount, waivers to the negative-pledge and sharing clauses included in the debt contracts were needed (that is, the approval of its creditors). Moreover, the scope for buybacks was intrinsically limited, as large buyback would lower the discount. Only if information was very imperfect, creditors greedy, impatient, fragmented or without retaliatory power, and/or regulatory and tax considerations created asymmetries, debtors would retire debt advantageously. Another issue was how to finance a buyback. Should HICs invest scarce resources buying their debt?⁴⁵ Another option were exit bonds, that also buyback debt, but by swapping it for other debt instruments instead of cash, instruments that offer some kind of credit enhancement, and that therefore capture a discount in the swapping process.⁴⁶

With the reserves accumulated through borrowing and the external accounts (the current account had a surplus equivalent to 3.1 percent of GDP during 1987), there were enough resources to invest in such a venture. In tandem with the Morgan Guaranty Trust, on 30 December 1987 the Mexican government requested from all its commercial creditors their agreement to modify clause 8.02 of the debt contracts signed in March 1987. The change would allow the country to offer the banks a voluntary debt/exit bonds swap. That approval was obtained on 5 February 1988. The desire from the Mexican

⁴⁴ In that sense, the first nail into the Plan's coffin was hammered just a few weeks after Baker's speech in Seoul, when, on 29 October 1985, federal regulators registered Peru in the list of debtors whose loans were "value impaired", meaning that the banks would need to constitute reserves because of potential losses in their loans to that nation. The banks accepted the regulation, and used it as an argument to reject the Plan (Gurría 1993, 67n36).

⁴⁵ Opinions on the matter were heavily divided. For Bulow and Rogoff (1988a, 1988b, 1989) the answer was no. Exemplifying with the Bolivian 1988 buyback (1988a, 678-679), their argument is that the exercise would just increase the value of the remaining debt, wiping out any benefits. Dornbusch (1990, 165) and Sachs (1988b) favoured buybacks if they brought efficiency gains, that result in a reduction of economic uncertainty; for Rotemberg (1988) even marginal buybacks could be beneficial, if the dead-weight that the debt represented was big enough.

⁴⁶ See Williamson (1989) for a detailed analysis of several debt-reduction alternatives.

government to make the auction a success and retire a considerable amount of debt is evident in the conditions offered, particularly the spread above LIBOR (1.625%), double of the spread paid by the debt.⁴⁷ The auction took place on 26 February. However, the deal was deemed a failure, particularly because of the quantities involved, but also because of the average discount obtained (Table 6.9).⁴⁸ It was later argued that the disappointing result was explained because the interest payments of the bonds were not guaranteed (Kuczyński 1989, 4; Gurría 1990, 171), or that the banks did not believe the promised seniority of the bonds (Bulow and Rogoff 1988b, 695). Arguably, a better reason to explain the flop was that the banks that had remained with Mexico -those that had participated in the three MYRAs- preferred to stay put rather than offer an important discount, while they continued receiving a net transfer of resources. Moreover, important creditors rather preferred to wait, hoping that things would get better, or that -if few were left- then their chances of being paid increased.⁴⁹

Table 6.9. The 1988 Debt/Aztec Bonds Swap: Terms and Results

Terms of the Offer
- Banks were invited to swap their loans for Aztec bonds, to be issued by the Mexican government; - Total amount of eligible debt: \$52.25 billion; - Principal Payment: one single payment in 2008 (20-year maturity), that would be fully guaranteed by non-marketable zero-coupon U.S. Treasury bonds, with matching maturity and principal; - Interest payments: bonds would pay LIBOR plus 1.625%, but interest payments would have no guarantee; - Mexico would issue up to \$10 billion of Aztec bonds, while pledging not to spend more than \$2.5 billion to purchase the zero-coupon bonds that would act as collateral; - Banks could present up to five bids. Each bid had to specify the amount of debt tendered and the discount offered; - Aztec bonds would be excluded from any future reschedulings or requests for involuntary loans.
Results
- Mexico received 320 bids from 139 banks from 18 countries (approximately one third of the total number of eligible creditors); - Bids totalled \$6.7 billion, of which \$3665 million were accepted, amount that fell within the range of \$65.75 and \$74.99 per \$100.00 of face value; - The government issued \$2.56 billion of Aztec bonds, with an average price of \$69.77. \$492 million were used to purchase the collateral.

Sources: Constructed with information and data from Landamy (1988, 14-16); SHCP (1988, 258-265); Bulow and Rogoff (1988b, 696) and Gurría 1993, 96-98).

But if the Aztec exchange was disappointing in its results, it created two crucial precedents: 1) the U.S. government had given its *imprimatur* to a scheme that accepted that the debt had not, in reality, the value inscribed on the banks' books,⁵⁰ and 2) a way had been devised for the debt to be "paid" -albeit after a 20-year wait, instead of merely rescheduling it.

⁴⁷ An attractive incentive if LIBOR fell from the stratospheric levels where it stayed in the 1980s. For example, with an average LIBOR of 4.63 percent during the 20-year life of the Aztec bond (the average during 1992-95), the extra spread of 0.8125% gave the bank interest payments that fully compensated a 16.6 percent discount.

⁴⁸ Huge expectations had been built, with the most feverish ones estimating that, issuing \$10 billion in Aztec bonds, and buying \$2.0 billion in zero-coupon Treasury bonds, Mexico would pay in advance \$20 billion of debt (implying a discount of 50 percent, near to the one that prevailed in the secondary markets).

⁴⁹ That attitude is even clearer in an even more extreme case: Bolivia, where the 1988 buyback was approved, and even pushed, by its most important creditors, that refused to participate in it (**Sachs 1988b,)**

⁵⁰ That acceptance was implicit in the authorisation that the Aztec bonds should have 30-year zero-coupon bonds from the Treasury Department as collateral, bonds that had to be issued for Mexico to purchase them.

6.2.5. THE 1989-90 MYRA AND DEBT REDUCTION AGREEMENT

The Aztec bond was the last official attempt by the De la Madrid administration to overcome the debt crisis, as the U.S. blocked any initiatives mainly for political reasons (Gurría 1993, 103).⁵¹ The expectation was that the incoming Bush administration would present a bolder approach to the debt problem after more than six years of crisis, by supporting the notion of reduction in the debt and its service, as banks were very far from any of the dangers envisioned in 1982. What was needed was a new framework to negotiate with the banks. Nicholas Brady provided it on 10 March 1989. The U.S. Treasury Secretary presented a series of proposals that were to be known as the Brady Plan.⁵² Among the most important: 1) Voluntary debt and debt service reductions should be stimulated; 2) Part of the resources provided to HICs by the IMF and the World Bank could be used to finance debt reduction schemes. Those institutions should not condition their support to a HIC reaching an agreement with its commercial creditors, and 3) Creditor governments (through the Paris Club) would co-operate by maintaining credit lines and rescheduling the debt owed to them, and by modifying accounting or tax regulations that would hinder debt or debt service reduction operations;

Almost immediately Mexico sprung into action⁵³ to apply the, somewhat vague, Brady proposals (vagueness that was far from accidental). A key feature of the Brady Plan was that it allowed Mexico to obtain financial support from the IMF and the World Bank *without* even reaching an agreement with the banks.⁵⁴ Moreover, part of those resources would be used to finance debt reduction operations. In a matter of weeks, Mexico negotiated a Letter of Intent with the Fund, loans with the World Bank, and a rescheduling with the Paris Club (Table 6.10).

On 19 April, a week after the IMF deal was clinched, the negotiations with the Advisory Committee began. The IMF programme not only explicitly included debt reduction, but also stated expressly that net external transfers from Mexico should fall to an annual maximum equivalent to 2 percent of GDP. That is, if the banks accepted that programme, then they implicitly were endorsing the need for debt reduction. Moreover, Brady explicitly said that if Mexico reached no agreement with the commercial banks, the IMF resources would not be used to finance any debt service owed to them (Wall Street Journal, 1989). The agreements with the Paris Club and the Japanese government also represented a blow for the banks, as they ensured that the country would not suffer from the cut of short-term credit lines.⁵⁵

The Mexican perspective was the country had two basic reasons to demand a debt reduction. One was that it offered to exchange its debt with bonds with a stronger collateral (guaranteed by the United Mexican States, but with zero-coupon bonds from the U.S. Treasury -or the Exchequer of other

⁵¹ Mexico (in December 1988) and the U.S. (January 1989) were to inaugurate new governments.

⁵² Those proposals were contained in a speech that Brady gave before the Conference on Third World Debt organised by the Brookings Institution and the Bretton Woods Committee.

⁵³ A few days before the Brady Plan was made public, David Mulford (one of its architects, as Undersecretary for International Affairs of the Treasury) met secretly with Pedro Aspe (Mexican Finance Minister) and José Angel Gurría (undersecretary for International Financial Affairs) to discuss elements of the Plan. A key difference was that Mexico wanted a big and quick operation of debt reduction, while the U.S. envisioned smaller sequential operations through a span of several years (Gurría 1993, 118-121).

⁵⁴ This had been authorised by the IMF before the Brady Plan: for Bolivia and Costa Rica, but never for weighty debtors. See Sachs (1988b, 710-713) and Devlin and Lustig (1990, 300-301).

⁵⁵ That is, the most immediate reprisal that the banks applied against a defaulting debtor (Cline 1983, 89; Kaletsky 1985, 110).

industrialised country- that guaranteed the payment of principal, plus an escrow account that guaranteed interest payments for at least 18 months). The second reason was that the debt payment capacity of the country had deteriorated enormously along with its terms of trade after the crisis started in 1982, and that it was fair to demand that creditors shared part of the burden (Aspe 1993, 140-142).

Table 6.10. Agreements with the IMF, World Bank, Paris Club, and Japan during 1989
(main points)

International Monetary Fund - 11 April
- Recognised that the external debt represented a deadweight that hindered sustained economic growth with price stability; compromise to provide resources for debt reduction operations; - Total financial support of \$4135 million during a three-year period.
World Bank - 17 May
- Credits to finance development projects for \$1.96 billion, plus the compromise of an average of \$2.0 billion per year during the 1990-92 period; - Compromise to provide resources for debt reduction operations.
Paris Club^a - 30 May
- Rescheduling of principal and interest payments for \$2.6 billion: - Maturity: 10 years with a six-year grace period; - From 1 June 1989 to 31 March 1990: 100 percent of principal and interests; - From 1 April 1989 to 31 March 1991: 100 percent of principal and 90 percent of interests; - From 1 April 1991 to 31 May 1992: 100 percent of principal and 80 percent of interests; - Credit lines for \$2.0 billion a year for imports from the country members of the Club.
Government of Japan - 30 May
- Loans for \$5.0 billion during the following three years through the Japanese Eximbank; - \$2.05 billion of that total would be available to finance debt reduction operations.

a. Composed by 16 countries. The debts rescheduled were with their respective eximbanks. The debt owed to the Paris Club was approximately \$10 billion, with annual interest payments of around \$800 million.

Sources: Constructed with information from Aspe (1993, 139-141); Gurría (1993, 128-138) and Green (1998, 336-345).

The initial request by Mexico to the Advisory Committee was naturally farfetched: 55 percent debt reduction, or an interest rate reduction to a fixed 4.0% per annum, or that the banks lent 80 percent of the interest payments due during the next six years. The aim in offering different options was for the banks to have alternatives that, though financially similar, would differ in their appeal according to the regulations they faced. The Committee's first offer in line with that kind of menu was a reduction of 15% or its equivalent in a fixed interest rate or additional loans. After months of intense squabbles, on July 20 the negotiations broke down. Even if a moratorium had been regarded as the last alternative, particularly because of the shock that it would imply for the confidence of domestic agents (the economy was undergoing a successful stabilisation programme), it was an option that was ready to be implemented, with the typical zest for presenting a responsible facade: at the same time it defaulted, the government would announce that any banks that accepted its terms would have debt service restored immediately, thus jumping over the Advisory Committee. The U.S. government was shocked into action, and the negotiating table moved to Washington, under the direct mediation of the Treasury and the Federal Reserve. A deal was reached on the night of 23 July (Gurría 1993, 130-134, 138-148). The financing of the debt reduction operations were financed with resources, among others, from the IMF and the World Bank (Tables 6.11 and 6.12).

Table 6.11. The 1989-90 MYRA and Debt Reduction Agreement Features

Eligible Debt: \$48231.0 million^a Dates: Agreement on principle, 23 July 1989 (Washington); Sheet of Terms and Conditions, 15 September 1989; Official subscription, 4 February 1990 (Mexico City); Swaps implemented, 28 March 1990 (New York). Options^b 1) Debt/Discount Bonds Swap - Payment of principal fully guaranteed with 30-year zero-coupon bonds^c, but with a discount of 35 percent on the original debt; - Interest rate: LIBOR plus a 0.8125% spread. Interest payments guaranteed for 18 months with a escrow account. - Amount of the eligible debt that selected this option: \$20546.4 million. 2) Debt/Par Bonds Swap - Payment of principal fully guaranteed with 30-year zero-coupon bonds.^c - Fixed interest rate of 6.25 percent. Interests guaranteed for 18 months through a escrow account. - Amount of the eligible debt that selected this option: \$22427.4 million. 3) New Money (Debt/Debt Swap) - A virtual debt/debt swap at par value and an interest rate of LIBOR plus 0.8125%; - Banks had to make additional loans over the next three years, equivalent to 25 percent of the swap. This debt had no collateral. - Maturity: 15 years. - Interest rate: LIBOR plus 0.8125. - Amount of the eligible debt that selected this option: \$5257.2 million. Other Relevant Features Recapture Clause (valid for options 1 and 2) Under this clause, beginning July 1996, 30 percent of any additional oil export revenues obtained from an oil barrel price above \$14 in real terms (1989 dollars) would be given to the banks. That amount, however, would not exceed in any year 3 percent of the nominal value of the value of the bonds at the time of the exchange (i.e. there is no indexation of this cap). Contingency Financing In the price of the barrel of oil falls under \$10 in real terms (1989 dollars) the IMF, World Bank and a group of commercial banks would lend approximately \$1.0 billion. Debt/Equity Conversion Programme (valid for the three options) - Total amount in the programme: \$3.5 billion, minimum \$1.0 billion per annum; - Limited to public companies being privatised or qualified infrastructure projects; - The lower limit of discount would be 35 percent on Par bonds, New Money and eligible old debt; the conversion of discount bonds would not be higher than the face value. Legal Flexibility for Bonds' Repurchase Mexico was legally entitled to buy directly the Discount and Par bonds in the markets.

a. The eligible debt stock originally was approximately \$52.6 billion. However, that amount was reduced by Mexican debt used as payment for public enterprises that were privatised, debt/equity swaps authorised before November 1987 but exercised until 1989, amortisations of debt during 1989, plus the appreciation of the dollar vis-à-vis other currencies, that contracted the amount in dollars of the debt.

b. The first two options are equivalent assuming a LIBOR of nine percent.

c. Zero-coupon bonds were not only issued by the U.S. Treasury, but by the Exchequers of Belgium, Canada, France, Germany, Italy, the Netherlands, Japan, Switzerland, and the United Kingdom to allow their banks to acquire discount or par bonds in their own currency. Bonds would not be available in Ecus.

Source: Constructed with data from Aspe (1993, 140-145) and Gurría (1993, 148-156).

Table 6.12. The Enhancements for the 1990 Debt Reduction Agreement

Sources	
International Monetary Fund	1268.3
World Bank	2010.0
Japan Export-Import Bank	1380.2
Commercial Banks	1090.0
Mexican Government	1373.6
Total value of the enhancements acquired by the Mexican Government	7122.1
Uses	
Purchase of zero-coupon bonds that guaranteed the capital payment of the 2019 par-bonds and the 2019 discount bonds.	3400.8
Creation of an escrow account that would guarantee 18 months of interest payments for the par and discount bonds.	3697.4
Creation of an escrow account that would guarantee 18 months of interest payments for the Aztec bonds. ^a	23.9

a. This was necessary because of the *pari passu* clause included in the Aztec bonds.
Source: Constructed with information from Banco de México (1990a, 58).

Even if the agreement was implemented until the end of March of 1990, the ripple effects of the negotiations and the agreement on principle were immense -both at home and abroad. Even before the agreement was reached, on 16 June 1989, Mexico had returned to the international capital markets - albeit in a modest manner, with a \$100 million bond negotiated by the Mexican eximbank (see Chapter 5 for details). And, on the first auction of Mexican internal debt after the agreement on principle, interest rates plunged 20 percentage points. Both events arguably marked the (correct) assessment by domestic and foreign economic agents that, after almost seven years, the crisis had ended.

6.3. A SHORT LIVED AND MUCH NOTICED LIQUIDITY CRISIS: 1994-95

The intense debate around the causes of the crisis that exploded on 19 December 1994 (see Chapter 3 for details) contrasts markedly with the consensus on what happened later. A point in common is that nobody ever expected the ferocity of the crisis that the peso devaluation was to unleash. What was seen initially as a relatively minor correction to the exchange rate became, in a matter of days, a virtual financial meltdown, with the economy on the verge of collapse.

How bungled devaluation explains the initial negative reaction. The peso was devalued less than a week after Finance Minister Serra had ascertained that the exchange rate policy would not be altered, smashing to pieces the credibility of the government in general and his in particular.⁵⁶ The second grave mistake was that, originally, the government intended to let the peso float freely, eliminating the exchange rate band. However, when the decision was presented before the *Pacto* (see Chapter 3), private sector leaders convinced the government to attempt first an adjustment of the band.⁵⁷ Another mistake was that the devaluation was an isolated measure, not as a plank of a comprehensive adjustment.⁵⁸ A fourth problem was how the measure was presented: Serra insisted on 20 December that the peso had not been devalued, but just that the band had been amplified at its ceiling. The field was ripe for any piece of news to unnerve the markets, as indeed happened.⁵⁹ In 22 December the government had to allow the peso to float as it had been originally intended, but after losing \$4.63 billion in reserves (see Table 5.24). The government not only broke the *Pacto* and lost its credibility, but had also shown incompetence after just three weeks in office.

Moreover, the government tried to fortify its reserves through the North American Framework Agreement (NAFA), where \$6 billion from the U.S. government were accessible, along with C\$1 billion from Canada (see Chapter 3 for details). The U.S. Treasury and the Federal Reserve were caught as off-guard with the devaluation as any other economic agent.⁶⁰ Why, if reserves had been at a dangerously low level since the end of November and a change of administration took place on 1 December⁶¹, the government had not activated the swaps available within the NAFA? One possibility is that the incoming Zedillo administration did try to activate them, but was rejected, as the U.S. refused to provide resources to sustain what was perceived as an overvalued peso (GAO 1996, 97). However, even then Serra would have negotiated the swap activation to support an orderly devaluation. At least two reasons -that supplement each other- may explain why Serra did not activate the NAFA. The first

⁵⁶ Serra's was emphatic that the government would not devalue, nor it would increase the pace of the movement of the ceiling of the exchange rate band within which the peso moved. In an interview with the *Financial Times* published three days before the devaluation took place (Bardacke 1994), he argued that in any case the growth of the economy would be lowered to reduce pressures on the current account.

⁵⁷ There is not a similar episode in recent economic history, where a radical modification to the exchange rate policy was negotiated with (instead of being merely notified to) the private sector.

⁵⁸ As had been the argument of Pedro Aspe, expressed in the 20 November meeting between senior members of the outgoing Salinas administration and the incoming Zedillo administration.

⁵⁹ See the Appendix E in Gil Díaz and Carstens (1996) for an excerpt from the 20 December 1996 logbook of the foreign exchange desk at the Bank of Mexico, which details the evolution of the market during the day.

⁶⁰ Naturally, as a sovereign nation Mexico was in no obligation to say anything to the U.S. authorities in advance, but it would have been not only a matter of courtesy among peers, but a strategic move to count with the U.S. in the case anything went wrong -as indeed was to happen. The General Accounting Office (GAO) report on Mexico's 1994-95 crisis confirms that neither the Treasury nor the Federal Reserve were consulted nor warned of the devaluation (GAO 1996, 98-99).

⁶¹ As, for example, the De la Madrid administration had arranged a bridge-loan that would be activated during the first months of the Salinas government. On the other hand, it can be argued that the NAFA was already in place, and ready for the Zedillo government to activate the swaps.

and foremost was that the decision to devalue was improvised. The second was that Serra lacked a counterpart to negotiate with: Lloyd Bentsen had presented his resignation on 5 December, effective on December 22 (Graham 1994).⁶² Robert Rubin was Clinton's nominee to occupy the post, but had to be confirmed by the Senate. During 20 days the Treasury was to be headless.

Though initially the judgement was that the government bungled the devaluation, it was also greeted as a move that would unshackle the economy from a strong anchor that was hindering exports and growth.⁶³ However, the overshooting of the exchange rate shook economic agents. That apprehension became panic on 28 December, when it became widely known not only that the government owed almost \$30 billion in Tesobonos (\$16.1 billion to foreign investors), but that it was facing enormous difficulties to roll-over them. While the massive Cetes/Tesobonos swapping (see Chapter 5) was far from being a secret (the results of the weekly auction held by the Bank of Mexico were public) apparently few had calculated the aggregate, and even those that were aware of the massive swapping apparently foresaw no hurdles. Even U.S. government analysts expected that Mexico would be able to roll-over the Tesobono debt without problems (GAO 1996, 100). With the stock of Tesobonos being five times that of reserves,⁶⁴ panic erupted, as their holders (correctly) deduced that Mexico would be unable -on its own- to pay them. From that moment it became impossible for the government to auction any more Tesobonos.⁶⁵ The sense of financial meltdown was just heightened by the lack of an adjustment programme, and by the resignation of Serra on 29 December, after only four weeks as Finance Minister. He was substituted by Guillermo Ortiz, Minister of Communications, who had been Deputy Minister of Finance during the Salinas administration.

On 3 January 1995, an adjustment programme, the Unity Agreement to Overcome the Economic Emergency (AUSEE) was presented. Arguably it would have been acceptable if it had been announced on 19 December, and there were not \$30 billion of Tesobonos. Moreover, some of its macroeconomic goals seemed blatantly unrealistic, such as a projected inflation of 19.0 percent for 1995, when the peso had accumulated a nominal depreciation of 50 percent in just a few days. It also lacked the proposal of comprehensive structural reforms.⁶⁶ Additionally, even more unrealistic seemed the financial support available. The previous day, on 2 January, the U.S. announced a \$18.0 billion rescue package. The \$6 billion swap facility available within NAFA was increased to \$9 billion (with an additional \$3 billion short-term facility, with Treasury and Federal Reserve each participating up to \$1.5 billion). Also, the existing C\$1 billion swap facility between the Bank of Canada and the Bank of Mexico was supplemented by an additional C\$500 million (with the total being equivalent to approximately \$1.1 billion). The action was taken in the context of the North American Financial Group. Another \$5 billion would come from the BIS, and \$3 billion from international banks. It was crystal clear that the amount was far from enough to pay the Tesobonos, and even less sufficient to additionally finance the current account deficit of \$14 billion that the government projected in the AUSEE. The government argued that

⁶² Bentsen resigned then, as President Clinton was about to start his second term in office in mid-January 1995, and arguably also because the last weeks of December were a usually uneventful time of the year.

⁶³ See *Financial Times* (1994).

⁶⁴ It must be pointed out that timely information on the amount of reserves held by the Bank of Mexico was not available, but it was clear to the markets that the stock was around or under the \$10 billion mark. Even if that was taken as the amount of reserves, it was only one third of what was needed to liquidate the Tesobonos.

⁶⁵ As detailed in Chapter 4, if there is no creditworthiness, there is no interest rate that can tempt lenders into granting a loan.

the current account deficit would be financed with FDI and some external indebtedness. With confidence shattered, it was not obvious who was going to invest or lend that amount.

On January 9, the Bank of Mexico announced drawings on the NAFA swap facilities including \$500 million from U.S. and C\$83 million from the Bank of Canada.⁶⁷ On January 9, both U.S. and Mexican monetary authorities intervened in foreign exchange markets to stabilise the value of the peso. The peso indeed stabilised, but just for a few days (Figure 6.2).

While Rubin was confirmed by the U.S. Senate, Ortiz dealt with Lawrence Summers, then Under-secretary for International Affairs. On January 12, just one day after Rubin took office at the Treasury, President Clinton announced a proposed \$40-billion loan guarantee package for Mexico and began seeking congressional approval.⁶⁸ In exchange, Mexico would pay a fee and a supplemental interest rate on any guaranteed borrowing. Also, after quick negotiations, it was announced that the Mexican government had requested an 18-month stand-by arrangement from the IMF, for a total equivalent to \$7.8 billion (300 percent of Mexico's quota, the maximum amount available). There was apparently enough money to finance the stabilisation programme, and pay the Tesobonos. During a few days confidence seemed to return (Figure 6.2). However, the proposal became rapidly unpopular in Congress. After a few weeks it became clear that the proposal would be rejected if voted, and by the end of the month panic started once again, panic that translated into huge capital outflows. Not only those that cashed their Tesobonos left the country without even touching Cetes (which were offering stratospheric interest rates, see Table A7), but also foreign investors in Mexican stocks cashed them and fled along (Figures 6.3 and 6.4).

A bold initiative was needed to restore confidence. By then, several LDCs had been affected by the Mexican crisis -a contagion that would become known as the "Tequila Effect". Assistance to Mexico would not only help the country⁶⁹, but also limit the contagion. On 31 January, the U.S. government announced a financial rescue package of \$48.8 billion. The U.S. portion of this package included up to \$20 billion in currency swaps and securities guarantees from Treasury's ESF, which the Treasury Secretary would use for certain authorised operations without a congressional appropriation. On the same day, the IMF announced an 18-month, \$17.8-billion standby credit arrangement for Mexico. The multilateral assistance package also included \$10 billion from other industrial countries through the BIS (doubling the original commitment announced previously), \$1 billion from Canada (as formerly agreed), and \$1 billion from Brazil and Argentina.⁷⁰ Both the U.S. and IMF assistance packages for Mexico were unprecedented (Tables 6.13).

⁶⁶ See Nafinsa (1995ba) and Table 6.15 for the AUSEE terms and its macroeconomic framework.

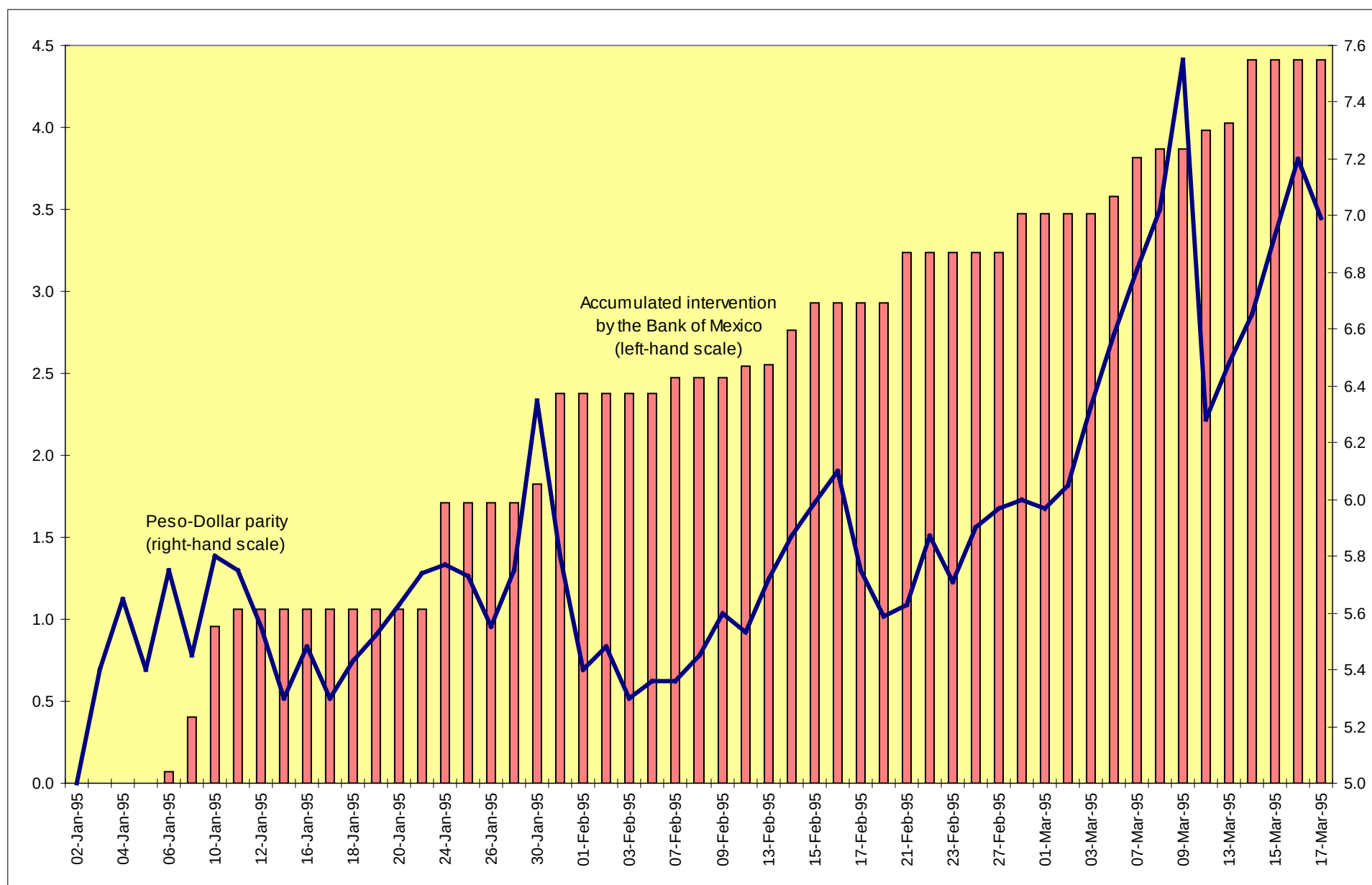
⁶⁷ This announcement marked the beginning of a radically different policy by the Bank of Mexico: to inform regularly of the amount of its international reserves, a statistic that previously had almost been a state secret.

⁶⁸ Moulded on the \$10 billion loan guarantees provided to Israel in 1992.

⁶⁹ And the U.S., that had issues such as trade and illegal immigration to worry about.

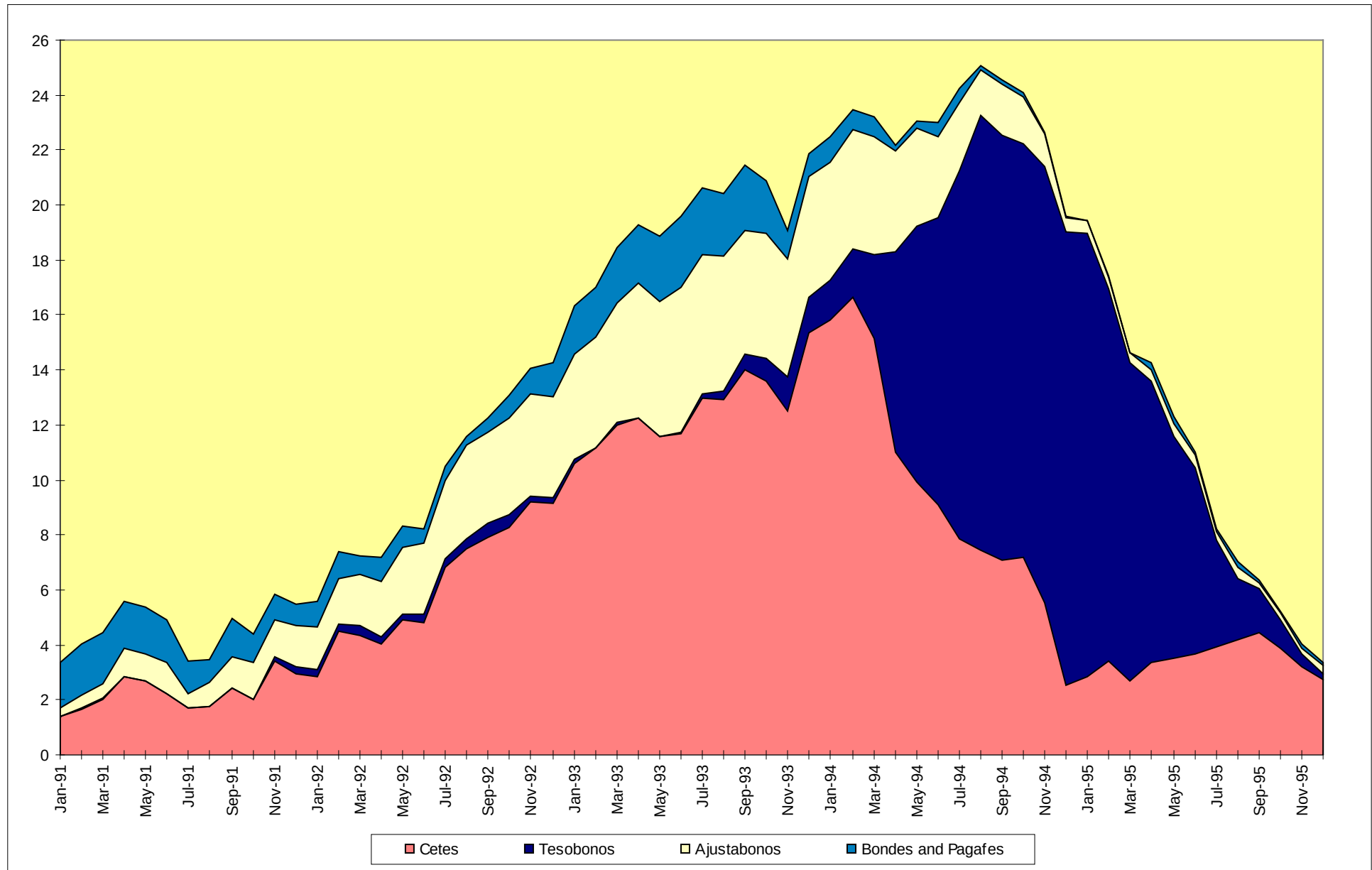
⁷⁰ The Canadian participation came from the NAFA swap arrangements. The initial commitments from Brazil and Argentina were withdrawn when these countries experienced a reaction from Mexico's crisis, and capital fled. There was also an announcement of efforts to raise funds from a group of international commercial banks and a group of investment banks.

Figure 6.2. Accumulated Intervention by the Bank of Mexico in the Exchange Markets and the Peso-Dollar Parity, January to Mid-March 1995^a
(billion dollars and pesos per dollar)



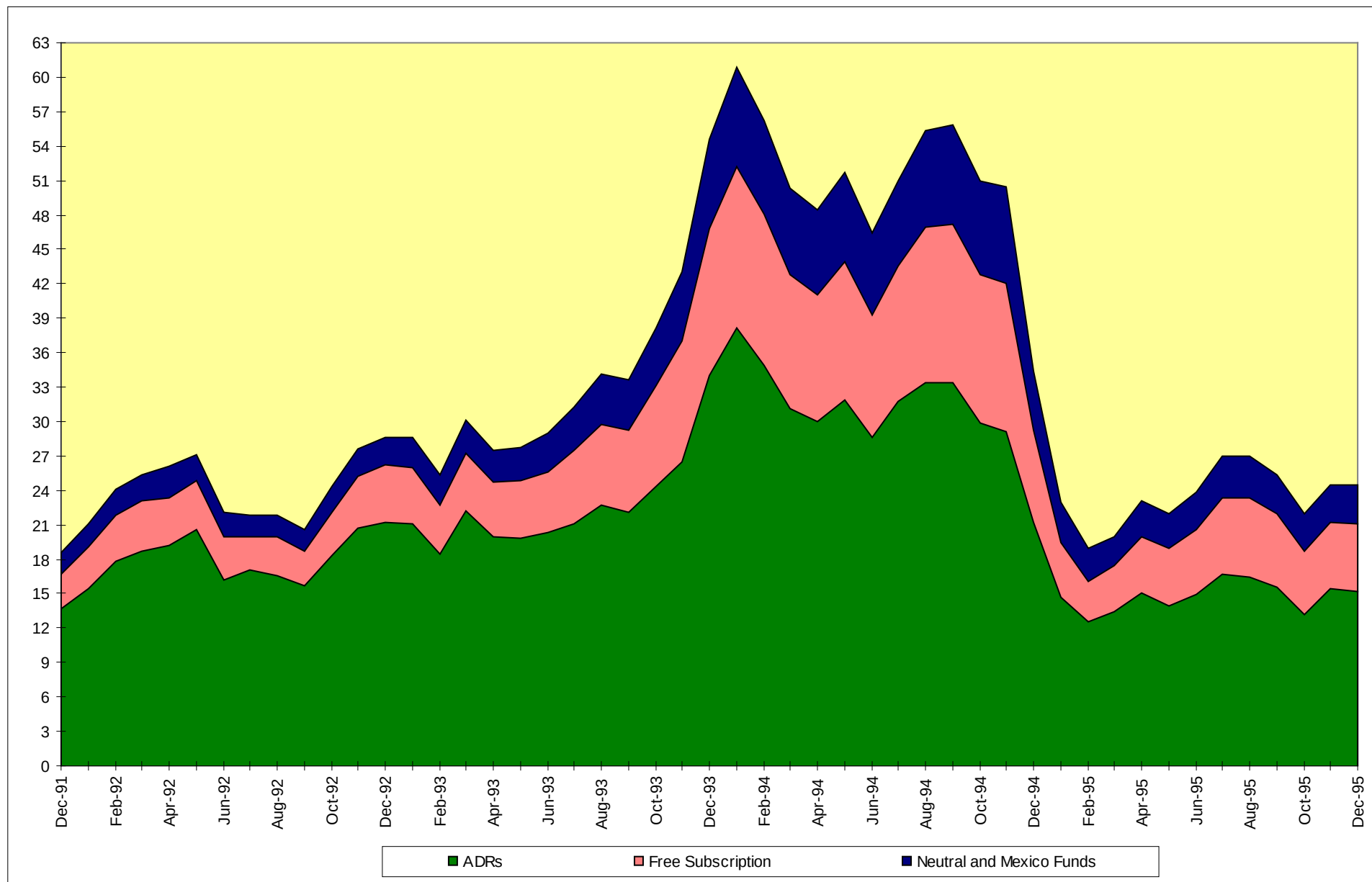
a. Intervention heavily concentrated in the period depicted: from 21 March to 8 November was a mere \$15.0 million (on 30 May), and from 9 November to 31 December it amounted to \$505.0 million.
Source: Elaborated with data from Banco de México (1995b and d).

Figure 6.3. Foreign Investment in Government Securities, 1991-95
(billion dollars)



Source: Table B27.

Figure 6.4. Foreign Investment in the Stock Market, 1991-95
(billion dollars)



Source: Table A31.

Table 6.13. Key Elements of the Agreements Between Mexico and the U.S. Treasury, 1995

Dates: Announced, 31 January; Subscribed, 21 February. Validity: One year, with an optional 6-month extension. Total Amount: Up to \$20 billion	
Mechanisms	
1) Framework Agreement (short-term currency swaps)	
• Amount: up to \$9 billion. The Federal Reserve increased its swap arrangement with the Bank of Mexico to \$6 billion until 31 January 1996. In exchange, the Treasury has provided the Federal Reserve with assurances of repayment of any drawings under the increased swap arrangement outstanding for longer than 12 months. The resources would come from the Federal Reserve and/or the ESF; • Maturity: 90 days, renewable for a further 90 days; • Interest rate: the 91-day Treasury bill rate.	
2) Medium-Term Stabilisation Agreement (medium-term currency swaps)^a	
• Amount: up to \$20 billion, when added to outstanding short-term swaps and guarantees. Resources to come from the ESF; • Maturity: Up to five years; • Interest rate: to be determined at the time of each swap disbursement^b.	
3) Guarantee Agreement (guarantees on Mexican securities)^a	
• ESF acts as guarantor of payment of all or part of the principal of and interest on securities to be issued by the Mexican government; • Amount: up to \$20 billion, when added to outstanding short- and medium-term swaps; • Maturity: no guarantee beyond 10 years; • Interest rate: to be determined at the time of each guarantee request^c.	
Conditionality	
• Before each request for funding, Mexico submitted to the Treasury a written description of Mexico's financial developments, the intended use(s) of the proposed funds, and how such use(s) were consistent with the financial plan. No funds would be provided if the Treasury determined that the proposal to be inconsistent or not viable; • No funds would be provided if the Treasury determined that Mexico's economic policies were not consistent with the targets set out in the agreement with the IMF.	
Mexican Payments Guarantee (Oil Proceeds Facility Agreement)	
• Proceeds from Pemex's sale of oil to customers were deposited into an account at the New York branch of a large international bank and transferred to a special account at the Federal Reserve Bank of New York under the terms of an irrevocable, acknowledged instruction; • The Federal Reserve Bank of New York, acting on behalf of Treasury, had a right of set-off against these deposits if Mexico failed to make interest and principal payments to the United States under the swap or guarantee agreements.	

a. As the maturities offered by these agreements were unprecedented (above six months), on 9 March 1995, President Clinton sent a written statement to Congress saying that unique or emergency circumstances existed.

b. Interest rates were intended to cover the cost of funds to Treasury and were set at a rate at least sufficient to cover the current U.S. government credit risk cost for Mexico. For each medium-term swap disbursement, the premium was to be the greater of (1) a rate determined by the U.S. government's Interagency Country Risk Assessment System (ICRAS) as adequate compensation for the sovereign risk of Mexico; or (2) a rate based on the amount of U.S. funds outstanding to Mexico from short-term swaps, medium-term swaps, and guarantees at the time of disbursement. This rate is between 225 basis points (if \$5 billion or less is outstanding) and 375 basis points (if \$15 billion or more is outstanding). For example, the rates were 7.8 percent for funds disbursed in March 1995, 10.16 percent for funds disbursed in April and May, and 9.2 percent for funds disbursed in July.

c. Mexico was to pay the Treasury a guarantee fee calculated using a present value formula. The variables in the formula included the amount to be guaranteed, the maturity of the debt securities, Treasury's borrowing rate for the same maturity, Mexico's cost of borrowing with the guarantee, and an appropriate credit risk premium, which is the greater of the ICRAS premium, or 225 to 375 basis points, depending on the total amounts of swaps and guarantees outstanding.

Source: Constructed with information from GAO (1996, 111-123).

Unprecedented, but the U.S. government was extremely careful to impose severe conditions on the Mexican government. It can be argued that the U.S. authorities were convinced that the country was

just suffering from a liquidity crisis, and that therefore, following the Bagehot recommendation, they were willing to provide plenty of resources, but at a hefty price. Probably more important was the fact that the Executive Branch (President Clinton and the Treasury) had by-passed Congress, and were keen to be very careful not to add insult to injury by providing taxpayers' money at a seemingly cheap rate. Estimations by the Mexican Exchequer considered that for the first \$10 billion the cost would average 2.5 percentage points above the yield of 5-10 year Treasury Bills (a cost comparable to what the Mexican government paid for its bond issues during 1994), and 3.0 percentage points for the second \$10.0 billion (SHCP 1995c, 39/95).

The programme accorded between Mexico and the Fund, announced on 1 February, also had no precedents in its amount: the 18-month standby credit was for SDR12,070.2 million (approximately \$17.8 billion). Of that total, \$7.8 billion became available immediately. The IMF agreed to provide the remaining \$10 billion to the extent that a proposed package from a group of unspecified non-G-10 countries fell short of its \$10-billion target. This was the largest loan standby arrangement ever extended to one country, and the largest standby arrangement that the Fund had ever extended as a percentage of a country's IMF quota. Mexico's quota was about SDR1753.3 million (\$2586 million). Therefore, the credit was equivalent to about 688 percent of its quota over an 18-month period, or 459 percent of its quota on an annual basis, very much above of the 100 percent usual annual limit (GAO 1996, 128). However, it was clear from the beginning that Mexico did not intend to use all the resources at its disposal, and willing to push the stabilisation efforts even further if the need arose. The Economic Policy Memorandum that the government and the Bank of Mexico sent to Michel Camdessus, the Managing Director of the organism, clearly stated that

... Should the (economic) situation stabilize soon -as we expect- Mexico *will not draw some of the future instalments*, and, if (the amount of) reserves permit, *will make advance payments to the Fund*. The government and the Bank of Mexico... will take additional measures if necessary (Ortiz and Mancera 1995bb, 22-23).

The whole rescue package was conceived as part of a central strategy: the markets needed to see that a lot of money was at Mexico's disposal: enough for all the holders of Tesobonos to cash them, to strengthen the reserves and reduce the volatility of the peso, and to finance any external imbalance when foreign capitals were fleeing the country instead of entering it. The money mountain had to be quite visible to tranquillise everybody, even if Mexico did not intend to use a great chunk of it. With that perspective the Treasury and IMF agreements were devised and carried out. All the Agreements between Mexico and the U.S. government were subscribed on 21 February. While Mexico officially was bound to follow an economic policy that would allow it to repay the resources obtained within the agreed time framework, the economic policy actions that were presented with the Agreements (Table 6.14) were also contained in the IMF programme.

It was the turn for the government to dig its heels in deeper. A "reinforced" AUSEE (the Action Programme to Reinforce the AUSEE, or PARAUSEE) was announced on 9 March (Nafinsa 1995bc, 1995bd). The differences between both were radical: the macroeconomic targets, such as the expected inflation and average exchange rate during 1995, were much more realistic. The government took a radical position: rather to have a short draconian adjustment than a prolonged one that was not so

tough⁷¹ The external sector was to have a brutal correction in its imbalance: the PARAUSEE established that the current account deficit would be reduced to an equivalent of 0.85 percent of GDP in 1995, from almost 7.0 percent in 1994. As the government did not intend to use but a fraction of the resources available from the rescue package, it had to reduce its needs of foreign savings. However, the cost to pay in terms of variables such as growth and employment was huge, and without precedent in modern economic history: GDP dropped in real terms 6.2 percent, while unemployment –and crime– skyrocketed.⁷² The adjustment was fierce, and the contrast enormous with what had been the original projections for 1995 (Table 6.15).

Table 6.14. Economic Policy Actions by Mexico Presented in the U.S.-Mexico Agreement^a

Federal Government
• Attain a public fiscal surplus equivalent to 0.5% of GDP in 1995 and take additional fiscal measures, if necessary, to strengthen the economic programme; • Accelerate structural reforms (i.e. privatisation and deregulation) in the transportation, telecommunications, and banking sectors; • Raise \$12-\$14 billion from privatisation and concession operations during the following three years; • Adjust credit and interest rate policies quickly to regain the foreign exchange spent in intervention operations; • Aim to develop futures and forward exchange markets; • Improve the transparency of operations of the government and the Bank of Mexico.
Bank of Mexico
• Maintain an upper limit for net domestic credit expansion of 10 billion Mexican pesos for all of 1995; • Restrain base money growth backed by credit operations to below the rate of inflation; • Maintain tight money conditions to guarantee substantially positive interest rates.

a. The Federal Government and the Bank of Mexico respective actions are presented separately because the central bank became independent in April 1994.

Source: Constructed with information from Nafinsa (1995bd).

The financing for that adjustment was in place. The conditions of the agreements with the U.S. government created an incentive for the Mexican government to appeal first to the short-term swaps, and then to the medium-term ones, because of their respective cost (and for the same reason to use the guarantees as a final option). While the agreements were negotiated and approved by the U.S. government, Mexico had obtained resources from the swaps available through NAFA: in mid-January \$1 billion was swapped for pesos, and at the beginning of February \$2 billion more would engross the reserves. On 6 February, the first tranche from the agreement with the IMF poured in, provoking the most spectacular jump in Mexican reserves in the history of the country (Table 6.16, Figure 6.5).

⁷¹ Apparently President Zedillo aimed to duck from a experience like the one endured by President De la Madrid (1982-88), that had to apply a series of economic adjustments during his whole period in office (see Chapter 3).

⁷² The number of registered employees at the Social Security Institute plunged by almost one million in a matter of months, while the open unemployment rate more than doubled during the same time

Table 6.15. Macroeconomic Projections for 1995 and Actual Outcomes

	Original Projections ^a (15.12.94)	AUSEE ^b (03.01.95)	PARAUSEE ^c (09.03.95)	1995 Outcomes ^d
GDP				
Billion Pesos	1379.6	1484.0	1669.0	1837.8
Billion Dollars	394.2	329.8	278.2	286.3
Real Growth	4.00	1.50	-2.00	-6.15
Public Finance Balances				
Economic	-	0.59	0.48	0.00
Primary	-	3.43	4.41	4.70
Inflation				
Annual	4.0	19.0	42.0	52.0
Average	5.4	15.9	30.6	35.0
28-day Cetes Average	11.0	24.0	40.3	48.4
Trade Balance ^d				
Nominal	-	-4950.0	n.i.	7088.4
GDP Percentage	-	-1.5	n.i.	2.48
Current Account Deficit				
Nominal	31100.0	14098.0	2376.1	1576.6
GDP Percentage	7.89	4.27	0.85	0.55
Exchange Rate Average	3.50	4.50	6.00	6.42
Minimum Wage Increase	7.0	7.0	19.8 ^e	31.8 ^f
Public Prices Increase	4.0	10.0	36.8 ^g	-

a. Presented to Mexican Congress on 9 December 1994.

b. Unity Agreement to Overcome the Economic Emergency, announced on 3 January 1995.

c. Action Programme to Reinforce the AUSEE, announced on 9 March 1995.

d. Including the external trade from the maquila industry.

e. The original PARAUSEE stipulated a minimum wage increase of 10 percent effective from 1 April. However, the unions rebelled against the agreement and finally settled for an increase of 12 percent, that combined with the 7.0 percent increase in January gives the composite figure of 19.8 percent.

f. A wage increase of 10 percent was granted on 4 December, giving a composite wage increase of 31.8 percent for the whole year.

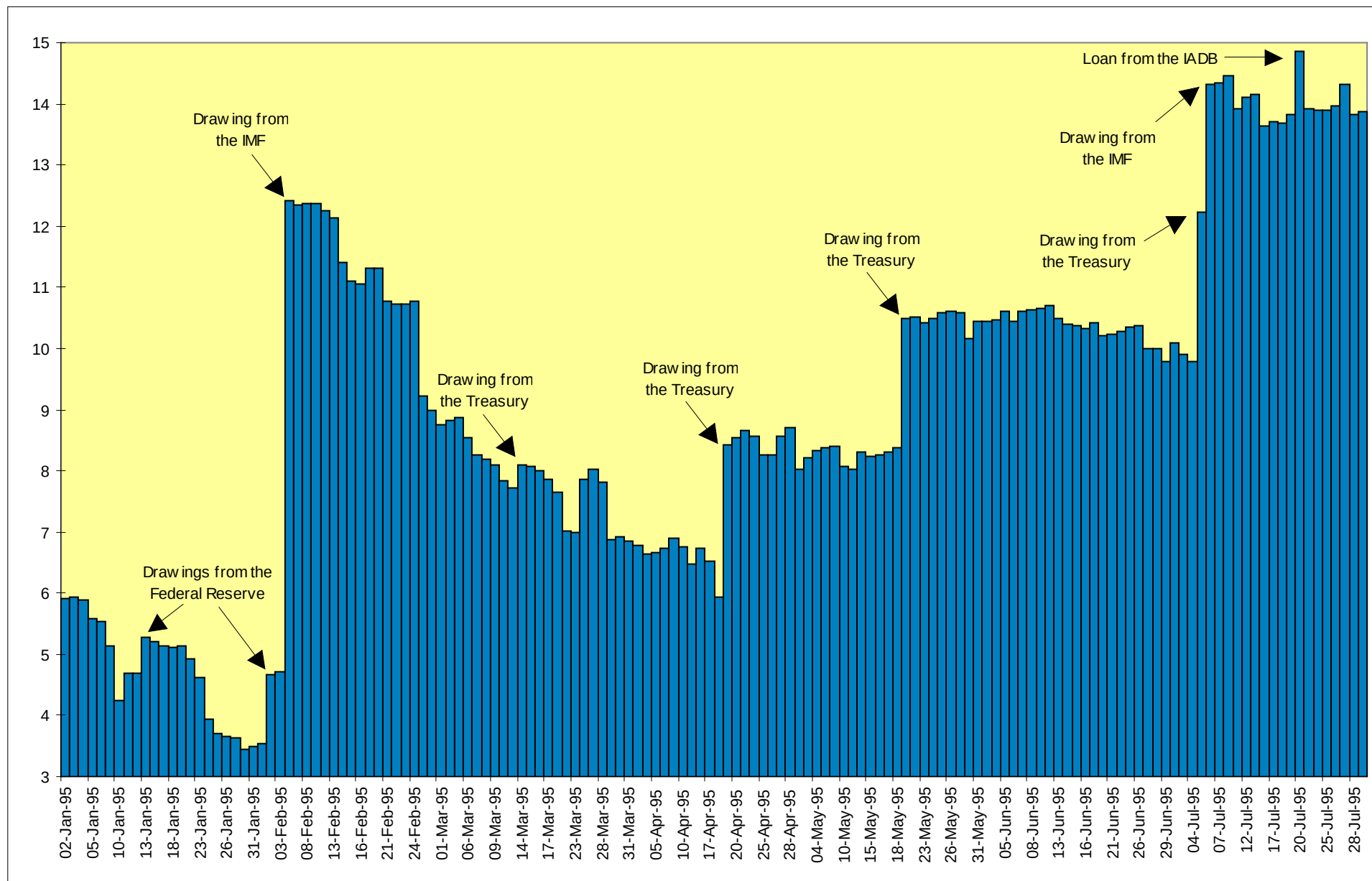
g. Average of the 48.5 percent increase to gasoline and diesel; 32.0 percent to electricity and gas, and 30.0 percent to other public sector prices.

Source: Nafinsa (1995ba, 14-15), Banco de México (1996a, 1996b), Tables A1, A3 and A14.

Those reserves were soon put to use, to pay the Tesobonos (see Figures 6.5 and 6.6) and the liquidation of portfolio investments (see Figure 6.4), and external debt payments made by the Mexican private sector. Reserves were also used to intervene in the exchange markets, to reduce the peso volatility (see Figure 6.2), and to finance other government needs. As a result, the replenished reserves were eaten up fast (see Figure 6.5). At the end of February, just a few days after the U.S.-Mexico agreements, the Bank of Mexico called an auction to buy Tesobonos at a discount. With \$20.3 billion in circulation, the Bank of Mexico cashed Tesobonos with a nominal value of \$1551 million for \$1441 million -a meagre discount of 7.1 percent.⁷³ (Banco de México 1995a, 187-188).

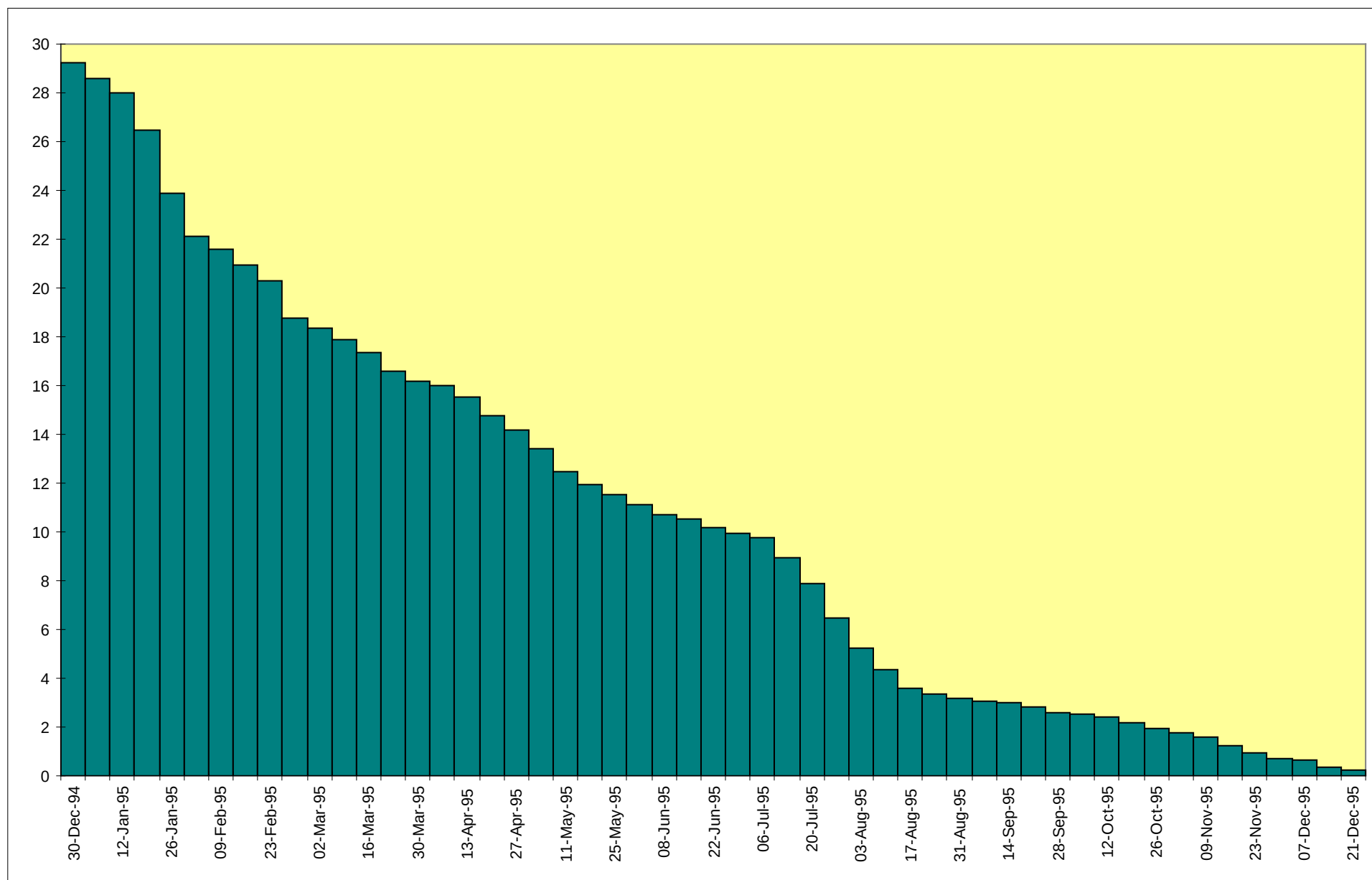
⁷³ Arguably such a reduced discount shows that the Agreements provided a boost of confidence in the owners of Tesobonos - though not enough to keep their money in Mexico.

Figure 6.5. Evolution of International Reserves at the Bank of Mexico, January-July 1995
(billion dollars)



Source: Elaborated with data from Table 6.16 and Banco de México (1995b).

Figure 6.6. Evolution of the Stock of Tesobonos during 1995
(billion dollars)



Source: Elaborated with data from Table B26.

Table 6.16. Disbursements and Amortisations under the U.S.-Mexico Agreements, 1995-97
(million dollars)

Under the U.S.-Mexico Agreements					
Disbursements, Amortisations and Accumulated Amount					
Borrower ^a	Date	Disbursement	Amortisation	Accumulated	
Bank of Mexico	11.01.95	500	0	500	
Bank of Mexico	13.01.95	500	0	1000	
Bank of Mexico	02.02.95	2000	0	3000	
Bank of Mexico	14.03.95	0	1000	2000	
Federal Government	14.03.95	3000	0	5000	
Federal Government	19.04.95	3000	0	8000	
Federal Government	19.05.95	2000	0	1000	
Federal Government	07.07.95	2500	0	12500	
Bank of Mexico	11.10.95	0	700	11800	
Bank of Mexico	29.01.96	0	1300	10500	
Federal Government	05.08.96	0	7000	3500	
Federal Government	16.01.97	0	3500	0	
Total		13500	13500	0	
Medium-Term Swaps with the ESF-Treasury					
Swap	Date	Amount	Maturity ^b	Cost	
Medium-Term Swap 1	14.03.95	3000	2.95	7.50	
Medium-Term Swap 2	19.04.95	3000	3.50	10.16	
Medium-Term Swap 3	19.05.95	2000	3.50	10.16	
Medium-Term Swap 4	07.07.95	2500	3.45	9.20	
Total		10500	3.33	9.17	
From Multilateral Organisations					
IMF		World Bank		IADB	
Date	Amount	Date	Amount	Date	Amount
06.02.95	7725	10.07.95	101	27.07.95	375
06.07.95	2024	24.07.95	148	10.10.95	101
28.08.95	1643	25.08.95	52	22.11.95	31
20.12.95	1639	29.08.95	274	14.12.95	31
		14.09.95	32	15.12.95	17
		03.10.95	1	19.12.95	4
		13.11.95	20	20.12.95	39
		15.11.95	1		
		22.11.95	4		
		20.12.95	4		
		26.12.95	20		
		27.12.95	18		
Total	13031		675		598
Great Total					27159

a. All the borrowing with the Bank of Mexico were short-term swaps with the Federal Reserve; all borrowing from the Federal Government were

b. Average maturity in years.

Source: Constructed with data from Nafinsa (1997ba, 5-6).

A few weeks after the U.S.-Mexico agreements had been subscribed, apparently the government decided to change tack and use medium-term financing.⁷⁴ In mid-March \$3 billion would be requested from the ESF. \$1 billion virtually never made it to the Mexican account, as \$500 million were paid to the ESF, the amount drawn on 11 and 13 January, and the other \$500 million were paid to the Federal Reserve, to cover the swaps activated on the same days. The amount drawn and, moreover, the fact that such a financial jugglery was implemented (with the assent of the U.S. authorities) clearly shows the desperate situation that prevailed. Once per month during April and May two more medium-term swaps were activated with the ESF. On 20 March, a special window was established by the central bank to liquidate the Tesobonos at their face value when due, to avoid additional pressures in the exchange markets. During the rest of 1995 \$11.1 billion would be paid through this facility (Banco de México 1995a, 188-189). During the second semester the inflows from loans by the U.S., the IMF, and the development banks were also important, while a medium-term swap was activated again in July. In that month the indebtedness between Mexico and the U.S. would reach its apex, at \$12.5 billion. During 1995, Mexico received a gross inflow of loans from the U.S. and multilateral organisations of \$27.2 billion, arguably far away from the nearly \$50 billion that were supposedly ready to support the Mexican economy, but an astonishing amount anyway (see Figure 6.5).

Signs of a successful macroeconomic adjustment became clearly visible from the first semester. The adjustment on public finances was relatively minor when considering the fiscal situation that existed in the previous debt crises of 1976 and 1982 (see Table A3). However, the correction in public finances was draconian, moreover considering that as domestic interest rates skyrocketed the nominal internal debt service equally exploded, and that the profound 1995 recession brought along a collapse in revenues and pressures to increase expenditures. PSBR moved into a surplus, equivalent to 0.7% of GDP. The external turnaround was equally swift, with the trade account moving from deficit to surplus since February (see Table A13). The current account swing was even more impressive, passing from a deficit equivalent to 7.0% of GDP to a deficit of only 0.6% (during the second quarter of 1995 it was in surplus).

Mexico returned to the international capital markets at the beginning of May, after just five months of isolation, but paying a hefty price for borrowing. Virtually the maximum spread the government was paying during 1994 was one point above LIBOR. On average, for loans over \$100 million, Mexican public sector borrowers paid an average above LIBOR of 0.644 percentage points during 1994. From May to August 1995, for all the borrowing by the Mexican public sector, the average was 4.803 percentage points, 7.5 times more (Table 6.17). Sizeable amounts, however, would have to wait until the second half of 1995, and even then those loans were relatively small. It was always clear that the aim of the authorities was to regain that access as soon as possible, and from that base initiate a new cycle of indebtedness, to reimburse the Treasury and the IMF. In that sense the triumph of re-entering the markets was relatively hollow. The most important source of funds during the second half of 1995 was the IMF.

⁷⁴ \$6.0 billion were still available under short-term swaps, but with a maximum maturity of 180 days.

Table 6.17. Bond Issues During 1994-95
(million dollars, months, and percentage points above LIBOR)

Borrower	Date	Amount	Maturity	Spread
NAFIN	02.94	\$150.0	24	0.875
PEMEX	03.94	\$300.0	60	1.000
NAFIN	03.94	\$250.0	60	1.000
PEMEX	04.94	\$200.0	36	0.770
PEMEX	04.94	\$200.0	36	0.850
BANCOMEXT	04.94	\$250.0	36	0.124
PEMEX ^a	11.94	\$204.3	48	1.050
NAFIN	04.05.95	\$110.3	12	3.50
NAFIN	04.05.95	\$73.7	7	2.25
NAFIN	09.05.95	\$50.0	12	6.00
NAFIN	15.05.95	\$28.0	12	8.00
BANCOMEXT	23.05.95	\$30.0	12	5.80
NAFIN	24.05.95	\$10.0	12	5.60
BANCOMEXT	31.05.95	\$75.0	12	5.44
BANCOMEXT	23.06.95	\$300.0	24	5.51
UMS	20.07.95	\$1000.0	24	5.57
UMS	05.12.95	\$1,500.0	12	0.00 ^b

a. Bond originally in Japanese yen (¥20.0 billion).

b. The bond paid the Cetes interest rates minus six percentage points or 12-month LIBOR with no spread.

Source: Constructed with data from Table B15. See also Table B16.

Even if the access to the capital markets had been opened, it is clear that liquidity problems continued, as Mexico faced problems paying the short-term swaps owed to the ESF and the Federal Reserve (provided in equal amounts by both sources). As it has been detailed, on 14 March the Mexican government paid the \$1 billion drawn from both sources on the previous 11 January and 13 January -though that payment was financed with a medium-term swap of \$3 billion from the ESF made the same day. There was not going to be a similar jugglery when the \$2 billion short-term swap on 2 February was due on 3 May, and it was rolled-over for a further 90 days. And on 1 August the swap had to be rolled-over again for a second time, even when the terms in the framework agreement for those short-term swaps clearly stated that such instruments would be rolled-over only once (see Table 6.13). Finally, on 11 October, and in a gesture in the setting of a State visit to Washington by President Zedillo, the government paid \$700 million, a movement that was presented as a sign of the recuperation of the Mexican economy. In a much less publicised move, the \$1.3 billion yet unpaid were rolled over for a fourth time, with the new maturity date set at 29 January 1996, practically a year after the swap had been activated.

However, the omens were much more favourable for Mexico in the international capital markets. A yen bond was increased in August from ¥700 billion (\$770 million) to ¥1,100 billion (\$1.1 billion) because of the good reception it had (SHCP 1995c, 149/95). The \$700 million payment had been financed with a bond issued in the German capital markets, and the original issue of DM750 million (\$525 million) had been increased to DM1000 million (\$702 million) also because of a enthusiastic reception. The bond final amount was agreed just a few days before the payment to the ESF and the Federal Reserve, \$350 million to each, was made (SHCP 1995c, 170/95).⁷⁵ And as

⁷⁵ It can be argued, then, that the original intention of the Mexican government had been to pay only \$500 million on 11 October.

important as the amount was the maturity of that bond: five years, the longest since the beginning of 1994 (see Table B15). A one-year bond would follow in November 1995. Though of a short maturity, the initial \$500 million offer was tripled to \$1500 million.⁷⁶ But longer maturities were a fundamental factor that Mexican public borrowers needed to obtain in order to refinance the debt, as the average maturity of the medium-term swaps with the ESF was 3.3 years, and repayments to the IMF would start at the beginning of 1998 (and of course there were interest payments to be made). Thus, not only an important volume of borrowing was imperative in order to refinance the debt, but, ideally, for it to have maturities superior to at least five years.

The watershed in the maturity aspect was the bond issued in the German markets in January 1996. With a value slightly above the \$1 billion mark, it had a seven-year maturity. That bond allowed Mexico to finally pay the short-term swap that was still outstanding with the ESF and the Federal Reserve. From that moment onwards the Mexican government started a continuous process of refinancing, as bonds with medium- or long-term maturities were issued without problems (Figure 6.7). Several scheduled payments were met without fuss and, more important, payments in advance were made to the ESF and the IMF. Various operations with that aim were implemented during 1996 and the first quarter of 1997 (Table 6.18):

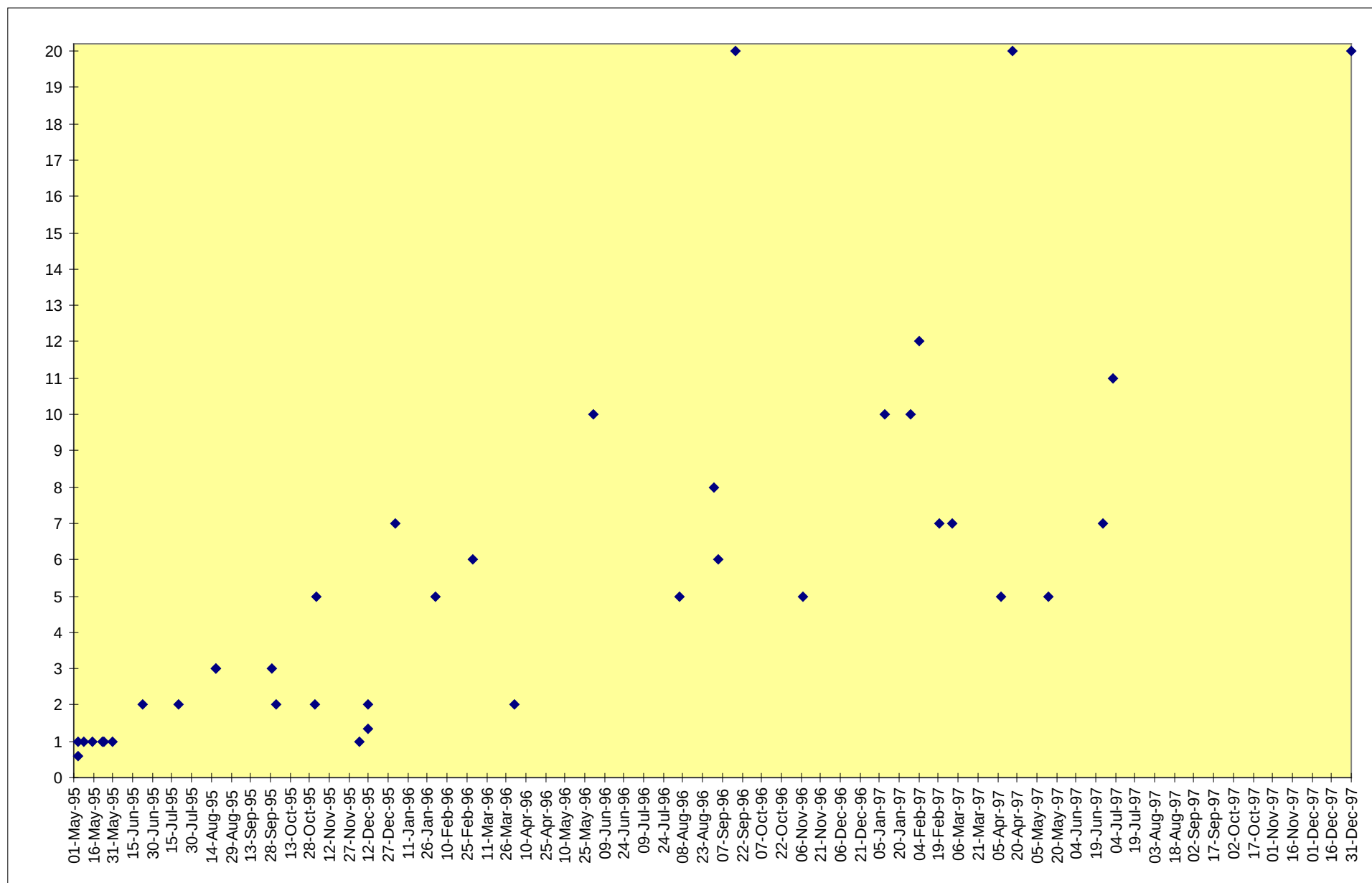
- A \$7.0 billion pre-payment to the ESF in August 1996, mainly financed with a jumbo-issue of \$6.0 billion of FRNs. Originally the government had aimed to pay \$4.7 billion in advance, issuing \$3.0 billion worth of FRNs, but the ebullient reception of the offer not only allowed to double it, but also to reduce the spread offered, from 212.5 basis points above LIBOR to 200 points (SHCP 1996Y, June, 109/96).⁷⁷ Therefore, there was also enough money for making some payments to the IMF;
- A SDR686 million (\$1 billion) payment in advance to the IMF, with resources originally earmarked to complete the \$4.7 billion, particularly a ¥100 billion (\$920 million) bond issued in the Samurai markets in June 1996. In January and February 1997 further pre-payments for a total of SDR1479 million (\$2.09 billion) were made, financed with various bond issues. The payments owed to the Fund were reduced, particularly those scheduled for payment during 1998 (Table 6.19).
- A \$3.5 billion pre-payment to the ESF in January 1997, financed with several bond issued and other sources.

The \$3.5 billion payment marked the end of the February 1995 agreements between Mexico and the United States, as all the debts acquired through its mechanisms were liquidated (Table 6.19). The Mexican government was able to declare that the refinancing of short-term debt was finished, and to point out that additional refinancing meant a debt with a longer horizon and lower costs, plus the fact that the oil guarantee scheme disappeared (see Table 6.13).⁷⁸ In Washington President Clinton proudly boasted that his support for Mexico had been correct and his critics wrong, while the U.S. had taken a leadership role to protect global prosperity.

⁷⁶ As it has been mentioned in Chapter 5, the increase in the amounts offered was something frequent in the international capital markets, though in the case of Mexico it certainly represented a sign of confidence from them.

⁷⁷ The FRNs were so popular because the oil guarantee scheme was transferred directly to them from the debt owed to the ESF. Therefore, that issue received the coveted investment grade by the main credit rating agencies.

⁷⁸ Even if the export revenues of Pemex had never been overtaken by the U.S. government, as Mexico never missed any interest or principal payments, it was nevertheless a matter of national pride to cancel a mechanism through which those revenues had to go through an account at the New York Federal Reserve Bank.

Figure 6.7. Maturity of Bond Issues by Mexican Public Borrowers^a, 1995-97
(years)

a. A 30-year Global Bond issued in May 1996 is not included because it was the result of an exchange of 30-year Brady bonds issued in 1990.

Source: Elaborated with Data from Table B15.

Table 6.18. Financing of Scheduled Payments and Pre-Payments to the U.S., Canada, and the IMF, 1995-97

Date	Amount	U.S. Federal Reserve Short-Term Swaps (\$2000 million) Financed with
30.10.95	\$700	- DM1000 million bond (\$700 million) issued in October 1995; - DM1500 million bond (\$1040 million) issued in January 1996. \$260 million from other operations not specified.
29.01.96	\$1300	
Date	Amount	U.S. Treasury-ESF Medium-Term Swaps (\$10500 million) Financed with
.08.96	\$7000	\$6000 million from FRNs issued in August 1996; \$780 million Brady Bonds liberated collateral; \$220 million from other debt issues done at the beginning of 1996. - DM1500 million (\$1000 million) bond issued in September 1996; \$550 million from cancellation of Pemex liabilities; ¥70 billion (\$650 million) bond issued in September 1996; - LIT500 billion (\$330 million) bond issued in November 1996; \$500 million from medium-term notes programme; \$470 million from the Global bond issued in January 1997;
15.01.97	\$3500	
Date	Amount	Bank of Canada Financed with
29.01.96	\$C217 (\$158)	Operations not specified.
Date	Amount	International Monetary Fund Financed with
01.08.96	SDR686 (\$1000)	¥100 billion (\$920 million) from the Bond issued in June 1996; \$80 million from operations not specified.
15.01.97	SDR1053 (\$1500)	
27.02.97	SDR426 (\$590)	\$530 million from the global Bond issued in January 1997; \$575 million from Brady bonds liberated collateral in previous months; \$395 million from operations not specified; - LIT250 billion (\$150 million) from a LIT500 billion bond issued in January; - DM750 million (\$440 million) from a DM1500 million bond issued at the beginning of February.

Source: Constructed with data from SHCP press bulletins, available at the internet site <http://www.shcp.gob.mx>.

Table 6.19. Obligations with the IMF and Repurchases, 1996-2002 (million SDRs)

	1996	1997	1998	1999	2000	2001	2002	Total
Original ^a	728	581	2,612	4502	2167	39	19	10648
Advanced Repurchases								
01.08.96	686	0	-343	-343	-	-	-	-
17.01.97	-	1053	-1053	-	-	-	-	-
27.02.97	-	426	-213	-213	-	-	-	-
14.03.97	-	145	-72	-73	-	-	-	-
08.04.97	-	162	-81	-81	-	-	-	-
28.04.97	-	132	-66	-66	-	-	-	-
Total ^b	1414	2499	784	3726	2167	39	19	10648
Outstanding ^c	0	0	784	3726	2167	39	19	6735

a. Original payment schedule as of 1 December 1995.

b. Includes scheduled repurchases and advance repurchases.

c. As of April 30, 1997.

Source: Bank of Mexico (1998b, 220).

While the January 1997 pre-payments to the Treasury signified the end of a chapter, the story arguably continues with the permanent challenge faced by the government of refinancing its debts (see for example Table B13). During 1996 and 1997 the Mexican government continued with the exercises of paying or pre-paying debt with more debt (Table 6.20), always in the quest of looking for longer horizons and lower costs. Arguably the best example of the refinancing exercises was the payment in advance of the August 1996 FRNs (and used to pre-pay the Treasury). The resources to do that also came from debt -but with an average maturity of seven years and a lower cost (Table 6.21).

Considering that a country suffering a debt crisis is excluded from the capital markets, the Mexican 1994-95 crisis was certainly brief (five months) However, the return to a normal standing in those markets, shown by the reception to bond issues and their maturity, took practically a year.

Table 6.20. Payments and Pre-Payments of Debt and Debt/Debt Swaps, 1996-97

Debt Paid or Pre-Paid			Payment Financed with		
Type	Amount ^a	Due Date	Type	Amount ^a	Issue Date
Brady	\$2337	12.19	Global Bond ^b	\$1750	05.96
MTN	\$1500	11.96	Bond	\$675 from DM1500 (\$995)	09.96
			Bond	¥70 (\$640)	09.96
Brady	\$1240	12.19	Global Bond ^b	\$1000	09.96
Bond	¥30 (\$296)	03.97	Bond	LIT500 (\$310)	01.97
FRN	\$300	06.97	Bond	DM1500 (\$915)	02.97
FRN	\$1000	07.97	Bond	¥50 (\$407)	02.97

a. Dollars and deutschemarks in millions; yens and Italian lire in billions. b. Debt/debt swap, where the Brady bonds were swapped at market values, thus capturing a discount.

b. Debt/debt swap, where the Brady bonds were swapped at market values, thus capturing a discount.

Source: Constructed with data from SHCP, several press bulletins available at <http://www.shcp.gob.mx/difus/index.html>.

Table 6.21. Prepayment of \$6.0 Billion FRNs, 6 August 1997

Issued in 05.08.96. Average maturity: 3 years. Average cost: 8.39%.			
Financed from various sources. Average Maturity: 7 years. Average cost: 7.98%			
Type	Amount ^a	Issue Date	Maturity
• Global bond	\$500 from a total of \$1500	01.97	10
• Samurai bond	\$590 from a total of ¥100 (\$796)	04.97	5
• Italian Bond	LIT500 (\$290)	04.97	20
• Long-term syndicated loan	\$200	-	7
• British Bond	£300 (\$490)	05.97	5
• Italian Bond	LIT500 (\$300)	06.97	7
• German Bond	DM750 (\$430)	07.97	11
• Other operations	\$200	-	-
• Floating-rate bond	\$1000	-	5
• Several MTNs	\$500	-	7
• Short-term syndicated loan	\$400	-	1
• Several MTNs	\$1100	-	8
Total	\$6000		6.8

a. Dollars and deutschemarks in millions; yens and Italian lire in billions.

Source: SHCP, press bulletins 88/97 and 114/97, available at <http://www.shcp.gob.mx>.

This chapter has analysed thoroughly the three debt crises suffered by Mexico in its recent history. Any conclusions that can be derived from them represent important lessons, not only for Mexico, but also for other participants in the international capital markets (sovereign borrowers, private lenders, industrialised governments, and IFIs) and its (academic and non-academic) observers. Instead of the usual conclusions (as presented in each of the preceding chapters), Chapter 7 will detail the lessons from the Mexican debt crises.

CHAPTER 7

LESSONS FROM THE MEXICAN DEBT CRISES

7.0. INTRODUCTION

Mexico arguably has the dubious distinction of having the richest experience in dealing with external debt crises, at least in contemporary history. That experience as a sovereign borrower, with three crises in less than 20 years, has many lessons to teach not only to Mexico itself, but also to other LDCs, industrialised government and, last but not least, those that are willing to lend resources in the international capital markets. Two of those crises had a considerable impact on the world economy: in 1982 the outcome that followed was the international debt crisis, in 1995 it was the so-called Tequila effect. Just the fact of being *the* country that started a contagion or domino effect, not one of the several affected by it, is enough for Mexico to be considered a prime object of analysis.

Based on the previous chapters, the objective of the present one is to detail the lessons that can be derived from the Mexican experience regarding external debt and debt crises. The objective of this chapter is to provide a set of general conclusions, that is, it will not be a repetition of the conclusions that were reached in each one of the previous chapter.¹

The first section emphasises two of the most common myths that prevail about the external indebtedness process by sovereign countries, and that have permeated in all kinds of analyses of the topic. One is that countries will, eventually, pay their debts one day. The second (in a certain way a corollary of the first one) considers that a country services (or will eventually service) its debts with its own resources. The facts that are presented in place of those inaccurate beliefs are the base of the following section, which elucidates the question of what constitutes the debt payment capacity of a sovereign borrower.

Section 7.3 studies the Mexican lessons of how and why a country falls into a debt crisis. The Mexican experience provides at least a clear-cut answer, and it also provides elements to differentiate clearly between a liquidity crisis and a structural crisis. A demarcation on the matter is important as it would provide guidance, for IFIs and industrialised governments, on how to proceed when dealing with a crisis. While Bagehot provided lucid advice on what to do in each case², the case of Mexico provides guidelines, detailed in section 7.4, to know *what* type of crisis is a sovereign confronting.

If Mexico provides a case study to determine why a country stumbles into a debt crisis, it can also provide one on how to overcome it; what factors a sovereign borrower has to fulfil in order to regain the favour of the international capital markets. It may also be argued that there is no common ground, and that each crisis is different, and so must be the way to pull out from it. The most important lesson from Mexico in that regard, section 7.5, is that certainly circumstances are different, but all with a common framework.

With three crises in 20 years, Mexico also provides inklings on the usefulness of the debt indicators usually utilised, and also an appropriate field to search for any alternatives. The utility of the most popular debt indicators was questioned in Chapter 2. In section 7.6 it is shown that their utility is

¹ Nor it can be. As this chapter examines the lessons from Mexico, most notably the conclusions reached in Chapters 1 and 2 (that provided a theoretical framework for the research) and Chapter 4 (that studied the international capital markets) stand clearly apart, even if they provide elements that are utilised in this chapter.

² See Kindleberger (1989, 197-200).

certainly poor. Thus, other indicators are proposed in section 7.7. These alternative indicators work, at least for the case of Mexico, as they provide, in advance, a signal that an indebtedness policy may be heading for trouble. They are also fully consistent with the lesson outlined in section 7.3.

Section 7.8 looks at the negotiation framework that prevailed during the negotiations between Mexico and its commercial creditors, and its outcomes, particularly with the aim of verifying if that framework was similar to the one presented in Chapter 2. The following section looks at one of the negotiating strategies that was never adopted by Mexico, but at least temporarily embraced by other HICs: unilateral default. Looking at the Mexican case, in the light of the framework presented in Chapters 1 and 2, along with the history presented in Chapter 6, the merits of that strategy are analysed. Section 7.10 will analyse the role played by IFIs during the Mexican debt crises, presenting suggestions on what such institutions must do when confronting a crisis, and also how to try to prevent them. Finally, Section 7.10 presents a series of recommendations for an external indebtedness policy by a sovereign.

7.1. THE EXTERNAL INDEBTEDNESS PROCESS BY A SOVEREIGN: MYTHS AND FACTS

Several erroneous facts are an important part of the conventional wisdom on the subject of how the external indebtedness process of sovereign countries works, and they have permeated profoundly into the lay and even academic analysis. The previous chapters have studied in depth the case of Mexico as an external borrower and that of the international capital markets (particularly the Euromarkets) as the suppliers of loans, and have clearly shown not only how the process works, but also have unmasked those popular inaccuracies. In their place two facts stand out:

- Countries do not necessarily pay their debts.

It is a widespread belief that, as many individuals and private firms certainly do, countries are going to pay one day their debts, and even become net creditors vis-à-vis the rest of the world. That is, at an initial stage a country appeals to external debt as a support for its development process, and once “developed” it pays it back. That notion is smashed with just a casual glance at the (sometimes enormous) public debts owed by industrialised countries.³

Several academic analyses consider unthinkable the notion that a country will remain a net debtor at “the end of time”. However, for countries the point is that *there is not* an end of time in sight, and it is not something that worries creditors. Therefore, the transversality condition (see Chapter 1) can be violated, and a crucial alteration has to be made to equation (1.11)

$$(7.1) \quad D_t \Leftrightarrow \sum_{T=t+1}^{\infty} \frac{Q_t}{(1+r)^{T-t}}, \text{ where }^4$$

r is the international interest rate;

D is the external debt;

Q is a composite of those elements that, for lenders, represent the transferable wealth of the country.

As there is no “end of time” in sight, lenders, following Samuelson (1958), adopt the same attitude with debt owed by sovereign borrowers as people do with respect to money: they know it will be accepted, at face value, by other lenders. But even the same lender, as Rubio and Gil Díaz (1987) have pointed out, will be satisfied even if it has to hold the debt permanently –if it receives the interest payments uninterrupted.

That is, several reasons satisfactorily explain the relaxed attitude that lenders adopt towards sovereign borrowers, even with the full knowledge that they will always remain net debtors.

- Countries do not usually service their debts with their own resources.

It is also a common belief that sovereign borrowers service (or will do so in the future) their debts with their own resources –for example through a surplus in the fiscal and external accounts. This belief is a straight consequence of the aforementioned view that sovereigns cannot be permanent net debtors. If a country *eventually has* to liquidate its debts it obviously cannot do it with more debt, but it

³ For example, in 1997 the public debts of Belgium and Italy were equivalent to slightly more than 120% of their respective GDPs, and that of Greece was near to 110%.

⁴ This modification to equation (1.11) has no consequence on the previously outlined nature of Q .

has to be with its own resources. That belief causes that variables such as the exports or the GDP of the country are contrasted with its debt, and combined into widely used debt indicators (the case of Mexico, will be explored in section 7.6 below).

Precisely, because a country can remain as a net debtor, it is able to service (at least partially) its external (and internal) debt with more debt. That is common knowledge between lenders and borrowers, and bankers or bondholders are not worried by that fact. The case of Mexico is just one outstanding example of that process. The above facts, when taken into consideration instead of the beliefs that point in the opposite direction, radically transform the question of the debt payment capacity that a sovereign has, as will be detailed in the following section.

7.2. THE DEBT PAYMENT CAPACITY QUESTION

The debt payment capacity of a sovereign is at best a fuzzy region where no precise numbers exist and several factors are at work. Equation (7.1) and function (1.23), along with the case of Mexican experience, provide elements to clarify the question.

As detailed in Chapter 1, Q is the present value of the flows of resources that will be used to service the debt. For example, through a surplus in the current account, obtained through a trade account surplus; or also through a surplus in the capital account, obtained via FDI or external debt. And Q will be determined, among other matters, by the perceived fiscal health of the sovereign borrower. That is, remembering function 1.23 in Chapter 1

$$(1.23) \quad Q = f(E(Y, CAB, FB, NB))$$

where Y represents the expected GDP of the sovereign,
 CAB the current account balance,
 FB the fiscal balance, and
 NB the new borrowing to be obtained by the country

The inclusion of the variable NB fully explains how a country can successfully borrow in the capital markets while it has (and it is expected to continue having) fiscal and current account deficits (Mexico represents an outstanding example of this, particularly during the 1970s). The debt payment capacity will thus depend on the different elements that may modify the value of Q , as presented in the equation (1.23), along with the interest rate.

As usually a country will service (at least partially) its debt with more debt, that is why no precise boundaries or “ceilings” can be drawn, even less based on variables such as exports or GDP. The crucial issue for a sovereign is to keep the confidence of the capital markets, for old and new creditors to be willing to lend more. And that confidence, as the case of Mexico clearly attests, may be lost, and also recuperated, in a matter of weeks. Arguably the best example in that sense among the two liquidity crises is the one of 1976-77. In just a matter of weeks expectations were reversed: banks that flatly refused to lend in January 1977 were enthusiastically putting together syndicated loans for Mexican public borrowers in March. The difference was made by what was at the time a magic word: oil. The elusive value of Q cannot be measured, but it can be ascertained that it increased substantially.

The interest rate is, naturally, an important element in the debt payment capacity of the country. However, it can be argued that usually it has received more weight than the one it has in sovereign borrowing. Because of the peculiarity that countries may borrow to service their debts, an increase (fall) in the interest rate may not necessarily bring a reduction (increase) in the amount of debt borrowed; it will depend on the reaction of both sovereign and lenders. The skyrocketing of interest rates at the end of the 1970s and early 1980s (see Table C1) brought a huge increase in borrowing (and lending).

What breaks the rosy relationship between sovereign borrowers and lenders? Looking at Mexico, that is answered in the following section.

7.3. THE OUTBREAK OF DEBT CRISES

The differences between the three Mexican debt crises are huge, as is evident in the accounts offered in the previous Chapter. Do the three episodes have anything in common with respect to the beginning of the crises? The answer is a definite yes. As it is clear from the account presented in the previous chapters, and depicted in the debt/debt based indicators to be presented in Section 7.7, all the crises were preceded by a marked acceleration in the pace of indebtedness.

In the case of the first crisis, explosive indebtedness began in May 1973. It was briefly interrupted by the Herstatt collapse, only to resume and continue unabated until September 1976. During 1973-76 nominal external debt grew on average 40.3% every year. How was the country able to sustain that indebtedness rate? Arguably, the borrowing spree was explained by the 1973-74 oil shock (Mexico was then a marginal oil importer), or did not raise any worries because the debt stock was then relatively low. But not even those resources were enough to sustain the expansionary policies followed (see Chapter 3). The capital markets closed shortly after a balance of payments crisis erupted.

After years of an indebtedness policy that can be heeded as impressive, during 1977-80, the pace of indebtedness skyrocketed to 56.6% during 1981, particularly to support a futile attempt to avoid a maxi-devaluation of the peso, which took place in February 1982. Although the capital markets remained open for a few months, they eventually closed when the travails of the Mexican economy became quite apparent.

External indebtedness during 1994 was very different: there was a massive switch of debt, from *internal* (Cetes) to what was *de facto external* debt (dollar-denominated and mostly owed to foreign investors: Tesobonos). Considering the Tesobono debt, nominal external debt shot up by 42.7% during 1994. A few days after the peso had been devalued, it became widely known that almost \$30 billion in Tesobonos were due during 1995, bringing the closure of the capital markets for Mexico.

All three crises, thus, were rooted in a strong dependency of the economy on external savings.⁵ It can be argued that many sovereigns are dependent on debt. However, Mexico had become dependent on exceptional amounts of debt⁶, to sustain a fixed or quasi-fixed exchange rate (in the three cases), and enormous fiscal (in 1973-76 and 1981-82) and current account (in the three cases) deficits. The problem was not indebtedness, but the explosive need of it. Ironically enough, in all the three cases, foreign lenders closed their purses when they realised not only that Mexico was facing deep trouble, but also that it had milked the credit markets thoroughly. The abrupt skyrocketing of the indebtedness pace was not the result of a temporary shock, but of an economic policy or policies that had to be corrected. Although that is debatable in the case of the 1994 crisis, the fact remains that, as in 1976 and 1982, the course change startled lenders into closing their purses.

In the specific cases of the crises that begun in 1976 and 1982, there was not any reasonable justification for the explosive indebtedness. In 1994 the debt swapping might have been justified by political shocks. In the three cases, when the government gave up the fight to defend the peso, the

⁵ Also evident in the current account deficit during the period that preceded the three crises. See Figure 7.7 below.

devaluation was the trigger that dented the markets' confidence. The economic and financial turmoil that would follow in the three occasions started to change the attitude of the markets towards Mexico. In 1976 it was still able to clinch some loans before the markets closed.⁷ In 1982 Mexican public borrowers were able to continue accessing the markets for several months. In 1994 it was just a matter of days, after the markets learned that almost \$30 billion in short-term Tesobonos were outstanding.

Are there any factors that explain the different times that the markets took to react fully (i.e. reject all Mexican requests for loans)? A possibility is that in 1982 the Euromarkets had no experience with sizeable defaults (see Chapter 4), a situation that was naturally very different from the one that prevailed in 1994. Another, complementary, explanation was the information available (see Chapters 4 and 5): in 1982 not even the Mexican authorities had a precise notion of how much was owed and when it was due (with creditors even more in the dark). On the other hand, the amount of Tesobonos owed suddenly became a very much public figure. Therefore, a common factor that helped to spark the three crises was short-term debt, that put Mexico on the fringe of default in the first quarter of 1977, pushed it into a (relatively speaking) concerted default in August 1982⁸, and yet again had it on the brink of a moratorium during the first quarter of 1995. The combination of an increasing dependence on external savings, shattered confidence, and a high proportion of short-term debt (see Figure 7.6 below) would prove fatal. Among those factors, arguably the increasing and unsustainable reliance on external debt was the gravest. Because of it, when the markets closed a debt crisis was just a few days (1994) or at most weeks (1976, 1982) away.

It is important to emphasise that the main culprit in the loss of the creditworthiness of Mexico were not interest rates (not even in 1982), but domestic policies that deteriorated Q (by affecting FB and CAB) and, even more important, caused an explosive increase in the pace of external indebtedness that deteriorated Q even further by affecting NB –creditors realised that Mexico had entered an explosive cycle of indebtedness and that, following Samuelson, sooner rather than later the debt would not be passed, at least at face value, to another generation of lenders.

⁶ With a yearly growth rate 40% external debt would *double* in nominal terms every two years. In the three cases the rate of growth was above that figure the year before the crisis started.

⁷ A possible explanation was that those loans had already been agreed upon and too advanced to call-off (see Chapter 6).

⁸ It is important to remember that the government requested from its creditors a 90-day moratorium on amortisation payments, but continued to pay interests punctually.

7.4. LIQUIDITY AND STRUCTURAL DEBT CRISES

The so-called liquidity/structural debt crisis dichotomy was analysed in Chapter 2. A division line that can be drawn (more or less) clearly for a private firm in financial trouble (because its net present value can be estimated with reasonable precision) is in the best of cases blurred when dealing with a sovereign.

The first, although obviously ex-post, lesson that the Mexican debt crises offers on the matter is that a key variable to determine what kind of crisis is the country facing is the time it takes to overcome it. Of the three crises, it can be ascertained that the 1976-77 and 1994-95 crisis were liquidity ones; between the country being ejected from the capital markets and its comeback not more than a few months lapsed (six in the former, five in the latter).⁹ On the other hand, in the case of the crisis that begun in 1982, exclusion would last almost seven years. Nobody would categorise it as a liquidity one.

Thus, a simple way to differentiate between liquidity and structural crises is that, in the latter case, in its *present* conditions a sovereign is plainly unable to surpass that crisis quickly; the necessary adjustment is unattainable in the short term (i.e. within a year). That is, the explosive pace of indebtedness that preceded the crisis would continue unabated if the country could somehow keep its creditworthiness, as there is a gap that the borrower is unable to close speedily. Remembering the three basic equations presented by Fishlow (see equations 1.1 to 1.3), there are three potential gaps that may explain the need for external indebtedness: that between savings and investment, exports and imports, and/or public revenues and expenditures. Another way to know that a sovereign is facing a structural crisis is when, *even if debt service obligations vanished completely*, the country would still be immersed in a crisis (something that would obviously not be the case in a liquidity debt crisis).

In the case of Mexico both the trade and the current account swung quickly from enormous deficits into sizeable surpluses between 1981 and 1983 (see Tables A13 and A14). However, the difficulty was the fiscal correction, not achieved until 1988 (see Chapter 3 and Table A3). The crucial variable to explain why Mexico was unable to regain its status as debtor was the fiscal one. Arguably that was also the case of other HICs: their trade accounts also swung into surpluses, and so remained for several years, but they still failed to regain their access to credit markets.

Does this explain the length of the 1980s international debt crisis? To a great extent, but only partially. It is important to look also at the other two variables in equation 7.1. Up to 1982 Mexico had virtually *carte blanche* in the international capital markets, a position that was fully exploited during 1981 and the first months of 1982 (see Chapters 4 and 5). Abusing of the imperfections of the market, the government over-stretched in its borrowing, and when the banks realised what was happening it was too late. The pace of indebtedness was not sustainable and the level of acquired debt high. It was thus necessary to reduce D , increase Q , or reduce r . But during the 1980s nominal and real international interest rates would remain extremely high in real terms (see Table C1). At the same time (see Chapter 3), shocks such as the 1985 earthquake and the 1986 plunge in oil prices would smash the correction managed in the fiscal adjustment. But those two blows were just the most outstanding in a period of

time where the terms of trade of the country experienced a rapid deterioration that had no historical precedent (see Tables A11 and A12). It was not until 1988 that at least a facade of fiscal control was restored, that had clearly consolidated by 1989 (see Chapter 3). That fiscal gap made the difference between a liquidity and a structural crisis.

The Mexican experience clearly shows that the structural crisis of a sovereign borrower is very different from the solvency crisis faced by a private business. There is no way for creditors to allot the spoils of what is available among them, first of all because there is no clear seniority between the different kind of creditors (where the population of the country should be included). The nearest comparison between a private and a sovereign borrower in distress would be to argue that the latter could enter (voluntarily) a sort of U.S. Chapter 11 process. That is, a process where the borrower is protected from its creditors while it puts its finances in order.¹⁰ If the country has the willingness to do so, the IMF can provide the imprimatur for a stabilisation programme, thus providing creditors with a possibility of at least recuperating a fraction of their loans, thus ensuring their assent to the roll-over of loans due, reschedule, and/or provide “involuntary” loans. The boats sent by the government of the creditors in the past (for example to control a key port and with it important tax revenues) are replaced by a different kind of guarantee, that equally ensures that some money will be recuperated. And to help in that adjustment process, creditors are (in extreme) willing to lend more -but with the guarantee implied by a Fund agreement. While creditors may be in the dark about the future of the debtor, at least a Letter of Intent subscribed with the IMF should shed some light on it. It may prove to creditors to buy time in a structural crisis, moreover when they are receiving a net transfer of resources from the debtor. A structural crisis in the case of a sovereign will be by definition temporary, considering that countries (at least relatively speaking) last forever. Not only their life span is generally considerably longer than that of a generation, but also in many occasions that country's debts will be absorbed by the one that takes its place.¹¹

Looking at the Mexican experience (and that of other countries is similar) it can be ascertained that the basic difference between a liquidity and a structural crisis is that of the adjustment needed to recuperate a creditworthy status (thus the time required to achieve that adjustment). The three modern debt crises of Mexico clearly show that the difference between the two types of crises is clear. A crucial variable, the Mexican case indicates, is the fiscal balance; a turnaround in the external accounts is not enough to allow the sovereign to return to the international capital markets. However, a radical change in Q can also be managed through what would seem as sheer luck. In that sense, also Mexico has lessons to show, presented in the following section.

⁹ As pointed out in Chapter 6, the November 1976 \$800 million syndicated loan received by Mexico is not being taken into account, considering that it was a concerted effort by lenders (defensive lending, just like the 1980s “involuntary” loans) to help the country to avoid default.

¹⁰ A key difference with a private business, however, is that creditors have to give their assent to this, agreeing to reschedule or, as happened with Mexico in August 1982, agreeing to roll-over all credits due during a certain period of time (see Chapter 6).

7.5. LIFE AFTER DEBT

An accompanying fact of the three Mexican debt crises is that eventually creditworthiness was regained. An acerbic observer would argue that the country has been able to restore its standing merely to lose it again. However, the fact remains that while Mexico is a proof of how a country can face recurrent problems with its external debt, it also attests how these predicaments can be (even if it is just temporarily) left behind.

What factors lie behind the Mexican comebacks? What lessons can be derived? From the three crises described in Chapter 6, it can be affirmed that *domestic* and *external* factors are at play. *Both* are fundamental to explain why the country was able to emerge from a debt crisis. The domestic factor signals the correction of the fiscal situation. It shows to potential lenders that the borrowing needs of the country are not enormous anymore. However, as it has been documented profusely, creditors move in herds. Even if *one* perceives that the sovereign has recuperated fiscal control, it needs that *many* share the same view, and therefore are willing to lend. Thus, an *external* signal is crucial, that will move many creditors to lend. Although summarised in Table 7.1, it is worth to analyse briefly both factors at play in each one of the crises.

- The 1976-77 Crisis

The massive oil wealth proved to be the most important factor. Real oil prices were high, and expected to remain high for many years. Besides, a fiscal correction had started. The fiscal deficit was to fall from 9.1% of GDP in 1976 to 6.1% the following year. Although far from an orthodox number, it was not alarming from the perspective in vogue at the time. Moreover, the government had signed a three-year programme with the IMF. That covenant signalled that the government intended to put its fiscal situation in order. The letter from De Groyler and McNaughton certifying that Mexico had much bigger oil deposits than previously thought was flashed around to bankers. The consideration of the oil wealth as an internal trigger can be debated. It can also be classified as external, as it was that certification from a recognised external auditor that did the trick. While eventually creditors would have been convinced, the government was in a hurry to do it, and that audit made a huge difference. Of the two factors, undoubtedly the internal one (the oil wealth) was the most important to the eyes of potential creditors. After the Pemex loan proved to be a huge success, banks had no hesitation to queue up enthusiastically to syndicate loans for Mexico, as was proved by the loan that followed (for Nafinsa): it had to be more than doubled in its amount as it was heavily oversubscribed (see Chapters 5 and 6).

- The 1982-90 Crisis

As detailed in Chapter 3, the success in the fiscal adjustment begun under the *Pacto* framework was evident by April 1989, when a Letter of Intent was signed with the IMF and when a few weeks later negotiations were begun with the creditor banks' advisory committee under the Brady guidelines. The Brady Plan had signalled that the United States was ready to support the notion of debt and debt service reduction. The IMF's imprimatur was certainly important, moreover considering that it also sanctioned the need to achieve a debt reduction agreement, and it provided resources to finance debt reduction

¹¹ For example, the debt of the defunct Soviet Union was distributed among several of the Republics that emerged from its collapse.

operations. However, the fiscal adjustment was something already achieved. That the internal factor was, again, the overriding factor is evident in the fact that the government was able to successfully issue a bond in the Euromarkets in June 1989 (even if it was for a small amount and offering an important discount), a few weeks *before* an agreement with the banks was reached. All the negotiations conducted under the Brady umbrella with the IMF, World Bank, Paris Club, Japan, and the commercial banks provided the external trigger, confirmed by that Eurobond issue. The internal trigger was already in place. The debt reduction achieved was relatively small (see Chapter 6), and would have been clearly insufficient had public finances continued in disarray. That is the main reason why the MYRAS negotiated in 1982-83, 1984, and 1986-87 were not successful: the fiscal situation had not been corrected. To that it must be added that debt was merely piled up and moved to a relatively near future. And that, combined with historically high real interest rates and the collapse in the Mexican terms of trade, fully explains why that crisis took more than seven years to be surpassed.

Somewhat ironically, the central plank of the Brady Plan, that HICs needed debt and debt service reduction in order to regain their creditworthiness was correct. However, it was not because, as it assumed, those HICs were suffering from a debt overhang, but because the reduction proposed by Brady would provide an external trigger that would complement the internal adjustment undertaken by the country. It may be argued that another external trigger could have been found instead of debt reduction (by the late 1980s proposed as *the* solution to the international debt crisis). Although correct in theory, an alternative to debt reduction as external trigger would be difficult to find after HICs had been suffering from a debt crisis for such a long time.

- The 1994-95 Crisis

The government had continued implementing policies that had radically transformed the Mexican economy, and public finances were healthy. A stabilisation programme was announced in January 1995, supported by the IMF. However, the massive Tesobono debt and its short-term nature (\$30 billion, with virtually the whole lot due during 1995) was seen rightly as a formidable hurdle that the government would be unable to overcome on its own. The massive \$50 billion support package, mainly from the U.S. and the IMF, announced in February, were crucial to reduce that apprehension. The stabilisation measures were reinforced in March. Both triggers were undoubtedly important, but clearly the external one was the overriding factor that allowed the government to be able to return in May to the capital markets. Sizeable, medium-term lending, however, would be available until the end of the year.

The fiscal correction shows to creditors that the country is again able to stand on its own feet, without the recourse to external debt, or at least without the need of huge inflows of external savings. In the three crises the domestic factor was crucial to explain the regaining of creditworthiness, although the external trigger was also important, as it signalled to creditors that they would move forward with their loans, as others would also come along with them and, as important, follow them. The virtuous cycle a-la-Samuelson, with overlapping generations of creditors lending to the sovereign (see Chapter 1 for details), and its government financing debt service with additional debts, starts again.

Table 7.1. The Mexican Debt Crises: Factors in their Beginning and Surpassing

Type	Beginning ^a	Trigger(s)	End ^b	Domestic Trigger(s) ^c	External Triggers
Liquidity	31.08.1976 to 09.1976 ^d	Abrupt devaluation of the peso in August 1976, followed by economic turmoil.	02.1977 to 23.03.1977 ^g	- Enormous oil wealth unveiled by the government in early 1977; - A new administration takes office in December 1976.	- Letter of intent with the IMF signed in November 1976; - Very successful syndicated loan in March 1977.
Solvency	30.06.1982 to 20.08.1982 ^e	- Abrupt devaluations of the peso in February and August, both followed by economic turmoil; - Markets close after difficult syndication of jumbo loan (June), and a hefty-priced bond (July); - De facto moratorium announced by the government (20 August).	23.06.1989 to 04.02.1990 ^h	- Profound fiscal adjustment and structural changes implemented since late 1982; - Successful stabilisation programme implemented since December 1987, with clear results by early 1989; - Letter of intent with the IMF signed in April 1989.	- Under the aegis of the Brady Plan, negotiations with the banks aiming for debt reduction since April 1989. Agreement on principle in July; - Bond issue in June 1989; the first one since July 1982. - Final agreement with commercial banks signed in February 1990.
Liquidity	19.12.1994 to 28.12.1994 ^f	- Abrupt devaluation of the peso; - Discovery by the markets that almost \$30 billion in dollar-denominated debt was due during 1995.	04.05.1995 to 02.11.1995 ⁱ	- Public finances in good shape; - Profound structural change for several years; - Letter of intent with the IMF signed in January 1995; - Reinforced economic adjustment programme announced in March.	- International support package for more than \$50 billion, headed by the U.S. government and the IMF, announced on January 1995; - Several bond issues since May.

a. Marking the change in sentiment in the markets towards Mexico, with the closure of the international capital markets as part of that turn.

b. Marking the change in sentiment in the markets towards Mexico, with the reopening of the international capital markets as part of that turn.

c. While the signing of a Letter of Intent with the IMF -that would happen in the three crises- is naturally an event with external implications (because Mexico would receive external financial support) it is also a commitment of the government to follow a set of economic policies. That is why it is included as an internal trigger.

d. The first date marks when the peso was devalued abruptly, the second when the country was jettisoned from the capital markets.

e. The first date marks the last syndicated loan obtained in the capital markets, the second when a *de facto* moratorium was declared, with the last bond issue in the capital markets in-between.

f. The first date marks when the peso was devalued abruptly, the second when the amount of the Tesobono debt was known publicly, and the country was jettisoned from the capital markets.

g. The first date marks when the discovery of massive oil deposits were made public, the second the date Mexico returned to the capital markets.

h. The first date marks when Mexico returned to the capital markets, the second the signing of the final agreement with the commercial banks under the Brady guidelines.

i. The first date marks when Mexico returned to the capital markets, the second the first time a sizeable credit with a five-year maturity was obtained.

Sources: Constructed with information from Chapters 5 and 6.

7.6. USEFULNESS OF TRADITIONAL INDEBTEDNESS INDICATORS

Debt indicators have been for a long time a popular way to measure the state of indebtedness of a sovereign borrower; to determine if a sovereign is or will be capable of dealing without problems with the amount of debt it owes and the debt service it implies. Or rather if, on the contrary, that sovereign has a problem of “over-indebtedness”.

In its modern history Mexico re-gained access to the international capital markets -after a rather long interregnum- in 1963 and, in the following 35 years it was to be jettisoned from, and regained access to, them on three occasions. Do the Mexican indebtedness indicators mirror that story? At least a look at the indicators that are popularly quoted suggests that the straightforward answer is no.

- Debt/GDP (Figure 7.1)

A problem with this indicator -as detailed in Chapter 2- is that the external debt of the country is denominated in hard currencies (mainly the U.S. dollar), while the Mexican GDP is denominated in pesos. The indicator mirrored the significant swings experienced by the real exchange rate, rendering it unusable. Moreover, in many occasions external debt was used to sustain an increasingly unrealistic exchange rate. While the peso appreciated in real terms, GDP in dollars increased its value and the increase in the debt stock was not reflected in the indicator.

This is quite evident in Figure 7.1: the explosive indebtedness registered in 1973-75 brought certainly an increase in the indicator, but far from spectacular and one that did not reflect the accumulation of debt, while during 1981 the indicator increased also slightly (breaking a downward trend), to reach a similar value to the one registered in 1979. This is not surprising when it is considered that GDP (in dollars) grew by 25.5 percent on average during 1973-75 and 28.3 percent in 1981. The indicator certainly explodes in 1976, 1982, and 1994 (the years each of the debt crises begun), but as a result of the balance of payments' crisis and the huge devaluations that took place then. As the GDP in dollars shrunk accordingly, the indicator skyrocketed, as it duly did when the peso was considerably depreciated to partially cushion the 1986 oil shock. Arguably, the fact that the indicator increases markedly when the country faces a debt crisis (though as a result of the devaluation of the currency, not of the increase in debt) explains the enthusiasm that prevails for it.

With overvalued exchange rates being a common feature in many LDCs, particularly in Latin America (eventually corrected by macro-devaluations), the debt/GDP is a practically useless indicator. Even more so if the intention is to try to foresee if a country is going to face trouble with its indebtedness policy. To that problem it must be added what has already been mentioned in Chapter 2: the crux of any debt profile is the payments' horizon that the debtor is facing (scheduled interest payments plus amortisations). An enormous debt would imply no burden for a country if the interest rate on it was very small or zero and if the payments' horizon was extended over a long period of time, or would be extended (by refinancing the debt) without difficulty.

- Debt/Exports (Figure 7.2)

This indicator at least has no implicit problems of currency conversion -with both parts being denominated in hard currencies.¹² However, at least in the case of Mexico, there is no clear relationship between its value and any indebtedness problems that the country may be experiencing. This ratio clearly was increasing during the second half of the 1960s and the beginning of the 1970s (with the exception of 1972), and it had an explosive growth in 1975. Arguably it would have been useful to predict the debt crisis that would strike in 1976-77. However, this indicator would reach its peak precisely in 1976, and start a rapid fall as oil exports increased markedly. While the downward trend was reversed because of the huge indebtedness of 1981, oil exports also masked any problems. In fact, just looking at Figure 7.2, the 1982 crisis is not at all discernible, with 1982-85 presenting a debt/exports ratio drifting around the same level it presented in 1970. While there was a clear jump in 1986-87 because of the increase in external debt and the collapse of oil exports, the trade openness and export-led strategy adopted since the mid-1980s (see Chapter 3) took the ratio on a downward trend. The 1994 indebtedness broke that trend, but the jump in the indicator merely took it to the level it had at the beginning of the 1970s -and that not considering the maquila exports; if maquila exports are taken into account, then at the end of 1994 the ratio was standing just below the level it presented in 1965 -hardly a hair-raising number that would push anyone to say that the country was experiencing a debt crisis, as indeed was the case. At the end of 1997 the ratio was near to the 80% mark for the first time since the late 1950s or early 1960s. The crucial difference was that then the relatively low level of the external debt explained that level, whereas in the late 1990s it was the result of booming exports.

With a strong export sector and an accordingly low debt-exports ratio, why a country would experience a debt crisis? Because Mexico, as many other LDCs, does not service its external debt with its exports (i.e. a surplus in the trade account) but, at least partially, with more debt (i.e. a surplus in the capital account). That is the main reason why the debt/exports ratio is also ineffective to determine if a country may or may not face any problems with its external debt.

- Debt Interest Payments/Exports (Figure 7.3)

This is better indicator than the previous one (see Chapter 2). It certainly shoots up importantly in 1973-75, because of stagnated exports and explosive indebtedness. When massive oil discoveries are transformed into massive exports it declines, even during 1981. A crisis is not at all evident in 1982: that year the ratio is at an inferior level to the one observed in 1980, when Mexico was at the peak of its creditworthiness (see Table 5.6). Not considering maquila exports, there is an important jump in 1986-87, but from that apex the ride is bumpy but definitely downwards. Even the 1994 massive debt swapping took the ratio to levels inferior to those observed during the late 1970s. If maquila exports are taken into account, in 1994 its level is only comparable to the historical-lows registered at the beginning of the 1990s, with further record-lows being registered in 1996 and 1997.

¹² Although debt and exports may be denominated in several internationally-accepted currencies, at least in the case of Mexico both are mostly denominated in U.S. dollars. While the variation of the exchange rate between, for example, the dollar and the French franc may certainly impact both statistics, in the particular case of Mexico that effect can be safely considered as minor.

Yet again, the oil exports of the late 1970s and early 1980s and the manufacturing exports of the late 1980s and 1990s were so massive that they masked even huge increases in the interest bill. To that it must be added the plunge in interest rates that started in the last quarter 1990 (in the case of LIBOR) and the first quarter of 1991 (for the U.S. Prime rate, for both see Table C1). For whatever reason, the interests/exports indicator also failed in its aim to show the condition of indebtedness that the Mexican economy faced.

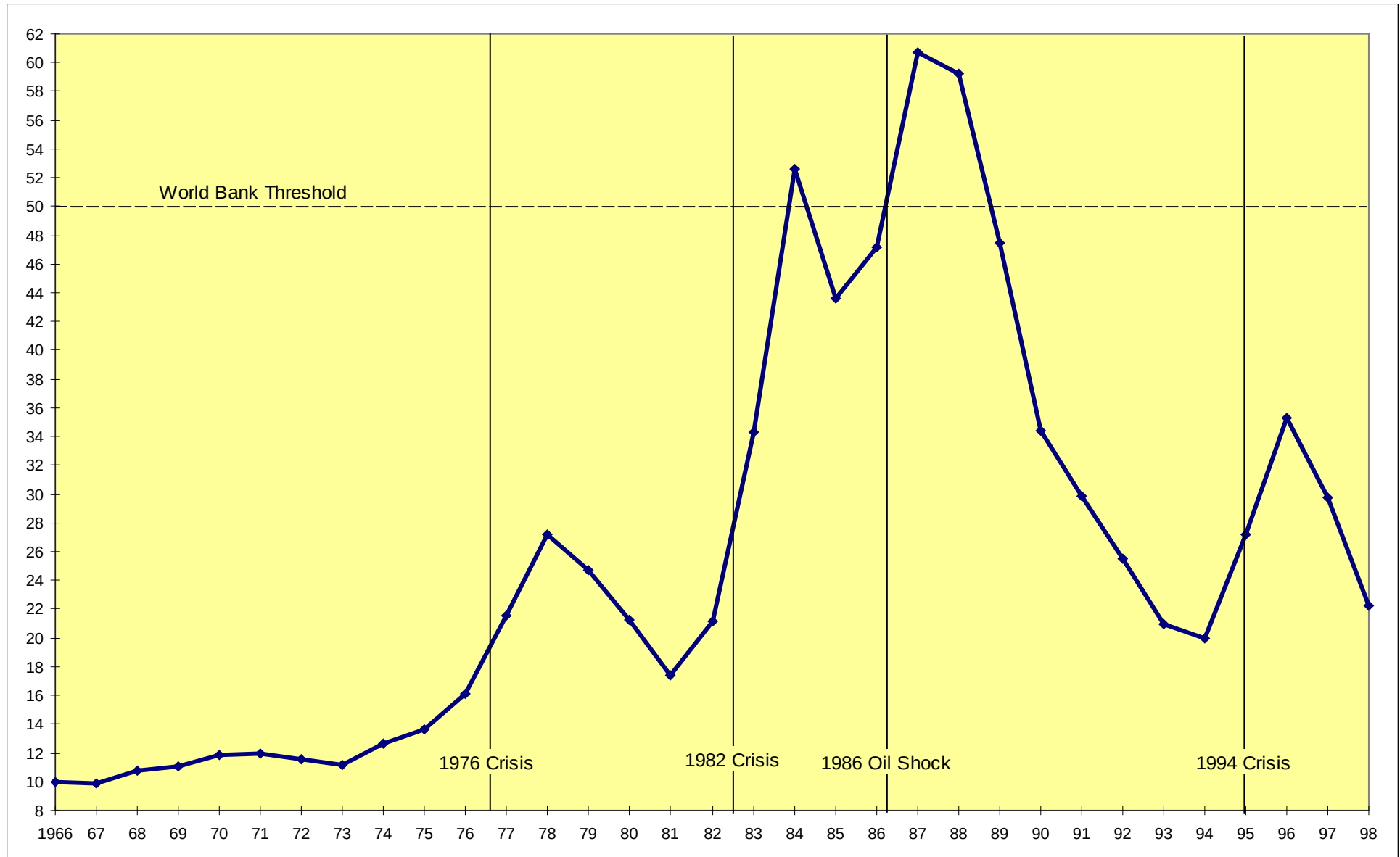
- Debt Service/Exports (Figure 7.4)

While service/exports should in theory be a much better indicator than interest/exports (as it includes the amortisation of debt) in reality it is even less useful, because service includes all the debt that is refinanced, that is, debt liquidated with additional debt (usually with better conditions, such as maturity and cost). While the increase in the stock of debt is zero, the service figure is inflated. This is evident also in the case of Mexico, where the refinancing exercises conducted during 1978-80 (described in Chapter 5) and 1995 (when practically all the Tesobono debt was liquidated, see Chapter 6) push the indicator markedly upwards. While the latter refinancing was the result of a crisis, the former was aimed to attain a better maturity profile for the debt -and just looking Figure 7.4 it is impossible to tell the difference. That is, the abyss between a sovereign that has such a superb creditworthiness that it is able to favourably refinance its debt and one in deep trouble, paying the debt of those that are panicking and want out with emergency resources obtained, for example, from the IMF.

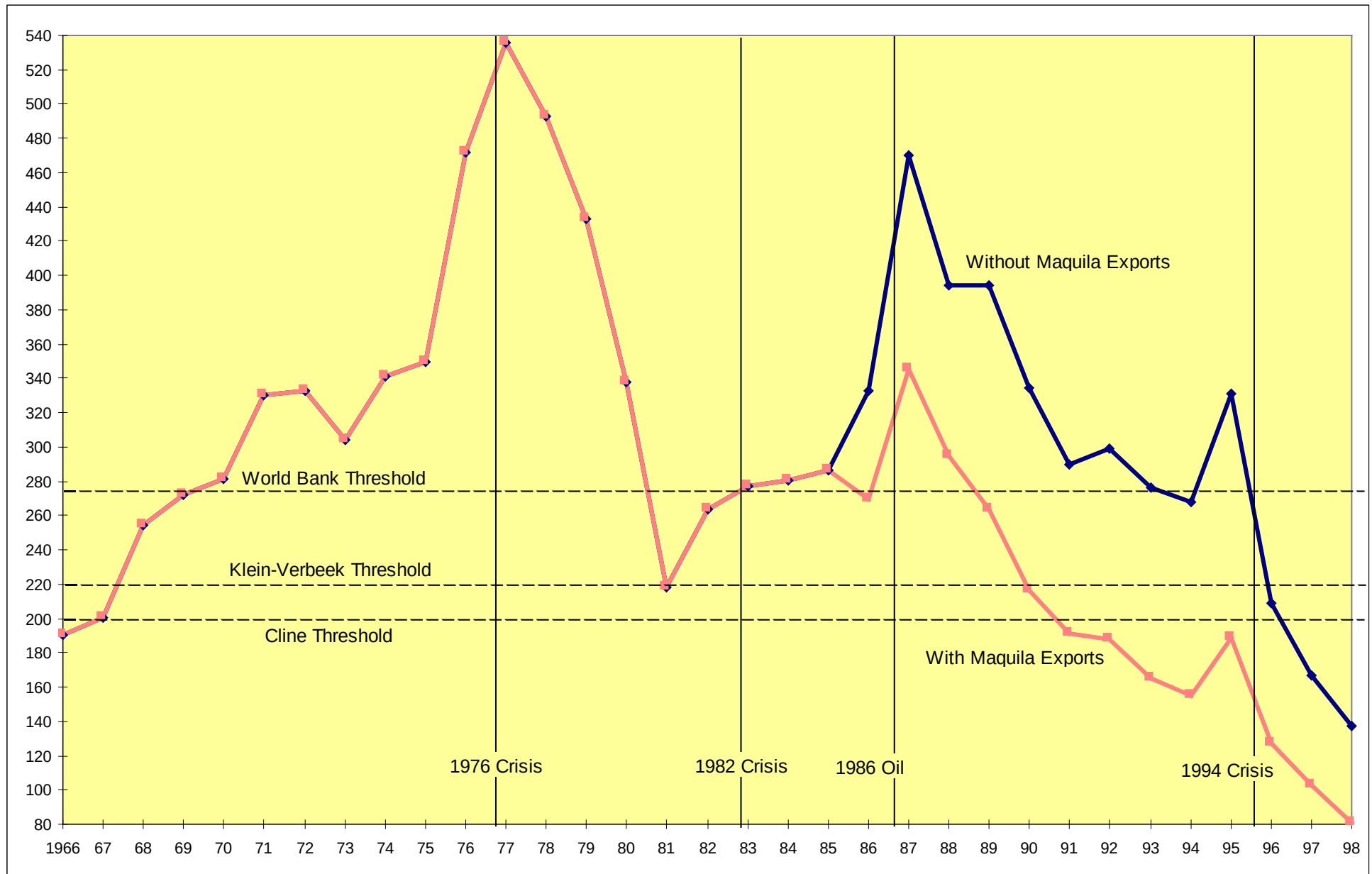
Critical levels have been presented in several studies -particularly in those developed by the World Bank- in an attempt to draw a line between the “moderately indebted” and the “severely indebted”. The World Bank¹³ has presented those thresholds for the four indicators just described, while the analysis by Klein and Verbeek (1994) includes three, and that of Cline (1995) mentions two. A clear sign of how difficult it is to draw a clear line is that, in the one indicator where the three coincide -that of debt/exports-, the three present different thresholds (see Table 2.1).

Figures 7.1 to 7.4 include those thresholds. Even a casual look is enough to establish the uselessness of such critical levels, at least in the case of Mexico. For example, with the exception of three years in the 1980s, the country has always been *below* the critical level in the Debt/GNP ratio while, with the exception of one year at the beginning of the 1990s, it has always been *above* the critical level in the service/exports ratio, with the indicator in 1997 just above the threshold. The World Bank is cautious in its approach, considering that only a country that is above in at least three out of the four critical levels is severely indebted. Looking at Table 7.2 it may be considered this approach to be successful: in the periods previous to debt crisis explosions, Mexico is certainly above the critical levels in three out of the four thresholds -in the case of 1994 if maquiladora exports are not taken into account. However, if those exports are considered, only two of the four thresholds were trespassed.

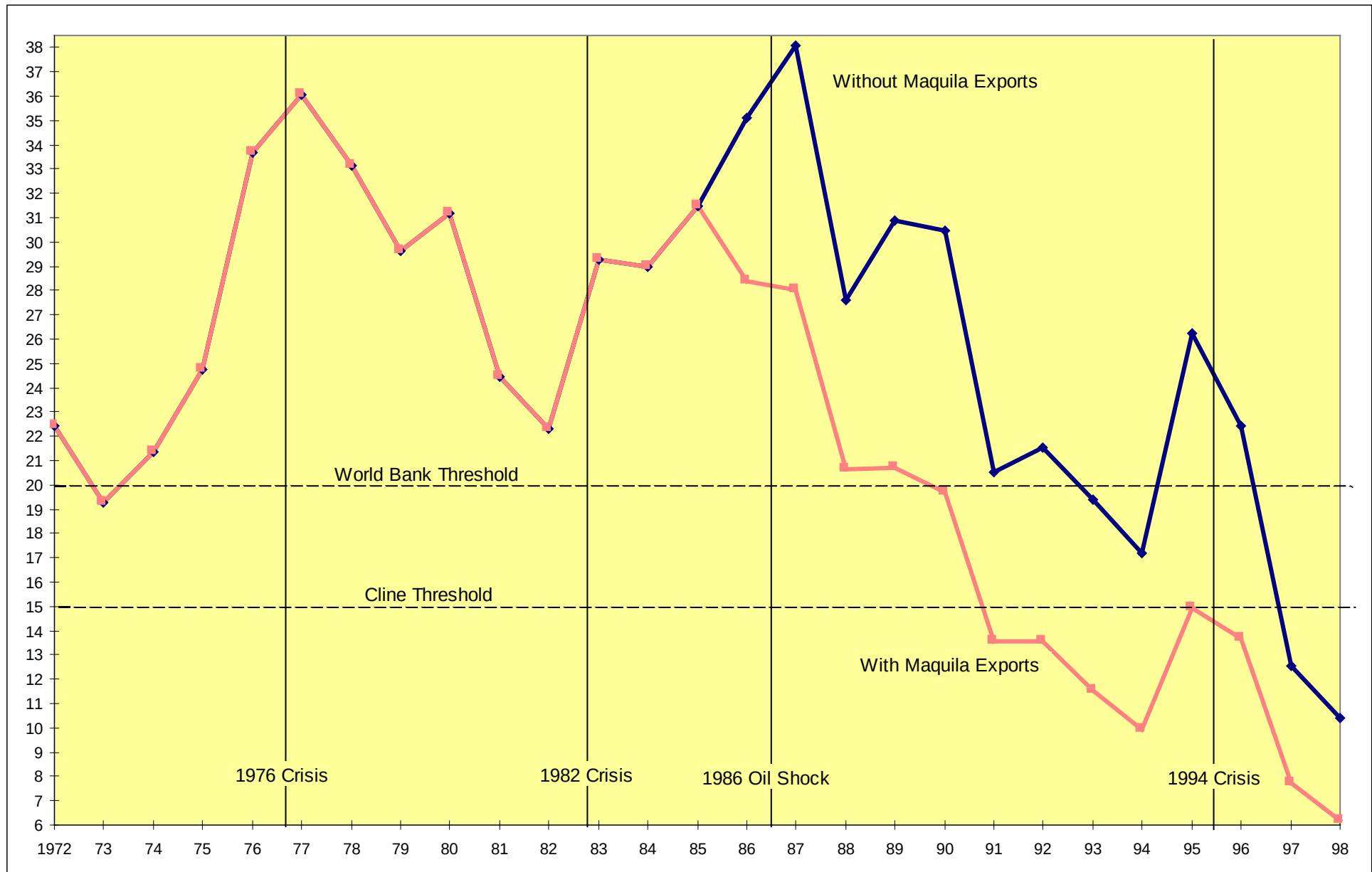
¹³ Included in several issues of its annual publication *World Debt Tables*.

Figure 7.1. Debt/GDP, 1965-97
(percentages)

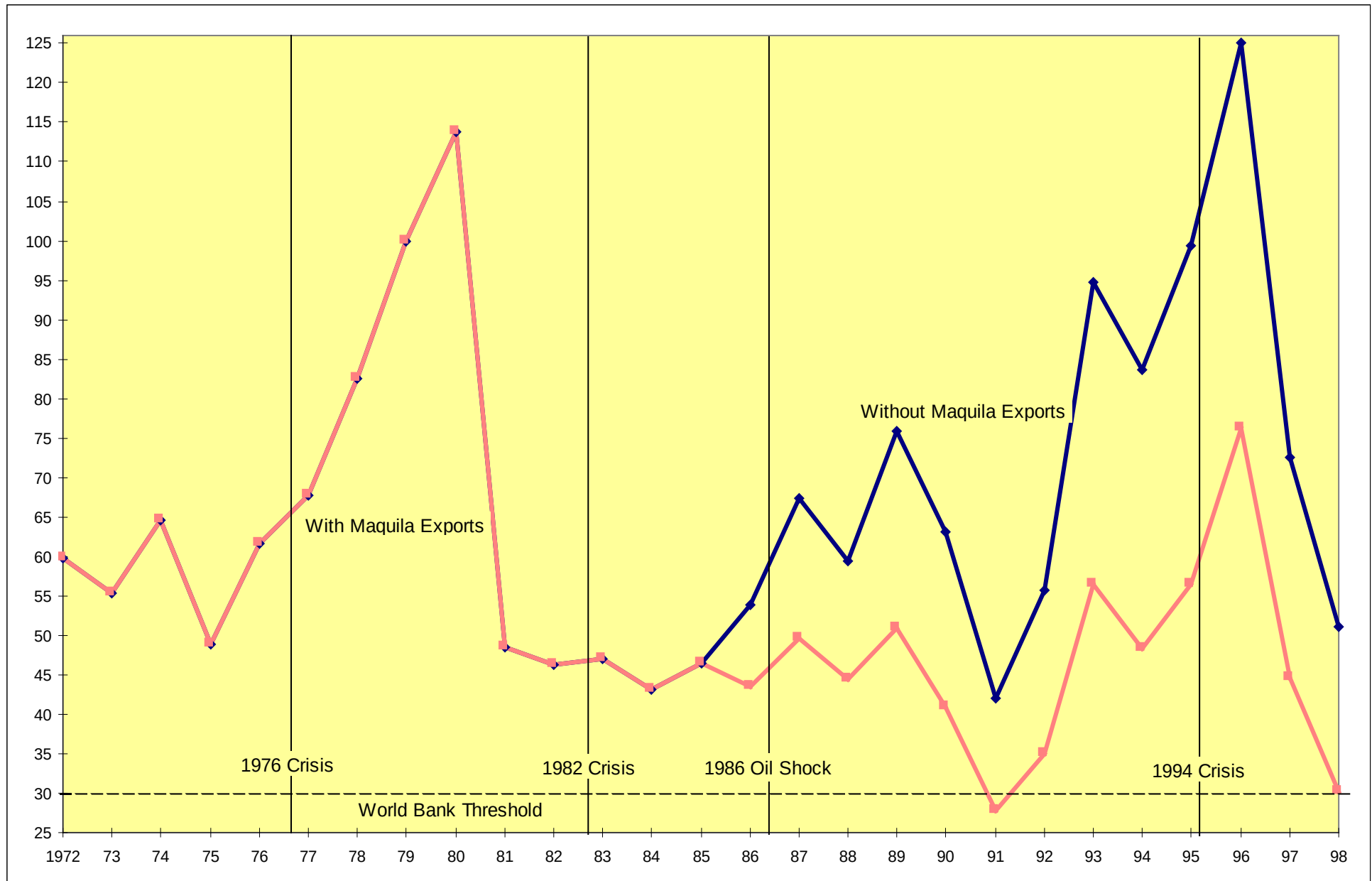
Source: Elaborated with data from Table B9.

Figure 7.2. Debt/Exports, 1965-97
(percentages)

Source: Elaborated with data from Table B9.

Figure 7.3. Debt Interest Payments/Exports, 1971-1997
(percentages)

Source: Elaborated with data from Table B9.

Figure 7.4. Debt Service/Exports, 1971-1997
(percentages)

Source: Elaborated with data from Table B9.

Table 7.2. Mexican External Debt Burden Indicators Contrasted to Thresholds for a "Severely Indebted" Country

	World Bank ^a	Klein-Verbeek	Cline	Mexico 1975-76	Mexico 1981-82	Mexico 1994 ^b
Debt/GNP	50%+	80%+	- ^c	16.1% 21.6%	21.2% 34.4%	27.2%
Debt/Exports	275%+	220%+	200%+	471.8% 536.2%	263.5% 277.3%	331.2% (188.3%)
Interest/Exports	20%+	-	15%+	33.7% 36.1%	22.3% 29.3%	26.3% (14.9%)
Service/Exports	30%+	-	-	61.6% 67.7%	46.2% 47.0%	99.4% (56.5%)

a. Defined as countries in which values for three of the four indicators are above the critical levels.

b. With the figures for indicators considering the maquiladora exports between brackets.

c. Not included in the study.

Source: Constructed with data from Tables 2.1 and B9.

However, that success is annulled when it is considered that, even applying strictly the World Bank criteria, during the quarter of a century that spanned from 1971 to 1997, Mexico was a severely indebted country in the following periods: 1971, 1973-79, and 1982-91 (the last not counting the maquila exports, see Table 7.3). That is, even before the explosive indebtedness of the 1970s had begun, or after the debt reduction agreement of 1990, and during periods (such as 1971-76 and 1978-79) where the country standing in the international capital markets was high, and its requests for loans were enthusiastically met.

Table 7.3. Periods in Which Mexico would Classify as a Severely Indebted Country according to the World Bank Criteria during the 1971-97 period

	Debt/GNP	Debt/Exports	Interest/Exports	Service/Exports
Threshold	50%+	275%+	20%+	30%+
Without Maquila	1984 1987-88	1971-79 1982-92	1971, 1973-91 1994-95	1971-96
With Maquila	1984 1987-88	1986-87	1985-88	1971-89 1991-96

Source: Constructed with data from Tables 2.1 and B9.

Other indicators -albeit not so popular or quoted as the ones just presented- are also looked at when trying to determine the degree of indebtedness of a country. At least two of them indeed offer at least some clear signals that a sovereign borrower may be facing trouble.

- Interest Payments/Reserves (Figure 7.5)

The rationale behind this ratio is that any important increase in it will signal trouble, as the reserves at the central bank may prove insufficient to cover the interest bill. That is, this indicator suffers from the same problem that any other ratio that includes exports: to assume that reserves (or exports) are used to service the debt. In fact, debt is many times used to replenish those reserves (for example used to defend a certain exchange rate policy). Another problem is that key information (precisely the amount of reserves at the central bank) is not commonly available on a frequent basis in many LDCs. In the case of Mexico, for example, before 1995 the precise and up-to-date amount of reserves was made public only *twice* per year.¹⁴ With timely information, this indicator would provide an important signal of impending problems, as the collapse in reserves would reflect a losing battle against those betting in favour of a devaluation -as in 1982 and 1994 (but also was the case in 1976, something not reflected in Figure 7.5). But that was not the case.¹⁵

- Short-term debt/Debt (Figure 7.6)

A country generally faces a debt crisis when it is unable to fulfil its scheduled debt service and it has no option but default. And it is usually unable to fulfil its compromises because it has been cut-off from its habitual access to the capital markets. The accumulation of short-term debt may indicate desperation from a country that; unable to attract medium- or long-term funds, has to appeal to short-term ones. Moreover, if a borrower has piled up an important amount of short-term debt, then it is quite vulnerable to any reduction in external inflows. The case of Mexico clearly shows this. While short-term debt was very high during the decade that preceded the 1976-77 crisis, and it may have been then a “normal” feature of the indebtedness policy at the time, the leaps in 1981 and 1994 are clearly the result of an abrupt switch to short-term borrowing, because there was no other option (see Chapter 5), and a clear sign of problems.¹⁶

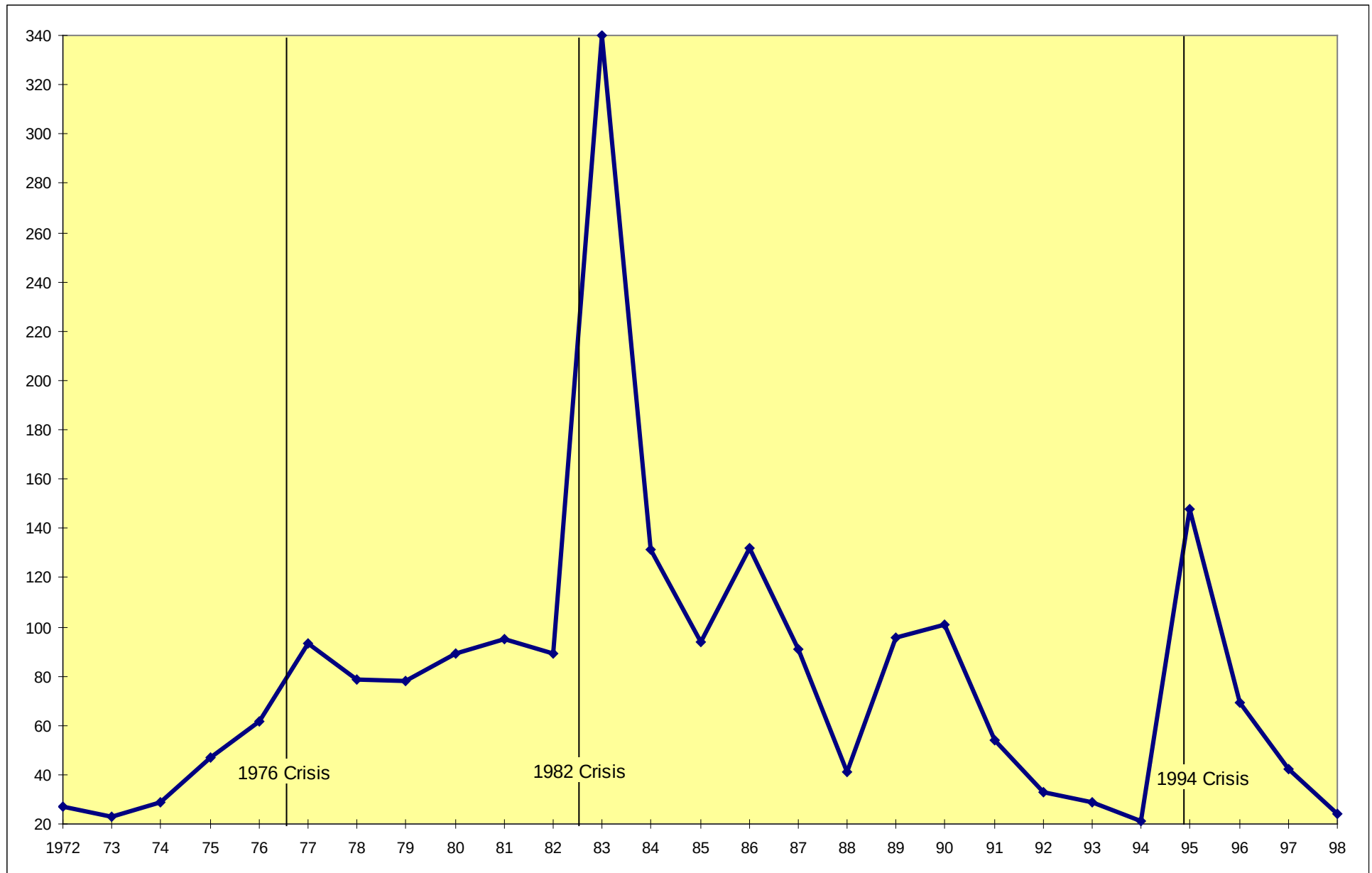
- Current Account Deficit/GDP (Figure 7.7)

A huge current account deficit reflects enormous needs of external savings (by the public and/or private sectors). Explosive current account deficits have preceded in the Mexican case both balance of payments and debt crises.

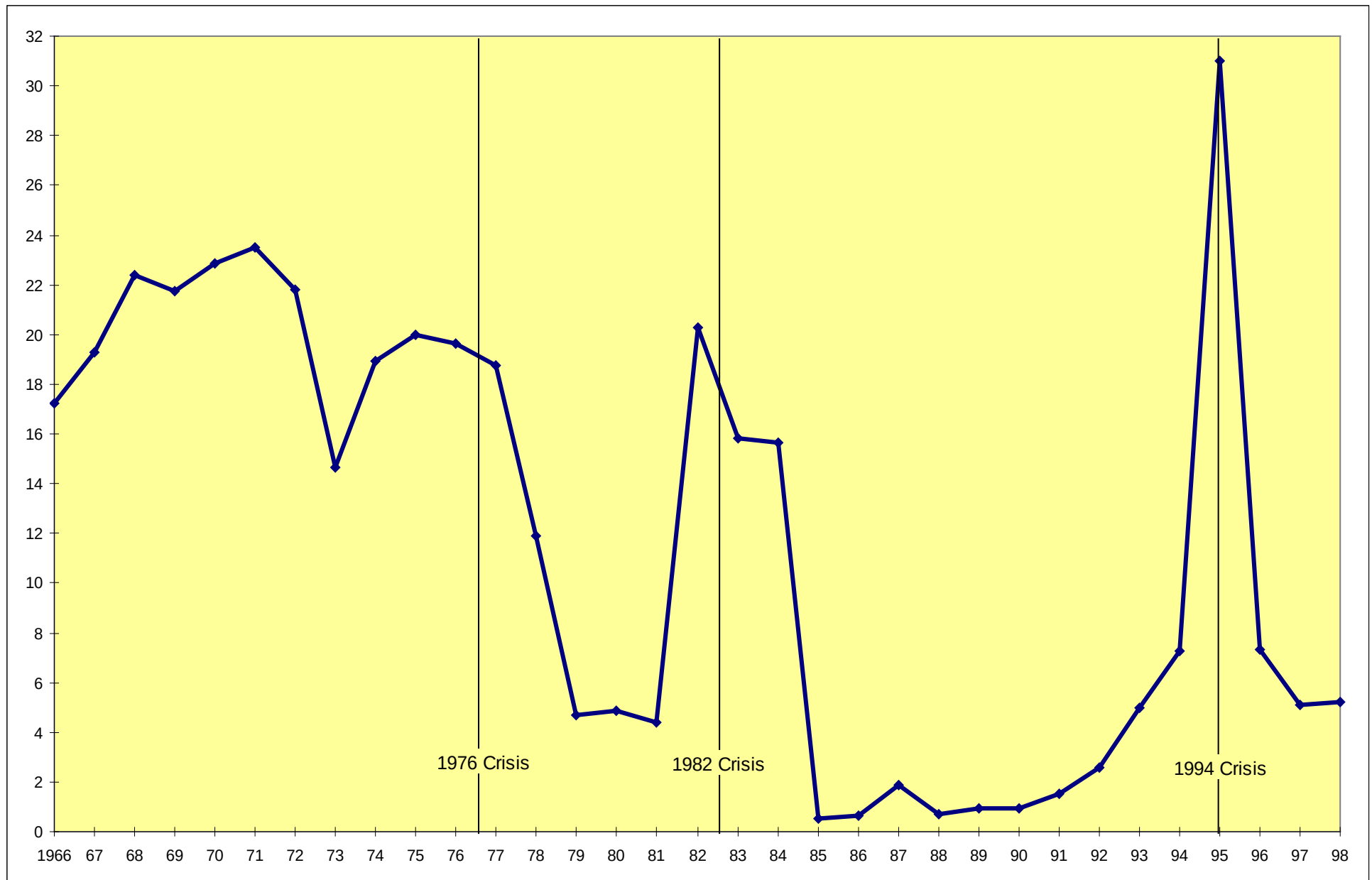
¹⁴ And, as it was the case in 1974 and 1982, the amount would be artificially inflated just before the announcement was made, by activating the swaps available with the U.S. Treasury and the Federal Reserve (see Chapter 5).

¹⁵ Indeed, Bank of Mexico radically altered its information policy on reserves after the 1994 crisis.

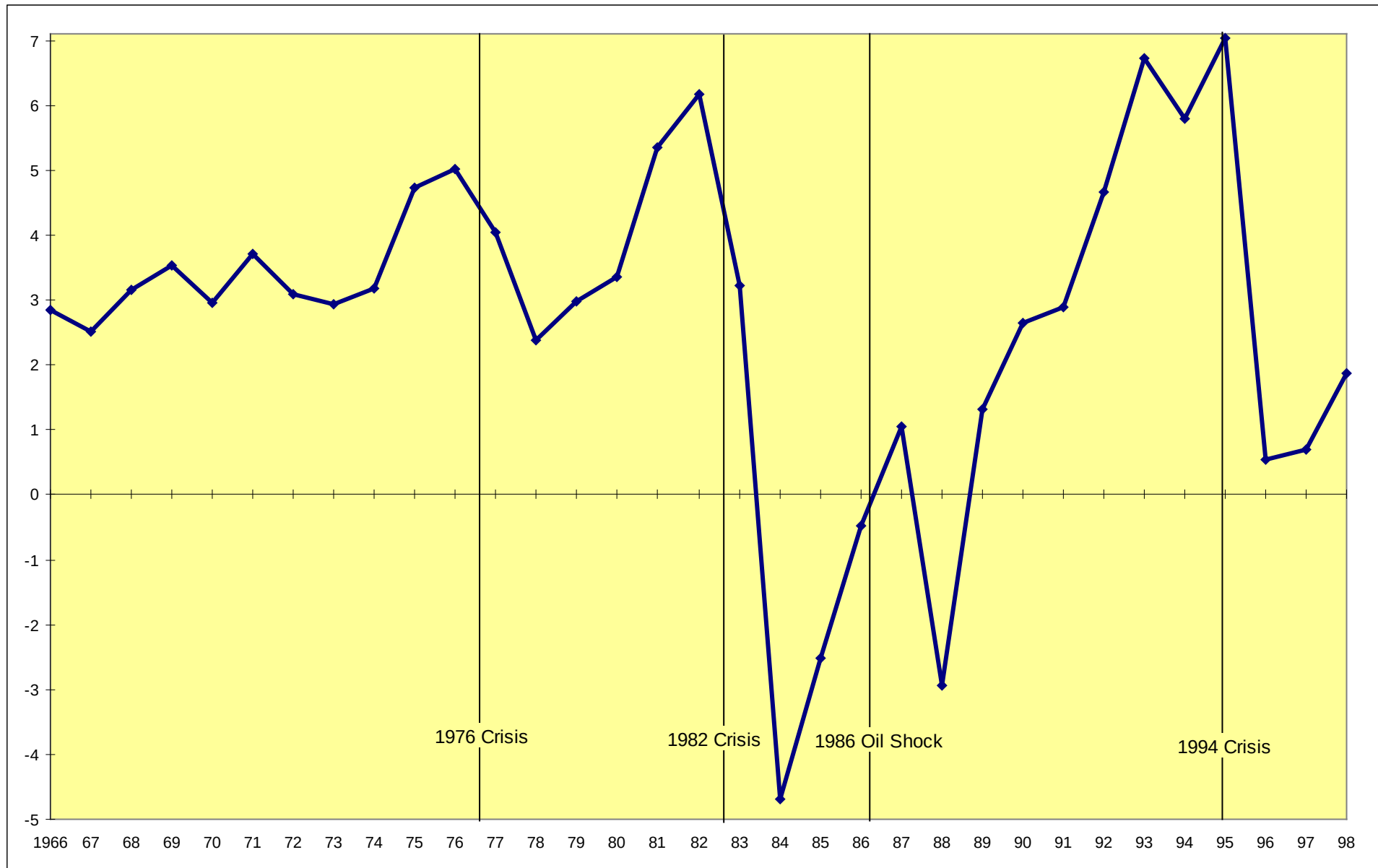
¹⁶ Of course, a different matter was if information on the matter was readily available. In 1981-82 it was not; in 1994 it was, as the results of the weekly auctions of internal debt instruments (such as Cetes and Tesobonos) were public –and even then the Cetes/Tesobonos massive swapping was not perceived, and by those that were attentive to it, it did not represent a problem to worry about (see Chapter 6).

Figure 7.5. Interest Payments/Reserves, 1971-1997
(percentages)

Source: Elaborated with data from Table B10.

Figure 7.6. Short-Term Debt/Total Debt, 1966-1997
(percentages)

Source: Elaborated with data from Table B10.

Figure 7.7. Current Account Deficit/GDP, 1965-1997
(percentages)

Source: Elaborated with data from Table A14.

7.7. DIFFERENT, AND MORE POWERFUL, INDEBTEDNESS INDICATORS

Two points have been made on a score of occasions: one is that debt is usually (at least partially) serviced with more debt. The second is that, therefore, what is crucial for any indebted sovereign are the flows (incoming and outgoing) of borrowing and servicing, while stocks have little relevance. Debt indicators should reflect these facts, and prove to be more powerful than those that rely on, for example, variables such as exports or GDP. The prime indicator would simply be a debt/debt ratio, with additional features that may be added to it.

- Net Nominal Indebtedness/Debt (Figure 7.8)

That is, the debt's growth rate. Before the three crises there is clearly a striking increase in that rate: in 1973-75, 1981, and 1994. This neck-breaking pace was brought to an abrupt halt when the respective crisis started. As the 1976 and 1982 crises begun in August that pace slowed somewhat for the whole of the year; that was not the case with the 1994 one, that erupted just a few days before the year ended. For several reasons -outlined in Chapter 5- the Mexican government accelerated its pace of external indebtedness. This rate was unsustainable, but it took the markets time to perceive it, thus Mexico was able to get away with it for some time, while accumulating an enormous amount of debt.

- Net Real Indebtedness/Debt (Figure 7.9)

However, the previous indicator may be distorted by international inflation (and considering that most of the Mexican external debt was dollar-denominated that means U.S. inflation), that was relatively high during the second half of the 1970s and the early 1980s (see Table C1). Therefore, it is important to present that indicator in real terms. However, even if the deflated results are naturally inferior to their nominal counterparts, the whole picture remains unchanged. The range gets narrower as, for example, 1981 is deflated, and gets nearer to a 1994 when U.S. inflation was much lower. An additional piece of information clear in Figure 7.9 is how low -or even negative- in real terms was indebtedness in certain periods such as 1971, 1979-80, or the early 1990s.

- Net Real Indebtedness/Debt Minus Real GDP Growth (Figure 7.10)

Although GDP is not a relevant variable to consider when trying to determine the degree of indebtedness of an economy, it is nevertheless important to the perception of the markets (and thus included in function 1.23), being radically different a booming economy that is borrowing heavily from one doing the same while going through a recession. But even if the relatively high rates of growth of the mid-1970s and the spectacular one registered in 1981 dent somewhat the real growth of the debt, this is enormous anyway. It is also important to note how this indicator registers very low or negative numbers in certain periods of time, such as the early and late 1970s, along with the whole of the 1990s with the very conspicuous exception of 1994, that is, periods when it was considered that the external indebtedness strategy followed was prudent (see Chapter 5).

- Net Nominal Indebtedness/Interest Payments (Figure 7.11)

A variant of the debt/debt ratios, and following the notion that debt service is at least partially financed with more debt, this indicator looks at the relationship between the amount of net indebtedness during certain period and the size of the interest bill paid during the same time. While indebtedness at a certain level above interest payments (i.e. an indicator above 100%) would be considered normal, considering that some debt is being virtually refinanced, the ratio provides additional evidence that the indebtedness registered before the three debt crises was extraordinary, with years in which the net indebtedness registered was enough to cover the interest bill for the period *more than four times*.

The four debt/debt indicators¹⁷ described above provide clear signs of when the Mexican economy was becoming heavily indebted, coherent with the perspective that flows are much more relevant than stocks to evaluate any situation on the matter. Table 7.4 provides a checklist of the effectiveness of all the different indicators just studied.

Table 7.4. Effectiveness of Indicators in Pointing to a Situation of Troublesome Indebtedness^a

Indicator	1976	1982	1994
Debt/GDP	No	No	No
Debt/Exports	Yes	No	No
Debt Interests/Exports	Yes	No	No
Debt Service/Exports	No	No	No
Interests/Reserves	No	Yes	Yes
Short-term Debt/Debt	Yes	Yes	Yes
Current Account Deficit/GDP	Yes	Yes	Yes
Net Nominal Indebtedness/Debt	Yes	Yes	Yes
Net Real Indebtedness/Debt	Yes	Yes	Yes
Net Real Indebtedness minus Real GDP Growth	Yes	Yes	Yes
Net Nominal Indebtedness/Interests	Yes	Yes	Yes

a. Understanding effectiveness by the signalling of a grave situation *before* the crisis exploded in the respective year.

Why are the most ineffective indicators the most popularly used -moreover by institutions such as the World Bank? One reason is the importance given to debt stocks; the other is that they pay no attention to how most sovereign borrowers deal routinely with their debts, that is, financing debt service with more debt, while looking instead at other flows as sources of finance for debt service (i.e. exports).¹⁸ The Mexican crises point on another direction (as described in section 7.1 above), and also to different indicators.

Based on the Mexican experiences, can any thresholds be drawn? It is possible to try to make *rough* divisions, at least to have some indication of what situation a sovereign is facing. As it is clear from Figures 7.6 and 7.8 to 7.11, there is a large grey area between the level the indicators depicted in those figures reached before the crises erupted, and the range where they moved in “normal” periods

¹⁷ The indicator that would naturally follow -the net nominal indebtedness/service- is not included because, as it has been pointed out, many amortisation payments are merely virtual refinancings, making the service amount delusive.

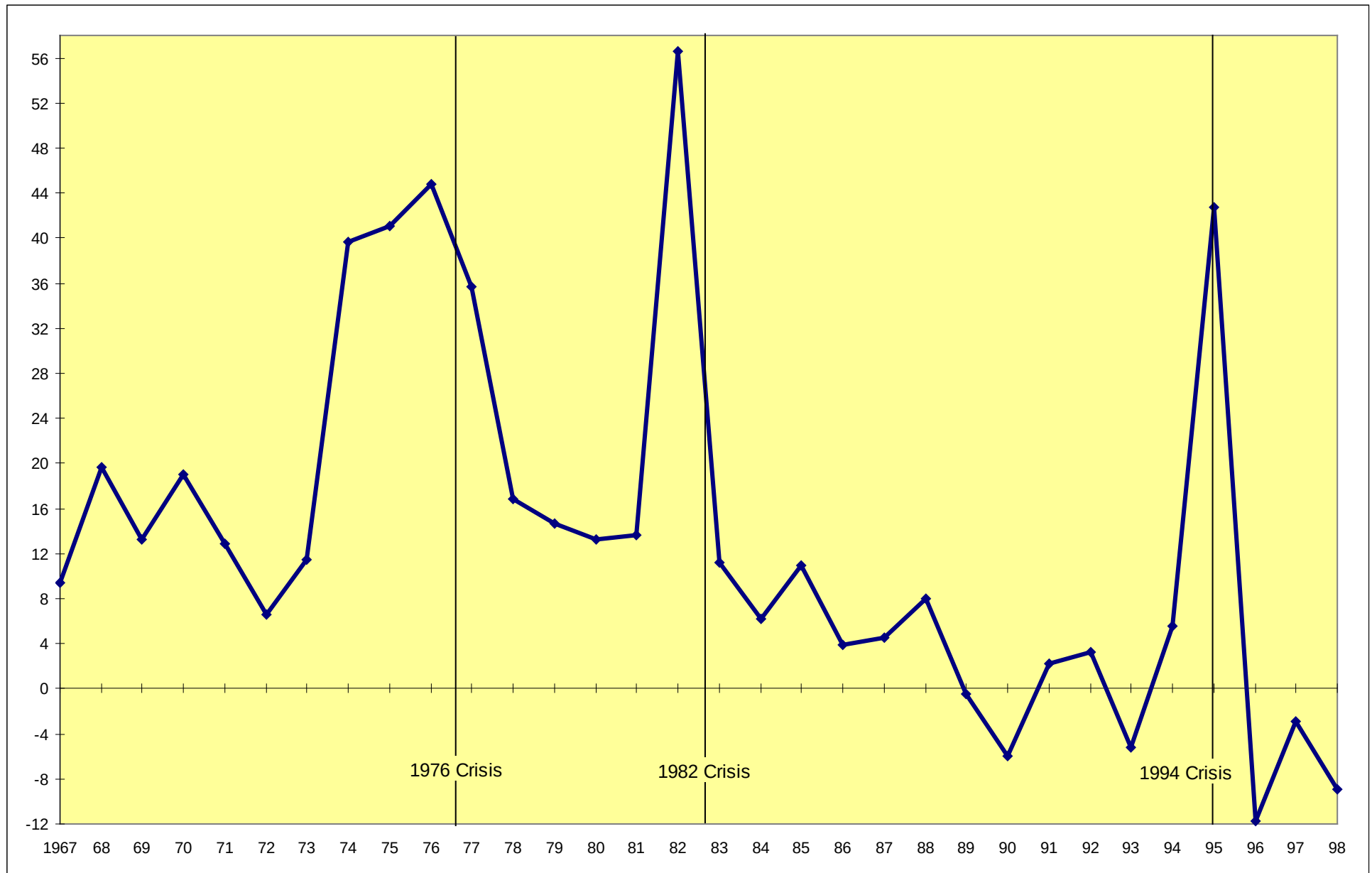
¹⁸ As it was pointed in Chapter 2, a sovereign borrower in distress certainly finances its debt service with a surplus in the trade account, as it has no option. However, that is generally not the case with a creditworthy country.

(by normal understanding that Mexico had access to the international capital markets and its indebtedness process allowed the country to maintain or even enhance that creditworthiness). The vast range where a sovereign may be standing at a certain period of time explains the numerous (seven) divisions presented in Table 7.5.

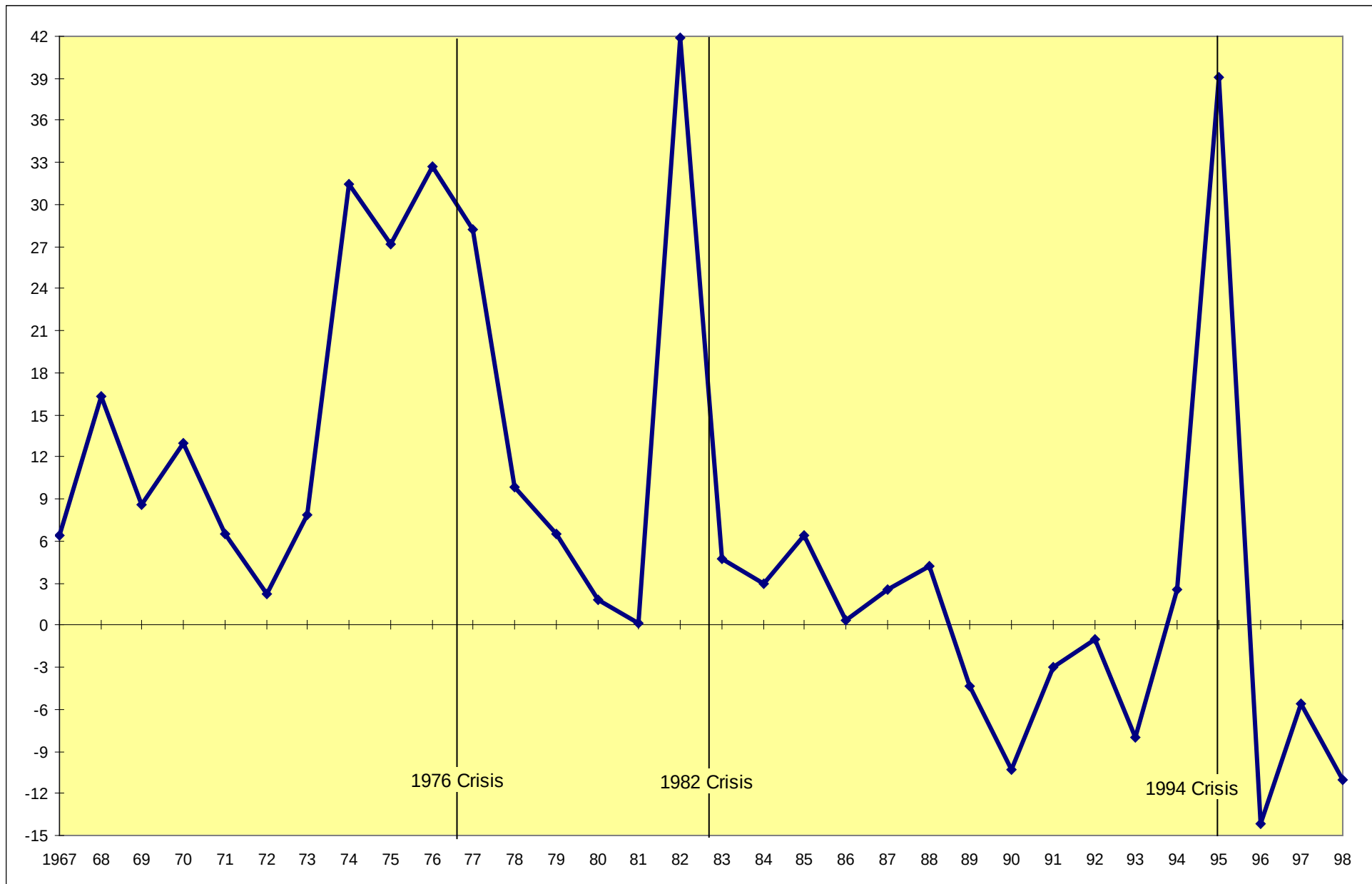
Table 7.5. Debt Indicators and Thresholds^a

Indicator and Thresholds	Outlook
Short-term Debt/Debt	
0% to 4%	Ideal
4% to 7%	Very Good
7% to 9%	Good
9% to 12%	Sustainable?
12% to 15%	Dangerous
15% to 18%	Very Dangerous
18%+	Crisis Possible
Net Real Indebtedness/Debt	
Negative to 2%	Ideal
2% to 4%	Very Good
4% to 6%	Good
6% to 9%	Sustainable?
9% to 15%	Dangerous
15% to 21%	Very Dangerous
21%+	Crisis Possible
Net Real Indebtedness minus Real GDP Growth	
Negative to 0%	Ideal
0% to 2%	Very Good
2% to 5%	Good
5% to 10%	Sustainable?
10% to 15%	Dangerous
15% to 20%	Very Dangerous
20%+	Crisis Possible
Net Nominal Indebtedness/Interests	
Negative to 20%	Ideal
20% to 70%	Very Good
70% to 120%	Good
120% to 180%	Sustainable?
180% to 250%	Dangerous
250% to 300%	Very Dangerous
300%+	Crisis Possible

a. Based in the case of Mexico depicted in Figures 7.6 and 7.9 to 7.11. Nominal net indebtedness/debt is not included considering that real net indebtedness/debt offers a similar usefulness, with the additional advantage that the distortion effects of inflation are eliminated.

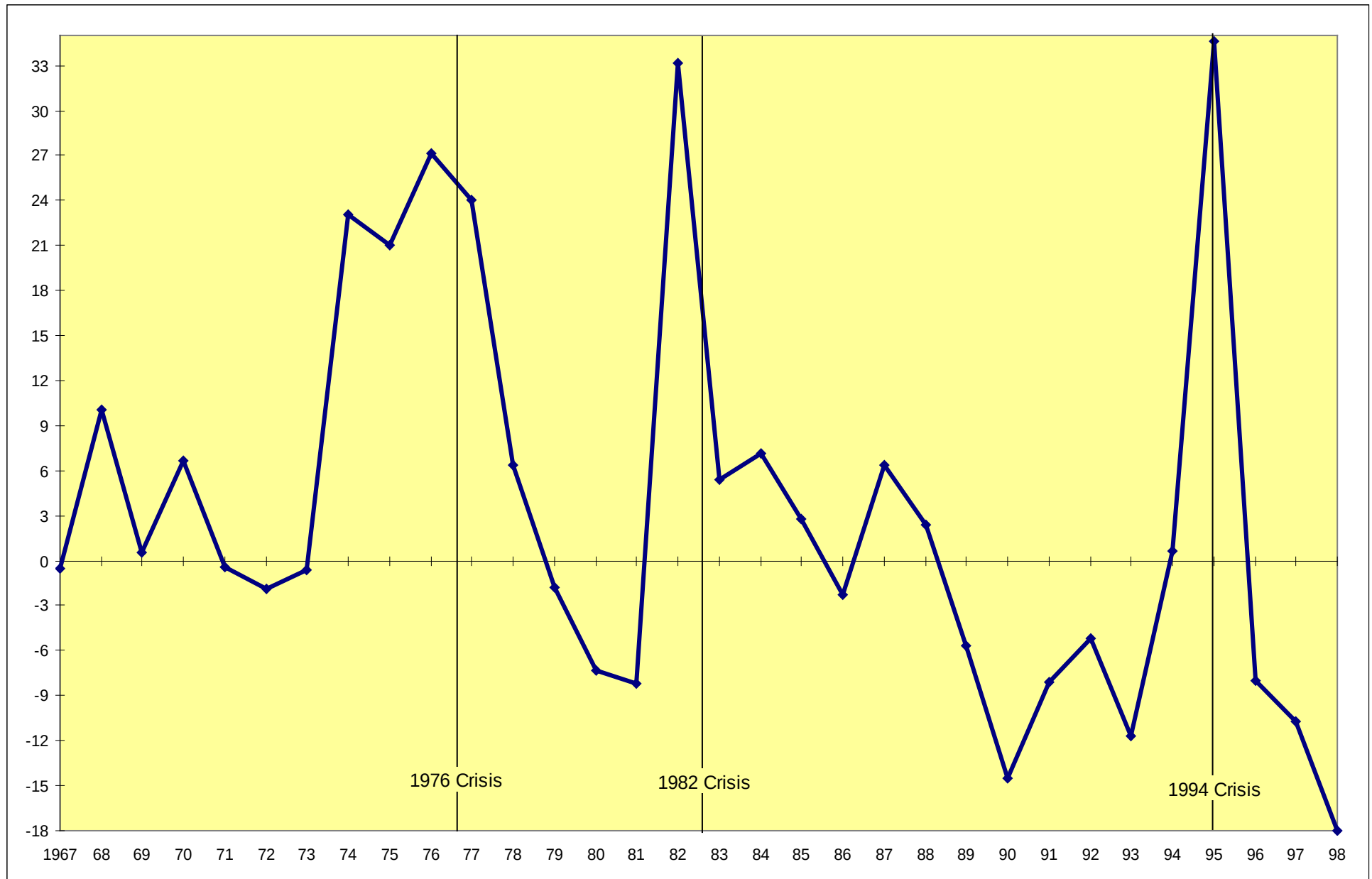
Figure 7.8. Net Nominal Indebtedness, 1966-1997
(percentages)

Source: Elaborated with data from Table B10.

Figure 7.9. Net Real Indebtedness, 1966-1997
(percentages)

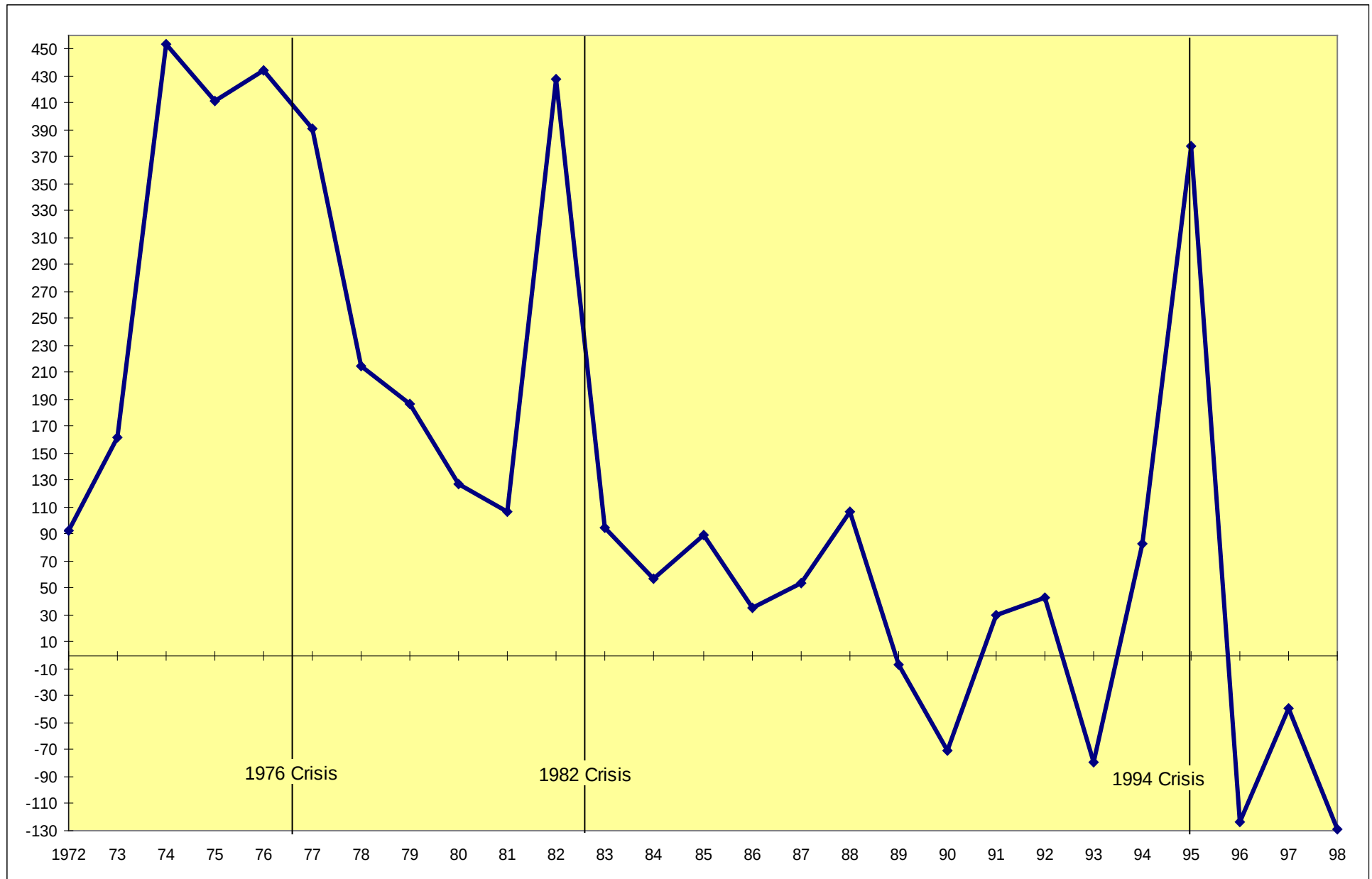
Source: Elaborated with data from Table B10.

Figure 7.10. Net Real Indebtedness Minus Real GDP Growth, 1966-1997
(percentages)



Source: Elaborated with data from Table B10.

Figure 7.11. Net Nominal Indebtedness/Interest payments, 1971-1997
(percentages)



Source: Elaborated with data from Table B10.

7.8. NEGOTIATION FRAMEWORKS AND OUTCOMES IN A DEBT CRISIS

The negotiations between Mexico (and several other HICs) and its creditors followed a similar pattern between 1982 and 1987, with MYRAs and “involuntary” loans as central elements. Two were the crucial issues negotiated in a MYRA: the amount of debt to be rescheduled and the new horizon of instalments, particularly the time (months or years) that capital and/or interest payments would be postponed. With respect to the “involuntary” loans, two were the central matters negotiated: the amount and the interest rate, with the former being by far the most important one. In 1989-90 a debt and debt service reduction agreement was negotiated under the Brady Plan, where the fundamental element in the negotiation was the debt reduction percentage to be agreed (see Chapter 6).

As depicted in Figures 2.1 and 2.2, the different MYRA negotiations took place under a bilateral monopoly framework. In the Mexican case (and that of other HICs), by far the most important element to be determined in the negotiations was the net transfer of payments that the country would make to its creditors. The interest rate was not so relevant; moreover as there was a floating rate and what was actually negotiated was the spread that would cap it. As it is clear from Chapter 6, those negotiations never took place within a competitive framework: the result depended directly on the strength of both sides. For example, if a market-oriented approach had really been followed, Mexico should have been able to borrow more resources, but at a much higher interest rate –a one that reflected the discount of its debt in the secondary market. Any pretence that market forces had a role to play in the negotiations was smashed on 16 November 1982, when the IMF managing director practically delivered an ultimatum to the commercial banks on how much, and when, they had to lend to Mexico. When Brazil tried a market-oriented strategy, it had to backtrack when the banks started to pull out (Mendelsohn 1983, 21-23).

What can be concluded about the different MYRAs outcomes? It can be argued that commercial banks got the better deal, as they received year after year a constant net transfer of resources. Even when principal payments were pushed into the (not very far) future, the amount that the banks agreed to lend to Mexico was less than the amount they received as interest payments.

In the context of a draconian adjustment effort, Mexico faced an uphill struggle when *besides* it had to make a net transfer of resources to its creditors. Undoubtedly the ideal for the Mexican government would have been to be able to obtain a net transfer of resources, to help with the adjustment effort, and not precisely the opposite. Why were the banks able to get the upper hand in the negotiations? At least three factors explain that success. Probably the most important was that the governments of industrialised countries, particularly the United States, were supporting their stance. Those governments feared that, in the worst scenario, the international financial system would collapse if moratoriums from several HICs wiped out the capital of the most important financial institutions. Their priority was to avoid that from happening, thus siding with the banks while putting the heat on the HICs.

The second factor was the structure of the banks' cartel, constituted by a very strong core, but surrounded by medium- and small-sized institutions.¹⁹ That solid core was constituted by several dozens of banks that were owed enormous amounts, but the Advisory Committee also represented

many more banks that were owed relatively small sums. Those small creditors had the incentive to become free-riders, that is, to refuse to enter the involuntary lending exercises, while continuing to receive the interests from their loans. Therefore, the biggest banks would not offer, even if they had wanted to, loans so big that would have implied a net transfer of resources to the country, unless they were willing to take on a biggest share of the loan. It was far from easy to syndicate the \$5.0 billion loan for Mexico in 1982-83, and the formula to achieve it was to distribute the weight on a pro-rata basis. Similar formulas were devised to syndicate the 1984 and 1986-87 involuntary loans. The leading creditor banks had no way to punish their reluctant peers, though they pressured them through several means (see Chapter 6). Mexico was unable to declare a selective default because of the clauses included in the loan contracts. In the improbable case that the banks in the Advisory Committee had authorised Mexico to skip interest payments for those banks that did not join the involuntary lending, probably at least some of those banks could have sued, and most probably won. The leading banks, thus, faced a huge pressure to resist any requests from bigger loans –as they would have been left clutching the baby. The third factor was that Mexico, trying to present a facade of responsibility, avoided default (to be explored in the following section).

How relevant was each one of the factors? At least, the support from the industrialised governments –particularly the United States- was fundamental: from 1982 to 1988 it supported the banks, in 1989 it moved its support to Mexico. For example, the bankers were compelled to lend \$5.0 billion by the IMF and, implicitly, the United States²⁰ U.S. government officials even brokered the final agreements, for example, in the 1986-87 MYRA and the 1989 Brady agreement. That power is evident in how the bargaining position of Mexico was considerably strengthened after the Brady Plan was announced (10 March, 1989). In just a few weeks a Letter of Intent was agreed with the IMF (11 April), loans negotiated with the World Bank (17 May) and Japan (30 May), and an agreement reached with the Paris Club (30 May), while negotiations with the commercial banks took place. By the end of June, Mexico had achieved a debt reduction agreement. The U.S. government, it can be argued, was a considerable force in the negotiations. Whatever side it choose to support, that side would increase considerably its strength, and obtain a result much more favourable to its objectives. The framework depicted in Figure 2.2, under which the interest rate or spread to be paid by the sovereign is determined, can be easily adapted to conform to the 1989-90 Brady negotiations, with the percentage of debt reduction instead.

¹⁹ Here size refers not to the magnitude of the bank *per se* (i.e. capital or assets) but to its exposure to Mexico and other HICs.

²⁰ It is important to point out that the meeting where the IMF managing director virtually presented an ultimatum to the bankers, as many others that would take place in the future, took place in the building of the New York Federal Reserve, thus giving an indirect U.S. endorsement. And, naturally, the IMF worked along with the U.S. Federal Reserve and other central banks.

7.9. COSTS AND BENEFITS OF NON-DEFAULT

The Mexican government consistently appealed to all the means available to avoid defaulting on its external debt payments. Although always present, the menace of default never crystallised. The extreme moments, when the country was on the verge of ceasing payments, arguably took place in February-March 1977, August 1982, February 1986, June 1989, and January-February 1995. Several reasons (some of which varied through time) explain why that option was avoided. In 1977 apparently the overriding reason was that Mexico would not isolate itself from the international financial arena.²¹ In 1982 the main consideration was that the country could be cut-off from international trade flows as a reprisal, thus losing access to imports of important staples, notably maize.²² Also, there was the concern that Mexico should present a responsible facade to the international financial community, even if it meant paying a short-term cost, such as loans paying high interest rates (see Chapter 6 for details).

In 1986-87 that was apparently the most powerful reason to avoid default: as several Latin American HICs fell into moratoriums, even assuming militant attitudes, Mexico stood out as the responsible country.²³ Also under that consideration, a “Debtor’s Cartel”, where several HICs, particularly the big ones, would join forces to negotiate with their commercial creditors, was always officially spurned.²⁴ One of the major collective initiatives that the Mexico government took rather pointed to exactly the opposite direction: at the end of 1984 it spearheaded the organisation of a \$500 million bridge loan to Argentina, to impede default from that country.

There was also the fear that domestic economic agents would react negatively to such a measure, which would add further uncertainty to the prospects of the country. That was precisely the basic motive why the government was keen on avoiding default during the 1989 negotiations, as the economy was undergoing a successful adjustment effort, under the *Pacto* agreements. It was considered that a moratorium would cause domestic economic agents to demand higher interest rates, already very high in real terms (see Table A7). In 1995, as in 1977 and the 1980s, the government wanted to recuperate the confidence from the capital markets as soon as possible, and a moratorium was seen as a step in the wrong direction. And, of course, in all the three crises, Mexico also was eager to sidestep default to avoid annoying the U.S. government, keen to avoid any disruptions to the international financial system.²⁵

With the benefit of hindsight, what were the results of the Mexican strategy of avoiding default at all costs? In terms of regaining access to the capital markets, undoubtedly it helped, but by how much it is debatable. It can be argued that, if it had declared a moratorium during the 1989 negotiations, it would

²¹ The need to keep the confidence of the international capital markets was the argument brandished by some ministers (and President López Portillo) to endorse the ratification of the IMF agreement during the 22 December 1976 Cabinet meeting (see Chapter 3). Arguably, that reasoning also applies to the choice of default.

²² One of the emergency credits negotiated in August 1982 was agreed with the CCC to finance food imports (see Chapter 6).

²³ The case of Peru in mid-1985, limiting external debt service to a percentage of exports, has been mentioned previously. Brazil also assumed a contentious attitude when defaulting at the beginning of 1987.

²⁴ President Lopez Portillo apparently explored the possibility of co-ordinated actions on the debt front with Brazil and Argentina (Kraft 1984, XX). If that indeed the case, those attempts took place when both countries wanted to be seen as different from Mexico. During the De la Madrid administration several consultation mechanisms were established between Latin American HICs, notably the Cartagena Consensus, but were always far away from a “debtors’ cartel. Oaxtepec...

²⁵ This is evident in all the negotiations where the U.S. government acted as a broker between Mexico and the commercial banks (see Chapter 6).

have been impossible for the government to successfully issue the bond marketed in June of that year. However, if a moratorium had been declared, for example, in February 1986 (as a result of the collapse in oil prices), and debt service had started again a year later, it would be difficult to say that. Looking at the experience of other HICs, it would be argued that a moratorium declared between 1982 and 1987 would have not affected the ultimate return of Mexico to the capital markets. Countries like Venezuela and Argentina accumulated arrears in their interest (*and* capital) payments not long before Brady agreements were reached, attaining debt reduction packages comparable to that obtained by Mexico, and returning to the capital markets shortly afterwards (see Table D22). In both cases, it was much more important that a fiscal correction had been achieved.²⁶

That was also the case of Mexico. The 1989 return to the capital markets can be explained rather by the correction in public finances achieved through the *Pacto* and the Brady Plan, as it has been argued previously in the chapter. The recuperation of creditworthiness in May 1995 can also be explained by other factors. Naturally, if Mexico had declared a moratorium on the Tesobono debt the previous February, for example, it can be ascertained that the return to the capital markets would have taken more time. Therefore, it may be said that the experience of Mexico and that of other countries shows that the memory of the markets is relatively short, and while a moratorium undoubtedly affects the creditworthiness of a sovereign, other elements (such as the fiscal balance) are much more important. Moreover, when the circumstances under which default was declared have changed. That is, the markets apparently *do* distinguish between a *won't pay* attitude (the Peruvian 1985 partial moratorium is the prime example) from a *can't pay* stance, as would have been the case had Mexico declared default in 1985 (as a result of the earthquake) or 1986 (following the plunge in oil prices).

Moreover, despite the facts that Mexico always covered its interests punctually and that it invested heavily in its image of responsible debtor, apparently the markets did not give the country a distinct status. The 1988 Aztec bond offer was a flop, it was argued, in part because no interest payments were guaranteed for a minimum period. In the 1989 Brady negotiations this was corrected, but the banks demanded anyway a guarantee for a longer period of time (see Chapter 6). In a certain way, Mexico was probably suffering from a contagion effect from those countries that had defaulted.

It may be argued that the most important consequence of a moratorium was that the HIC saved resources; that it would use for other purposes that money that should have been transferred to its creditors, or also that it would not need to implement a draconian adjustment to, for example, obtain a surplus in its current account (to finance those payments). Under that perspective, Mexico never saved any resources. However, in that sense default was futile, as all the countries that, for whatever reasons, declared partial or total moratoriums eventually paid up their arrears. Moreover, the temporary savings that some HICs managed through defaults were squandered, in the sense that they were not utilised to pursue a successful adjustment, but to finance expansionary policies that ended in hyperinflation.²⁷

²⁶ Albeit short-lived in the case of Venezuela. Cline (1995, 275-344) presents excellent accounts of the economic policies and the debt strategies implemented by several Latin American countries

²⁷ Yet again, Peru is again the prime example (Lago 1991). Brazil defaulted in February 1987 when the Cruzado Plan begun to unravel

Were there no benefits in default that Mexico would have exploited? Arguably, yes, and apparently it did: to obtain a better deal from its commercial creditors and/or the U.S. government. At least in two occasions during the 1980s debt crisis the country was on the verge of default, although in both occasions it leaked that it would so in a (relatively) responsible manner (see Chapter 6). In both the U.S. government (through the Treasury and the Federal Reserve) stepped in, and pressured both parts to reach a settlement. It is just possible to hypothesise that Mexico would have obtained bigger involuntary loans from the banks or greater support for some alternative course to the traditional MYRA (as eventually was the Brady Plan) from the U.S. government had it in fact defaulted. However, that is open to question. When Brazil defaulted in February 1987, it did not bring an offer of an involuntary loan from the commercial banks. Rather, according to the analysis by Cline (1995, 324-325) it triggered a major new phase in the international debt strategy, by inducing the leading banks to begin to set aside reserves. With a reserve cushion, the stage was set for the possibility of eventual debt reduction, because of the greater ability of the international financial system to withstand the shock (see also Kuczynski 1988, 177-180). Default from Mexico in 1986 or 1987 may well have had a similar outcome.

Non-default apparently brought an important gain, in the sense that it kept Mexico in the avant-garde in the changing international policy strategy to confront the debt crisis. However, even if it was always at the front, it was never standing alone: radical proposals that were put forward by the Mexican government in 1987 and 1988 were virtually rejected immediately because of fears of a precedent effect: that other HICs would demand a similar treatment. Mexico refused to be put into the same boat with other debtors, but it was anyway. Its only advantage was that it was able to get out first.

All in all, default may arguably be a worthy negotiating strategy to achieve certain goals from creditors (and those that support them). But not much more, and unquestionably not an alternative to save resources. And it must certainly be temporal. On the other hand, contrary to what the behaviour by Mexico seemed to assume, it does not carry a long-term stigma that may preclude the sovereign from returning to the international capital markets. The Mexican strategy was, in the whole, the correct one, but the obsession with the responsibility facade seems misplaced.

7.10. THE ROLE OF IFIS AND INDUSTRIALISED COUNTRIES

Arguably, the first obvious lesson taught by the Mexican debt crises on the matter of intervention by IFIs and the governments of industrialised countries is that, precisely, intervention is fundamental to avoid costlier consequences. While this may seem self-evident in the mid-1990s, it is important to remember that at the beginning of the 1980s, particularly the first years of the Reagan administration, the prevalent view was that market forces would, and should, take care of economic matters –including any external debt crises.²⁸

While the 1982 Mexican debt crisis arguably rested the case for the need of active *intervention* –a prime example in the change of attitude and policies of the Reagan administration is the turnaround with respect to its envisioned role for the IMF- the 1994-95 crisis reawakened the search of practical ways of *prevention*. That is, the quest for a sort of global alarm system to alert the international financial community of a pending Mexican-style crisis. The IMF's ministerial-level Interim Committee in April 1995 requested a set of standards to guide IMF members in providing economic and financial statistics to the public. A similar request was made to the Fund in June 1995 by the G-7 Heads of State at their Summit in Halifax. The communiqué from the Halifax G7 summit recommended three main developments to improve the ability of international institutions to cope with financial crises: a) an improved early-warning system; b) improved financing mechanisms for dealing with liquidity crises, and c) other procedures for the orderly resolution of financial crises. In April 1996 the IMF approved the Special Data Dissemination Standard (SDDS) for provision of economic and financial statistics by member countries (on a voluntary basis). As part of the SDDS an electronic Dissemination Standards Bulletin Board (DSBB) was established on the Internet, and launched in September 1996, with 34 countries (Mexico among them). The more comprehensive General Data Dissemination System (GDDS) was officially established in December 1997, and will take several years to implement.²⁹

The establishment of the SDDS and the DSBB is undoubtedly a step in the right direction and, at least in the case of Mexico, debt/debt based indicators (such as the ones presented in section 7.4) can be constructed with a 46-day lag from the information available through the DSBB.³⁰ However, crisis such as the ones suffered in the second half of the 1990s by several Asian countries took place despite the fact that some of them were even founding members of the SDSS and the DSBB.³¹

If the experience in the immediate years after the Mexico 1994-95 crisis is anything to go by, crises will continue taking place as they many times do: erupting without warning and with a virulence impossible to foresee. IFIs, particularly the IMF, have to be ready to determine what kind of crisis is the country in dire straits facing, either liquidity or structural, to act consequently. For example, following Bagehot, if the crisis belongs to the liquidity type, it should lend generously (even at high interest rates) *and*, as it can be derived from the Mexican experience (see sections 7.4 and 7.5), *announce* that it will

²⁸ Kraft (1984) quotes Beryl Sprinkel, undersecretary of monetary affairs, alleging that the market would take care if any problems erupted with sovereign borrowers. That is not to say that the Reagan administration did not react quickly to intervene when Mexico hit the rocks, but it nevertheless initially refused to increase its quota to the IMF in a substantial amount. See Howe (1994, 270-273) for a brief description of the 1983 wrangling on the matter.

²⁹ See the IMF Press Bulletins 96/18 (16 April 1996) and 96/47 (19 September 1996), both available at <http://www.imf.org>. The DSBB Internet address is <http://dsbb.imf.org>, and presents details on the future GDDS.

³⁰ Information available at <http://dsbb.imf.org/country/mexcats.htm>.

lend much more than what is really needed. Enormous amounts of money have to be flashed around to diminish the panic that takes hold of economic agents in a crisis, even if that money is never going to be used. In the case of a structural crisis, particular attention has to be paid to the fiscal balance, or any other disequilibrium, to design and implement a medium-term programme to correct it. Following the lessons from Mexico (see Section 7.5) a draconian internal adjustment that is perceived as potentially successful (internal trigger) combined with the announcement that a pile of money is available (external trigger) should do the trick.

The ideal institution to orchestrate such steps is the IMF, as a government could be sensitive to direct intervention from other countries. To fulfil that role, the Fund would require huge amounts of money. In the months that followed the Mexico 1995 financial meltdown, its Executive Board started work on implementing an emergency procedure aimed at helping countries in a liquidity crisis gain faster access to financial help from the Fund. On 8 October 1995, the Interim Committee accepted the Executive Board's decision to set up such a procedure. At the end of January 1997, the mechanism to be known as New Arrangements to Borrow (NAB) was announced. 25 countries would participate, willing to make loans to the IMF when supplementary resources were needed to forestall or cope with an impairment of the international monetary system, or to deal with an exceptional situation that poses a threat to the stability of the system. The amount of the resources available to the IMF under the NAB would be up to SDR34 billion (about \$48 billion).³² The NAB does not replace the General Arrangements to Borrow (GAB). However, the NAB would be the facility of first and principal recourse in the event of a need to provide supplementary resources to the IMF. The amount available under the GAB will remain unchanged at SDR17 billion (about US\$24 billion). However, by mid-1998 the agreement had yet to enter into force and, as a result, the IMF had to appeal to the GAB in July, for the first time since 1978.³³ It had to so because the authorisation of \$18 billion of new funds for the IMF requested by the Clinton administration was blocked by Congress. That should be the foremost role for industrialised countries, particularly the United States: to adequately support the Fund in its tasks. And, as it happened in the Mexico, to be readily available to add from their own resources to the stockpile of money necessary (the real plus the inflated amount necessary to activate the external trigger) to help the country in trouble to overcome the crisis –individually or through the BIS.

³¹ Japan, Thailand and Malaysia were founding members; South Korea and Indonesia also became members.

³² See press bulletin 97/5, January 27 1997, available at <http://www.imf.org>.

³³ To finance a loan approved for the Russian Federation. See *The Economist* (1998).

7.11. SUGGESTIONS FOR AN INDEBTEDNESS POLICY BY A SOVEREIGN

As described in Chapter 1, two approaches may be followed to study the indebtedness process of a country. One is to ask how much a country *should* borrow, that is, what is the optimal level of external debt? The second approach focuses on trying to determine how much a country is *able to pay*, while simultaneously sustaining a certain development strategy. The approach followed was the later one. Looking at the Mexican experience, and particularly its debt crises, which should be the elements of a virtuous indebtedness policy?

It can be argued that any sovereign, but particularly those that do not belong to the relatively small club of industrialised nations, should not make any net transfer of resources, under the consideration that the country needs them. In order to achieve that, a sovereign needs to maintain its creditworthiness, to have an open access to the international markets and appeal to them when necessary. Otherwise, as it clearly happened with Mexico, along with the markets closure the need arises of making net transfers, sometimes at a huge cost in terms of economic growth.

At least there is no apparent reason why a country should not be able to keep that creditworthiness, while receiving a net transfer of resources in the long term. Moreover when a period of historically high international interest rates, the 1980s, has been left behind. Naturally, a permanent (or perceived as permanent) external shock may cause a loss of creditworthiness while the country adjusts to the new circumstances. If there are not any external factors that affect (positively or negatively) its stature in the capital markets, the country should follow an indebtedness policy that is sustainable. For example, by keeping the pace of indebtedness in safe levels, such as those presented in Table 7.5. The fundamental issue is to keep the confidence of the markets, so that the country can (at least partially) finance its debt service with additional debt, lent by old and/or new creditors. The market has to be fully exploited, particularly, to lengthen the payments' horizon, while flattening any peaks, and pushing debt payments as much into the future as possible, while simultaneously (if possible) reducing the cost of the debt, i.e. paying a credit with resources from a cheaper loan.

There are no clear-cut limits or optimums in the amount of debt. Those limits are in any case dictated by that ethereal value of Q —that includes the expectations of present and potential creditors. In order not to violate what the markets may perceive as a sustainable pace of indebtedness, as the Mexican government did in 1973-75, 1981-82, and 1994, it is fundamental to adjust the economy when the need for external resources increases markedly. For example, following the Fishlow equations presented in Chapter 1, when the fiscal deficit increases, domestic savings fall, domestic investments expand, or when the trade account deficit increases (all compared to the trend observed when the indebtedness pace was sustainable). The most important one, arguably, is the fiscal deficit, as an increasing gap between savings and investments or exports and imports can be explained by activities of the private sector, that may well have adequate financing to fill that breach.³⁴ However, an inadequate behaviour from private sector economic agents may be caused by certain policies followed by the government. Looking at the case of Mexico, a fundamental one is the exchange rate policy. An overvalued exchange rate not increases any deficit in the external accounts, but also incentives capital

flight. Moreover, an overvalued exchange rate may cause a reduction in private savings. The floating exchange regime that exists since December 1994 seems a good alternative to avoid a sharp overvaluation, moreover considering that the lessons from the 1994-95 crisis are still very fresh in the minds of economic agents.

Therefore, a policy mix for helps to sustain an adequate external indebtedness policy should include healthy fiscal accounts, an exchange rate regime that avoids a sharp overvaluation of the domestic currency, and policies that increase internal savings. By augmenting internal savings, in fact, a country has the possibility of depending less on external debt, and more on internal debt. Even while the total amount of public debt may be stable or increase (as a percentage of GDP), its composition in that sense may change radically. Looking at the industrialised economies, that may well be the future of public indebtedness for LDCs, such as Mexico. The adequate management of the external debt undoubtedly represents a continuous and never-ending challenge, and one where it is relatively easy to fail, as the case of Mexico clearly attests.

³⁴ That is not to say that *private* external indebtedness should not be under close scrutiny by the government, as the cases of Mexico and several Asian countries during the second half of the 1990s demonstrate.

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APPENDIX A

MEXICAN ECONOMY STATISTICS

Table A1. GDP Values, Real Growth, GDP Deflator, and Inflation, 1950-97

Year	Current ^a	Constant ^a	GDP Dollars ^b	Growth	Deflator	Inflation ^c
1950	42,162.8	662,553.4	4874.3	-	100.0	n.a.
1951	54,374.7	713,789.7	6286.1	7.73	119.7	23.97
1952	60,992.6	742,175.4	7051.2	3.98	129.1	4.00
1953	60,663.7	744,211.7	7013.1	0.27	128.1	-1.92
1954	73,935.6	818,600.3	6511.7	10.00	141.9	7.84
1955	90,053.3	888,168.8	7209.7	8.50	159.3	14.55
1956	102,919.9	948,893.2	8239.8	6.84	170.4	5.29
1957	118,205.7	1,020,769	9463.6	7.57	182.0	6.03
1958	131,376.8	1,075,059	10518.1	5.32	192.0	3.32
1959	140,771.5	1,107,215	11270.2	2.99	199.8	0.00
1960	159,703.2	1,197,081	12785.9	8.12	209.6	5.50
1961	173,236.1	1,256,095	13869.3	4.93	216.7	0.00
1962	186,780.7	1,314,783	14953.7	4.67	223.2	1.30
1963	207,952.3	1,419,817	16648.7	7.99	230.2	2.15
1964	245,500.5	1,585,837	19654.8	11.69	243.3	5.04
1965	267,420.2	1,688,675	21409.7	6.48	248.9	0.80
1966	297,196.0	1,805,726	23793.6	6.93	258.6	1.98
1967	325,024.8	1,918,943	26021.6	6.27	266.2	0.78
1968	359,857.7	2,075,062	28810.3	8.14	272.5	1.93
1969	397,796.4	2,206,285	31847.7	6.32	283.3	1.68
1970	444,271.4	2,358,991	35568.5	6.92	295.9	4.6
1971	491,026.8	2,457,395	39311.7	4.17	314.0	5.0
1972	567,549.3	2,665,975	45438.1	8.49	334.5	5.6
1973	697,145.1	2,890,158	55813.6	8.41	379.0	21.4
1974	912,505.5	3,066,769	73055.4	6.11	467.6	20.7
1975	1,120,192.1	3,238,848	89682.8	5.61	543.5	11.3
1976	1,402,163.4	3,376,136	90789.0	4.24	652.6	27.1
1977	1,902,065.2	3,492,368	84240.5	3.44	855.8	20.7
1978	2,415,341.3	3,780,482	106089.6	8.25	1004.0	16.2
1979	3,185,847.1	4,126,576	139697.0	9.15	1213.2	20.0
1980	4470.08	4,470,077	194765.3	8.32	1571.4	29.8
1981	6467.03	4,851,178	263809.5	8.53	1980.4	28.7
1982	10411.98	4,825,913	182104.9	-0.52	3186.5	98.8
1983	18754.73	4,657,661	124786.8	-3.49	6069.4	80.8
1984	30919.05	4,816,525	166959.4	3.41	9656.3	59.2
1985	50151.98	4,921,896	161635.4	2.19	15135.3	63.7
1986	82317.75	4,770,353	129049.9	-3.08	26391.7	105.7
1987	203340.63	4,852,520	144643.1	1.72	62971.3	159.2
1988	412821.25	4,914,790	180304.1	1.28	125626.8	51.7
1989	544977.75	5,116,567	219450.3	4.11	169475.9	19.7
1990	734801.83	5,381,389	258882.8	5.18	217150.4	29.9
1991	945190.13	5,608,201	313423.9	4.21	267639.2	18.8
1992	1123936.45	5,806,793	363185.8	3.54	306208.7	11.9
1993	1256195.98	5,919,512	403247.3	1.94	335277.1	8.0
1994	1423364.18	6,183,419	421725.0	4.46	363829.8	7.1
1995	1840430.83	5,798,935	286716.1	-6.22	501265.1	52.0
1996	2529908.60	6,096,990	332904.6	5.14	650027.5	27.7
1997	3178953.90	6,509,277	401459.1	6.76	771989.4	15.7

Note: In the 1990s the government changed the weight that economic sectors had in the GDP. The statistics after 1980 use the new methodology, and are *not* comparable to the previous ones (a whole set of historical data is not available).

a. Million pesos, million new pesos (1 new peso = 1000 old pesos) after 1980. Constant GDP in 1980 pesos.

b. Million dollars. Current GDP divided by the average exchange rate of the period (see Table A17 of this Appendix).

c. Percentage change in December-December price index (CPI since 1969).

Source: Banco de México(d) before 1980; INEGI Internet database since 1980; Aspe (1993, 69) and Table A4.

Table A2. Investments and Savings, 1950-96
(GDP percentages)

Year	Investments			Savings			External	Total
	Public	Private	Total	Public	Private	Internal		
1950	5.5	7.7	13.3	6.0	8.5	14.5	-1.2	13.3
1951	5.5	9.8	15.3	5.9	6.8	12.7	2.6	15.3
1952	5.7	10.1	15.8	5.5	9.3	14.8	1.0	15.8
1953	5.4	9.1	14.5	4.6	8.3	12.9	1.6	14.5
1954	6.0	9.2	15.2	5.7	9.0	14.7	0.5	15.2
1955	5.2	9.9	15.1	5.3	10.3	15.6	-0.5	15.1
1956	4.7	12.2	16.9	4.6	11.2	15.8	1.1	16.9
1957	5.0	11.8	16.8	4.7	9.4	14.0	2.8	16.8
1958	5.0	10.6	15.6	5.9	7.4	13.3	2.3	15.6
1959	4.9	10.2	15.1	4.2	9.7	13.9	1.2	15.1
1960	5.6	10.3	16.0	4.3	10.7	15.0	2.8	17.8
1961	6.4	8.4	14.8	3.8	11.1	14.9	2.1	17.1
1962	6.2	8.2	14.5	3.9	11.2	15.1	1.4	16.5
1963	7.1	8.6	15.7	4.3	11.9	16.2	1.2	17.3
1964	7.5	9.0	16.5	5.2	11.9	17.1	2.0	19.0
1965	5.3	11.2	16.5	3.3	13.3	16.6	1.8	18.4
1966	5.8	11.1	17.0	3.7	13.4	17.1	1.8	18.9
1967	7.0	11.3	18.3	3.8	13.8	17.6	2.0	19.6
1968	7.0	11.2	18.3	4.1	13.4	17.6	2.4	20.0
1969	7.2	11.1	18.3	4.4	13.6	18.0	2.0	20.0
1970	6.6	12.0	18.5	3.2	13.9	17.1	3.0	20.1
1971	4.6	13.3	17.9	2.7	13.4	16.1	2.1	18.3
1972	6.1	12.9	19.0	2.2	14.8	17.0	2.0	19.0
1973	7.5	11.8	19.3	4.0	12.5	16.6	2.5	19.1
1974	7.5	12.3	19.8	3.6	12.4	16.0	4.0	20.0
1975	5.0	12.4	17.4	1.4	15.2	16.7	4.5	21.2
1976	8.2	12.9	21.1	3.2	13.9	17.1	3.7	20.8
1977	7.8	11.8	19.6	4.3	13.7	18.0	1.8	19.7
1978	9.5	11.6	21.1	5.0	13.5	18.5	2.4	20.8
1979	10.3	13.2	23.5	5.2	14.6	19.8	3.2	23.1
1980	10.7	14.1	24.8	5.9	14.6	20.5	5.0	25.6
1981	12.1	14.3	26.4	1.2	18.4	19.6	6.1	25.7
1982	10.4	12.5	22.9	3.7	15.1	18.8	2.7	21.5
1983	7.6	13.1	20.7	6.1	17.3	23.4	-3.7	19.7
1984	7.7	12.2	19.9	5.5	15.6	21.1	-2.2	18.8
1985	6.4	14.8	21.2	5.4	15.1	20.5	-0.4	20.1
1986	5.9	12.6	18.5	4.5	11.9	16.4	1.0	17.4
1987	5.6	13.7	19.3	6.5	14.8	21.3	-2.8	18.5
1988	4.9	15.5	20.4	0.6	20.7	21.3	1.3	22.6
1989	4.4	17.1	21.5	3.3	17.0	20.3	2.6	22.9
1990	4.9	16.9	21.8	6.8	13.5	20.3	2.8	23.1
1991	4.6	17.8	22.4	6.5	12.2	18.7	4.7	23.3
1992	4.2	19.1	23.3	6.6	10.0	16.6	6.7	23.3
1993	4.2	17.8	22.0	5.1	10.0	15.1	5.9	21.0
1994	4.3	17.9	22.2	4.0	11.0	15.0	6.7	21.7
1995	3.3	11.3	14.6	4.7	14.3	19.0	0.6	19.6
1996	3.6	11.6	15.2	4.4	16.1	20.4	0.5	20.9

Source: Presidencia de la República (1997), Appendix, Table 1. Document available at the Internet archive of Presidencia.

Table A3. Public Finance Balances^a, 1965-97
(As a percentage of GDP)

Year	Financial ^b	Economic ^c	Operational ^d		Primary ^e	
			(1)	(2)	(1)	(2)
1965	-0.8	-0.8	-0.7	-0.7	0.0	0.0
1966	-1.1	-1.1	-0.6	-0.6	-0.2	-0.2
1967	-2.1	-2.2	-1.7	-1.7	-0.8	-0.8
1968	-1.9	-1.9	-1.4	-1.4	-0.7	-0.7
1969	-2.0	-1.9	-1.3	-1.3	-0.7	-0.7
1970	-3.4	-3.4	-2.6	-2.6	-1.3	-1.3
1971	-2.3	-2.1	-1.3	-1.3	-0.4	-0.4
1972	-4.5	-4.2	-3.3	-3.3	-2.2	-2.2
1973	-6.3	-5.6	-2.5	-2.5	-3.5	-3.5
1974	-6.7	-5.9	-3.1	-3.1	-3.7	-3.7
1975	-9.3	-8.6	-6.8	-6.8	-6.0	-6.0
1976	-9.1	-8.1	-4.1	-4.1	-4.6	-4.6
1977	-6.1	-4.8	-2.6	-2.6	-2.2	-2.2
1978	-6.0	-4.9	-3.4	-3.4	-2.2	-2.2
1979	-6.8	-5.5	-3.8	-3.8	-2.7	-2.7
1980	-7.5	-6.5	-3.6	-3.6	-3.0	-3.0
1981	-14.1	-13.0	-10.0	-10.0	-8.0	-8.0
1982	-16.9	-15.6	-5.5	-5.8	-7.3	-2.5
1983	-8.6	-8.1	0.4	-3.7	4.2	4.0
1984	-8.5	-7.1	-0.3	-0.2	4.8	4.8
1985	-9.6	-8.0	-0.8	-1.3	3.4	3.9
1986	-16.0	-14.9	-2.4	-3.5	1.6	2.5
1987	-16.0	-15.0	1.8	3.3	4.7	5.7
1988	-12.5	-10.9	-3.6	-3.2	8.0	8.4
1989	-5.6	-5.0	-1.7	-1.9	7.9	8.3
1990	-3.9	-2.8	2.3	1.7	7.8	8.0
1991	-1.5	-0.5	3.3	3.3	5.3	5.5
1991 [†]	1.7	2.7	6.9	6.5	9.0	8.7
1992	0.5	1.6	3.6	2.5	5.6	5.9
1992 ^f	3.2	4.3	6.8	5.2	8.6	8.6
1993	-2.3 ^g	0.7	n.a.	0.8	n.a.	3.3
1993 [†]	-1.9 ^g	n.a.	1.6	n.a.	n.a.	n.a.
1994	-3.4 ^g	-0.1	n.a.	-0.5	n.a.	2.1
1994 ^f	-3.0 ^g	n.a.	n.a.	n.a.	n.a.	n.a.
1995 ^h	0.6 ^g	0.0	n.a.	0.7	n.a.	4.7
1996	n.a.	0.0	n.a.	-0.5	n.a.	4.4
1997	n.a.	-0.8	n.a.	-0.2	n.a.	3.5

Note: Since 1993 the public financial sector is excluded from the public finance balances (thus excluding "financial intermediation" - the development banks' deficit). The Economic Balance equals the Financial Balance minus that concept. Definition (1) of the Operational and Primary balances includes the financial public sector, definition (2) excludes it after 1982.

a. A negative sign means a deficit, positive a surplus.

b. Public Sector Borrowing Requirements estimated on a cash basis.

c. PSBR excluding the public financial sector estimated on a cash basis.

d. PSBR minus the inflationary component of interest payments on the internal debt denominated in pesos.

e. Difference between revenues and expenditures other than interest payments.

f. Including privatisation revenues. Before 1991 these revenues were relatively small.

g. Obtained adding the development bank's deficit to the economic balance;

h. In 1995 privatisation revenues were negligible (0.05 percent of GDP).

Source: Banco de México (1991a to 1995a; 1992b, 242; 1996b, 294; 1996c).

Table A4. Monthly and Annual Inflation, 1969-97^a
(percentages)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
January		0.7	1.0	0.4	1.5	3.7	1.3	1.9	3.2	2.2
February	0.4	0.0	0.4	0.0	0.9	2.3	0.5	1.9	2.2	1.4
March	0.1	0.3	0.4	0.9	0.9	0.8	0.7	1.0	1.7	1.1
April	0.3	0.1	0.5	0.7	1.6	1.4	0.9	0.7	1.5	1.1
May	0.0	0.3	0.2	0.2	1.0	0.7	1.3	0.7	0.9	1.0
June	0.3	0.6	0.3	0.8	0.8	1.0	1.7	0.4	1.2	1.4
July	0.4	0.5	0.1	0.4	2.6	1.5	0.8	0.8	1.1	1.7
August	0.1	0.6	1.0	0.7	1.6	1.1	0.9	1.0	2.1	1.0
September	0.9	0.2	0.3	0.3	2.3	1.1	0.7	3.4	1.8	1.2
October	1.2	0.1	0.1	0.2	1.4	2.0	0.5	5.6	0.8	1.2
November	0.0	0.5	0.2	0.7	1.3	2.8	0.7	4.5	1.1	1.1
December	0.8	0.8	0.4	0.3	3.8	0.8	0.8	2.5	1.4	0.8
Annual ^b		4.6	5.0	5.6	21.4	20.7	11.3	27.2	20.7	16.2
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
January	3.5	4.9	3.3	5.0	10.9	6.4	7.4	8.8	8.1	15.5
February	1.5	2.3	2.5	3.9	5.4	5.3	4.2	4.4	7.2	8.3
March	1.3	2.0	2.1	3.7	4.8	4.3	3.9	4.6	6.6	5.1
April	1.0	1.7	2.2	5.4	6.3	4.3	3.1	5.2	8.7	3.1
May	1.3	1.8	1.5	5.6	4.3	3.3	2.4	5.6	7.5	1.9
June	1.0	1.8	1.4	4.8	3.8	3.6	2.5	6.4	7.2	2.0
July	1.3	2.8	1.8	5.2	5.0	3.3	3.5	5.0	8.1	1.7
August	1.4	2.1	2.1	11.2	3.9	2.8	4.4	8.0	8.2	0.9
September	1.2	1.1	1.8	5.3	3.1	3.0	4.0	6.0	6.6	0.6
October	1.7	1.5	2.2	5.2	3.3	3.5	3.8	5.7	8.3	0.8
November	1.3	1.8	1.9	5.0	5.9	3.4	4.6	6.8	7.9	1.3
December	1.8	2.6	2.7	10.7	4.3	4.2	6.8	7.9	14.8	2.1
Annual ^b	20.0	29.8	28.7	98.8	80.8	59.2	63.7	105.7	159.2	51.7
	1989	1990	1991	1992	1993	1994	1995	1996	1997	
January	2.4	4.8	2.5	1.8	1.3	0.8	3.8	3.6	2.6	
February	1.4	2.3	1.7	1.2	0.8	0.5	4.2	2.3	1.7	
March	1.1	1.8	1.4	1.0	0.6	0.5	5.9	2.2	1.2	
April	1.5	1.5	1.0	0.9	0.6	0.5	8.0	2.8	1.1	
May	1.4	1.7	1.0	0.7	0.6	0.5	4.2	1.8	0.9	
June	1.2	2.2	1.0	0.7	0.6	0.5	3.2	1.6	0.9	
July	1.0	1.8	0.8	0.6	0.5	0.4	2.0	1.4	0.9	
August	1.0	1.7	0.7	0.6	0.5	0.5	1.7	1.3	0.9	
September	1.0	1.4	1.0	0.9	0.7	0.7	2.1	1.6	1.3	
October	1.5	1.4	1.2	0.7	0.4	0.5	2.1	1.2	0.8	
November	1.4	2.7	2.5	0.8	0.4	0.5	2.5	1.5	1.1	
December	3.4	3.2	2.4	1.4	0.8	0.9	3.3	3.2	1.4	
Annual ^b	19.7	29.9	18.8	11.9	8.0	7.1	52.0	27.7	15.7	

a. A nation-wide CPI was started in 1969. Before then a wholesale price index was calculated only in Mexico City.

b. December-December change in the CPI.

Source: 1969-78 calculated with CPI data in Banco de México(a); 1979-95 calculated with CPI data from Banco de México(d).

Table A5. Annual Inflation^a
(percentages)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
January	5.1	5.0	4.4	6.7	24.0	17.9	12.0	28.7	19.6	17.6
February	4.7	5.4	3.9	7.6	25.7	15.9	13.5	29.2	18.6	17.6
March	4.9	5.5	4.4	7.6	25.6	15.8	13.9	30.2	17.8	18.0
April	4.7	6.0	4.6	8.6	25.3	15.2	13.7	31.2	17.3	17.8
May	5.0	5.9	4.6	9.5	25.0	15.9	13.0	31.4	17.5	18.2
June	5.3	5.5	5.1	9.6	25.2	16.7	11.6	32.5	17.6	17.8
July	5.3	5.2	5.4	12.0	23.8	15.9	11.6	32.9	18.3	17.4
August	5.8	5.6	5.1	13.0	23.1	15.7	11.7	34.3	17.0	17.9
September	5.1	5.8	5.1	15.3	21.7	15.2	14.7	32.2	16.3	18.0
October	4.0	5.7	5.2	16.7	22.4	13.6	20.5	26.1	16.8	18.6
November	4.6	5.4	5.7	17.4	24.2	11.3	25.1	22.0	16.8	18.9
December	4.6	5.0	5.6	21.4	20.7	11.3	27.2	20.7	16.2	20.0
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
January	21.6	27.8	30.8	110.1	73.4	60.8	65.9	104.3	176.8	34.6
February	22.7	28.0	32.7	112.9	73.3	59.0	66.4	109.8	179.7	25.9
March	23.5	28.1	34.7	115.4	72.3	58.4	67.6	113.7	175.8	21.1
April	24.4	28.7	38.9	117.2	69.1	56.5	71.1	120.9	161.4	19.2
May	24.8	28.6	44.5	114.6	67.4	55.1	76.4	125.0	147.8	18.5
June	26.0	27.8	49.4	112.5	67.1	53.4	83.2	126.7	135.8	17.6
July	27.9	26.6	54.4	112.1	64.5	53.7	85.8	133.4	121.8	16.8
August	28.7	26.5	68.2	98.1	62.8	56.0	92.3	133.9	106.9	16.8
September	28.5	27.4	73.9	93.9	62.7	57.6	96.0	135.2	95.2	17.3
October	28.2	28.4	79.0	90.4	63.0	58.0	99.6	141.0	81.6	18.1
November	28.8	28.6	84.5	91.9	59.2	59.8	103.7	143.6	70.5	18.2
December	29.8	28.7	98.9	80.8	59.2	63.7	105.7	159.2	51.7	19.7
	1990	1991	1992	1993	1994	1995	1996	1997		
January	22.5	27.1	17.9	11.3	7.5	10.2	51.7	26.4		
February	23.6	26.5	17.3	10.9	7.2	14.3	48.0	25.6		
March	24.4	26.0	16.8	10.4	7.1	20.4	43.7	24.5		
April	24.4	25.5	16.6	10.1	7.0	29.4	37.0	22.3		
May	24.9	24.5	16.3	10.0	6.9	34.2	33.9	21.2		
June	26.1	23.1	15.8	9.9	6.9	37.7	31.8	20.3		
July	27.1	22.0	15.6	9.7	6.8	39.9	31.0	19.7		
August	28.1	20.8	15.5	9.6	6.7	41.6	30.6	19.2		
September	28.7	20.2	15.3	9.5	6.7	43.5	30.0	18.8		
October	28.6	19.9	14.8	9.1	6.8	45.7	29.0	18.2		
November	30.2	19.7	13.0	8.7	6.9	48.5	27.8	17.8		
December	29.9	18.8	11.9	8.0	7.1	52.0	27.7	15.7		

a. Change in the CPI accumulated during the previous 12 months.

Source: 1969-78 calculated with CPI data in Banco de México(a); 1979-95 calculated with CPI data from Banco de México(d).

Table A6. Nominal Interest Rates^a, 1969-95
(percentages)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
January	8.73	9.00	9.00	7.92	7.56	8.75	11.00	10.00	10.00	9.81
February	8.73	9.00	8.73	7.92	7.56	8.75	11.00	10.00	10.00	9.77
March	8.73	9.00	8.73	7.92	7.56	9.50	11.00	10.00	10.00	9.66
April	8.73	9.00	8.73	7.92	7.56	9.50	11.00	10.00	10.00	9.58
May	8.73	9.00	8.73	7.92	7.56	11.00	11.00	10.00	11.00	9.60
June	8.73	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	9.82
July	8.73	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	10.20
August	9.00	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	10.52
September	9.00	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	10.85
October	9.00	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	11.42
November	9.00	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	12.39
December	9.00	9.00	8.73	7.92	8.75	11.00	11.00	10.00	11.00	12.75
Average	8.84	9.00	8.75	7.92	8.25	10.38	11.00	10.00	10.67	10.53
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
January	13.41	19.71	28.87	34.16	59.57	52.87	48.07	73.80	104.79	155.67
February	13.74	19.30	28.76	36.07	61.01	50.08	49.30	75.70	104.96	153.86
March	13.93	21.38	28.55	35.16	64.13	46.16	56.47	78.47	101.79	78.33
April	14.03	22.33	28.36	38.48	62.61	46.67	58.31	80.52	99.56	54.51
May	14.21	22.34	28.08	43.52	63.08	49.94	59.60	80.46	98.49	44.81
June	14.45	21.55	28.34	51.30	62.35	50.75	65.88	84.00	98.36	33.01
July	14.89	20.91	30.73	53.01	60.95	50.75	70.44	91.11	97.33	32.48
August	15.32	21.36	33.46	55.88	57.22	50.48	72.28	94.70	95.95	32.45
September	15.58	23.42	33.84	49.72	56.20	49.48	68.74	98.37	95.47	32.45
October	15.95	24.73	33.72	43.02	54.22	47.77	66.40	106.91	96.43	32.45
November	16.85	25.81	33.29	51.26	53.80	47.68	68.80	104.11	110.67	49.92
December	17.89	27.73	33.23	57.44	53.75	49.18	74.15	105.55	133.04	51.47
Average	15.02	22.55	30.77	45.75	59.07	49.32	63.20	89.48	103.07	62.62
	1989	1990	1991	1992	1993	1994	1995	1996	1997	
January	50.62	40.28	23.93	15.84	18.30	10.75	39.23	41.57	24.60	
February	49.39	43.05	23.33	15.13	18.75	9.80	41.65	40.66	21.96	
March	48.77	45.17	22.51	11.73	17.98	10.31	71.20	43.05	22.32	
April	51.35	44.07	21.43	11.86	16.74	15.92	71.50	37.15	22.37	
May	53.94	38.00	20.15	13.10	16.34	17.44	54.71	31.07	20.59	
June	54.99	33.52	18.53	14.84	15.95	16.74	47.31	29.64	21.40	
July	47.22	31.63	18.64	16.99	14.73	17.38	39.72	31.66	19.40	
August	36.29	30.54	17.68	17.29	14.10	14.76	35.88	29.16	20.15	
September	35.69	31.58	18.72	18.63	14.12	14.15	34.33	27.79	20.51	
October	39.17	30.34	18.38	19.49	13.55	13.98	41.20	27.68	19.91	
November	39.38	26.93	17.24	18.23	13.72	14.54	54.19	28.94	22.01	
December	40.33	25.67	17.33	17.53	11.71	19.62	48.01	26.51	19.88	
Average	45.60	35.07	19.82	15.89	15.50	14.62	48.24	32.91	21.26	

a. Annualised interest rates, net of taxes, offered during that month. Rates for financial bonds (bonos financieros), 1969 to February 1974; deposits at fixed rates from 90 to 175 days, March 1974 to 1977; 3-month Treasury bills (Cetes), 1978-1995, except August-September 1986, when there were no issues, and 1-month Cetes were used.

Source: Banco de México(d).

Table A7. Real Interest Rates, 1969-97^a
(percentages)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
January		0.74	-3.15	2.52	-9.64	-29.53	-4.66	-12.68	-24.38	-15.43
February	3.73	9.00	3.08	7.92	-3.18	-16.83	3.96	-11.80	-15.68	-7.10
March	7.46	5.40	4.20	-2.55	-3.09	0.02	2.65	-2.47	-10.62	-3.83
April	4.97	7.79	2.04	-0.48	-10.82	-7.09	0.09	1.59	-7.96	-3.90
May	8.73	5.41	6.46	5.77	-4.62	1.58	-5.40	1.07	0.12	-2.74
June	4.98	1.96	5.35	-1.40	-1.68	-1.28	-9.26	4.58	-4.35	-7.06
July	3.78	3.13	7.59	2.67	-19.94	-6.70	1.11	-0.50	-2.96	-9.98
August	7.74	2.03	-3.08	-0.32	-10.44	-2.40	-0.06	-2.05	-13.03	-1.92
September	-1.78	6.63	4.31	3.74	-17.55	-2.95	1.88	-26.28	-10.12	-3.93
October	-4.99	7.81	7.61	5.81	-7.46	-12.39	4.45	-42.99	1.23	-3.44
November	9.00	2.09	6.50	-0.23	-6.49	-19.91	1.99	-35.38	-2.63	-1.44
December	-0.45	-1.14	3.27	3.79	-30.08	1.09	0.83	-18.10	-5.86	2.47
Average	3.92	4.24	3.68	2.27	-10.42	-8.03	-0.20	-12.08	-8.02	-4.86
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
January	-24.95	-32.57	-12.71	-25.29	-53.89	-27.39	-37.13	-36.83	-19.57	-54.64
February	-4.87	-9.19	-4.26	-14.02	-14.34	-19.24	-8.87	4.80	-11.01	-2.49
March	-2.43	-4.29	0.18	-12.60	-6.49	-11.81	-1.13	4.04	-6.28	-1.83
April	1.20	-0.07	-1.14	-26.33	-21.88	-11.50	9.75	-1.75	-26.66	7.12
May	-2.19	-1.24	7.12	-25.36	-1.60	1.56	20.07	-6.15	-16.66	15.53
June	1.57	-1.87	8.62	-13.80	3.77	-1.39	23.34	-12.60	-13.88	4.88
July	-1.61	-13.19	5.54	-16.72	-10.38	2.11	12.79	6.42	-22.50	8.22
August	-2.40	-5.43	4.00	-56.40	-0.66	8.03	2.76	-22.68	-23.89	18.95
September	0.17	8.24	8.05	-19.44	8.29	4.84	5.39	-1.42	-9.22	23.28
October	-5.28	4.32	2.99	-22.16	4.46	-2.21	6.36	6.39	-24.55	20.37
November	0.07	1.56	6.34	-15.77	-22.70	-1.13	-1.60	-7.32	-15.40	28.39
December	-4.83	-6.13	-3.23	-53.51	-7.23	-8.95	-20.92	-17.46	-55.52	18.04
Average	-3.80	-4.99	1.79	-25.12	-10.22	-5.59	0.90	-7.05	-20.43	7.15
	1989	1990	1991	1992	1993	1994	1995	1996	1997	
January	13.31	-20.08	-7.85	-6.48	1.31	0.65	-11.01	-7.39	-8.43	
February	26.43	8.89	0.74	-0.22	7.92	3.42	-13.54	7.07	-0.38	
March	30.47	17.19	3.69	-0.85	9.81	3.90	-13.95	10.17	6.01	
April	26.59	20.50	7.76	0.46	8.65	9.19	-31.89	-1.54	7.32	
May	30.29	12.73	6.63	4.02	8.28	10.62	-5.57	5.81	8.30	
June	34.32	2.83	5.19	5.62	7.92	9.96	0.94	7.16	9.02	
July	30.65	6.26	7.82	8.89	8.06	11.89	10.17	11.43	7.23	
August	20.95	6.63	8.23	9.17	7.47	8.09	11.00	10.62	7.90	
September	20.42	11.36	5.36	6.54	4.96	4.98	4.68	5.63	3.21	
October	16.40	10.31	2.59	9.89	8.24	7.36	10.03	10.65	8.98	
November	17.96	-7.80	-12.83	7.45	8.40	7.89	14.65	7.84	7.00	
December	-6.05	-13.89	-11.73	-0.53	1.52	7.43	0.25	-13.31	1.46	
Average	21.81	4.58	1.30	3.66	6.88	7.11	-2.02	4.51	4.80	

a. Annualised real interest rates, net of taxes, offered during that month. Annualised real interest rates, net of taxes, offered during that month.

Source: Estimated with data from Tables A4 and A6.

Table A8. Monetary Aggregates, 1950-97
(end of period, billion pesos until 1992, million pesos since 1993, and percentages)

Year	M1	Δ %	M2	Δ %	M3	Δ %	M4	Δ %
1950	6.2	-	7.6	-	7.6	-	7.6	-
1951	7.1	14.5	9.1	19.7	9.1	19.7	9.1	19.7
1952	7.5	5.6	9.5	4.4	9.5	4.4	9.5	4.4
1953	8.1	8.0	11.4	20.0	11.4	20.0	11.4	20.0
1954	9.7	19.8	12.4	8.8	12.4	8.8	12.4	8.8
1955	11.5	18.6	14.8	19.4	14.8	19.4	14.8	19.4
1956	12.8	11.3	16.1	8.8	16.1	8.8	16.1	8.8
1957	14.9	16.4	17.3	7.5	17.3	7.5	17.3	7.5
1958	15.3	2.7	18.6	7.5	18.6	7.5	18.6	7.5
1959	17.0	11.1	20.9	12.4	20.9	12.4	20.9	12.4
1960	18.3	7.6	29.1	39.2	29.1	39.2	29.1	39.2
1961	19.2	4.9	32.8	12.7	32.8	12.7	32.8	12.7
1962	21.7	13.0	38.7	18.0	38.7	18.0	38.7	18.0
1963	25.1	15.7	46.4	19.9	46.4	19.9	46.4	19.9
1964	29.2	16.3	55.5	19.6	55.5	19.6	55.5	19.6
1965	31.0	6.2	64.0	15.3	64.0	15.3	64.0	15.3
1966	34.4	11.0	77.2	20.6	77.2	20.6	77.2	20.6
1967	37.0	7.6	91.6	18.7	91.6	18.7	91.6	18.7
1968	41.7	12.7	107.1	16.9	107.1	16.9	107.1	16.9
1969	46.1	10.6	127.6	19.1	127.6	19.1	127.6	19.1
1970	50.9	10.4	150.9	18.3	150.9	18.3	150.9	18.3
1971	54.8	7.7	171.9	13.9	171.9	13.9	171.9	13.9
1972	66.4	21.2	202.6	17.9	202.6	17.9	202.6	17.9
1973	84.1	26.7	231.2	14.1	231.2	14.1	231.2	14.1
1974	101.0	20.1	273.0	18.1	273.0	18.1	273.0	18.1
1975	122.3	21.1	346.1	26.8	346.1	26.8	346.1	26.8
1976	166.0	35.7	395.4	14.2	395.4	14.2	395.4	14.2
1977	209.6	26.3	495.2	25.2	495.2	25.2	521.4	31.9
1978	275.9	31.6	640.9	29.4	643.1	29.9	704.9	35.2
1979	368.8	33.7	865.1	35.0	882.4	37.2	973.6	38.1
1980	492.1	33.4	1246.3	44.1	1285.2	45.6	1399.1	43.7
1981	656.1	33.3	1907.1	53.0	1974.9	53.7	2076.1	48.4
1982	1010.9	54.1	3264.6	71.2	3526.4	78.6	3649.0	75.8
1983	1429.8	41.4	5275.3	61.6	5690.9	61.4	6095.0	67.0
1984	2321.2	62.3	8971.0	70.1	9695.1	70.4	10389.6	70.5
1985	3570.2	53.8	13128.2	46.3	14221.8	46.7	15789.2	52.0
1986	6144.8	72.1	25525.2	94.4	28472.1	100.2	32638.0	106.7
1987	14116.2	129.7	61505.0	141.0	73868.8	159.4	84529.0	159.0
1988	22312.0	58.1	87454.0	42.2	122247.0	65.5	134317.0	58.9
1989	31392.0	40.7	125030.0	43.0	182721.0	49.5	202539.0	50.8
1990	50334.0	60.3	182779.0	46.2	258030.0	41.2	296419.0	46.4
1991	109895.0	118.3	269120.0	47.2	318223.0	23.3	387982.0	30.9
1992	126471.0	15.1	324099.0	20.4	375603.0	18.0	465024.0	19.9
1993	148911.0	17.7	370872.0	14.4	463892.0	23.5	591849.0	27.3
1994	154519.0	3.8	444704	19.9	580520	25.1	729091	23.2
1995	165367.0	7.0	616898	38.7	692737	19.3	880053	20.7
1996	232678.0	40.7	802284	30.1	920723	32.9	1166200	32.5
1997	306118.0	31.6	971350	21.1	1189759	29.2	1506680	29.2

M1 - Coins and banknotes in hands of the public plus cheque accounts in domestic currency.

M2 - M1 plus cheque accounts in foreign currency.

M3 - M2 plus short-term, up to three-month, saving instruments.

M4 - M3 plus medium and long term, over three months, saving instruments.

Source: Banco de México(d) for 1950-87; (1995a, 267) for 1988-95.

Table A9. Monetary Aggregates, 1950-97
(as a percentage of GDP)

Year	M1	M2	M3	M4	Year	M1	M2	M3	M4
1950	14.70	18.03	18.03	18.03	1974	11.07	29.92	29.92	29.92
1951	13.06	16.74	16.74	16.74	1975	10.92	30.90	30.90	30.90
1952	12.30	15.58	15.58	15.58	1976	11.84	28.20	28.20	28.20
1953	13.35	18.79	18.79	18.79	1977	11.02	26.03	26.03	27.41
1954	13.12	16.77	16.77	16.77	1978	11.42	26.53	26.63	29.18
1955	12.77	16.43	16.43	16.43	1979	11.58	27.15	27.70	30.56
1956	12.44	15.64	15.64	15.64	1980	11.01	27.88	28.75	31.30
1957	12.61	14.64	14.64	14.64	1981	10.71	31.12	32.23	33.88
1958	11.65	14.16	14.16	14.16	1982	10.32	33.32	35.99	37.24
1959	12.08	14.85	14.85	14.85	1983	8.00	29.51	31.83	34.09
1960	11.46	18.22	18.22	18.22	1984	7.88	30.44	32.90	35.25
1961	11.08	18.93	18.93	18.93	1985	7.53	27.70	30.01	33.32
1962	11.62	20.72	20.72	20.72	1986	7.73	32.09	35.80	41.04
1963	12.07	22.31	22.31	22.31	1987	7.30	31.82	38.21	43.73
1964	11.89	22.61	22.61	22.61	1988	5.71	22.40	31.31	34.40
1965	11.59	23.93	23.93	23.93	1989	5.72	22.78	33.29	36.90
1966	11.57	25.98	25.98	25.98	1990	6.81	24.74	34.92	40.12
1967	11.38	28.18	28.18	28.18	1991	11.58	28.35	33.53	40.88
1968	11.59	29.76	29.76	29.76	1992	11.24	28.80	33.38	41.32
1969	11.59	32.08	32.08	32.08	1993	11.85	29.52	36.93	47.11
1970	11.46	33.97	33.97	33.97	1994	10.86	31.24	40.79	51.22
1971	11.16	35.01	35.01	35.01	1995	8.99	33.52	37.64	47.82
1972	11.70	35.70	35.70	35.70	1996	9.28	31.99	36.71	46.50
1973	12.06	33.16	33.16	33.16	1997	9.60	30.47	37.33	47.27

M1 - Coins and banknotes in hands of the public plus cheque accounts in domestic currency.

M2 - M1 plus cheque accounts in foreign currency.

M3 - M2 plus short-term, up to three-month, saving instruments.

M4 - M3 plus medium and long term, over three months, saving instruments.

Source: Calculated with data from Tables A1 and A8.

Table A10. Annual Growth of Monetary Aggregates, 1970-97
(percentage growth with respect to the same month of the previous year)

	1970		1971		1972		1973		1974	
	M1	M4	M1	M4	M1	M4	M1	M4	M1	M4
January	12.8	20.4	9.0	18.0	11.2	13.3	20.0	19.0	24.4	11.8
February	8.6	19.0	9.4	18.1	11.3	13.4	21.7	19.2	23.3	11.2
March	10.1	19.6	6.0	16.7	11.7	13.0	23.8	19.9	23.8	11.9
April	9.7	19.0	9.3	17.4	9.6	12.4	26.4	19.6	21.5	13.0
May	9.7	19.3	7.2	16.7	12.2	13.1	25.4	19.2	23.3	13.8
June	9.1	19.3	7.2	16.4	14.5	14.7	24.8	16.9	24.1	15.9
July	9.9	19.3	7.1	15.8	14.2	15.0	26.3	17.0	21.3	15.7
August	9.6	18.2	7.6	16.0	15.9	16.4	26.4	15.9	20.2	14.6
September	10.0	18.4	6.3	15.1	17.5	16.9	26.7	15.3	21.8	15.6
October	10.9	18.6	5.3	13.9	19.5	18.0	26.0	14.0	19.9	15.9
November	12.4	18.5	6.2	13.9	19.3	17.8	29.2	14.5	17.5	15.9
December	10.4	18.3	7.7	13.9	21.2	17.9	26.7	14.1	20.1	18.1
	1975		1976		1977		1978		1979	
	M1	M4	M1	M4	M1	M4	M1	M4	M1	M4
January	18.9	19.5	22.1	26.8	37.0	15.5	27.5	32.5	32.4	35.8
February	19.6	21.6	21.5	25.4	38.5	16.7	25.4	33.0	35.2	36.2
March	21.5	22.0	18.2	23.8	38.4	17.8	28.2	34.0	35.8	37.3
April	21.0	22.7	21.1	22.8	36.1	17.8	27.7	35.0	39.0	37.3
May	22.1	23.5	20.5	21.5	35.4	17.6	30.2	37.3	36.2	38.5
June	22.3	24.1	17.6	19.4	35.5	19.1	33.5	37.9	35.5	36.8
July	20.9	24.0	21.4	18.8	33.8	20.0	33.8	38.6	35.2	37.5
August	22.4	25.4	17.5	17.5	37.5	22.4	33.6	38.3	35.0	38.2
September	19.3	24.9	29.3	19.4	27.4	21.2	34.9	38.7	33.6	37.8
October	21.8	27.5	34.3	19.2	25.8	21.9	33.0	38.2	32.1	38.4
November	21.1	28.1	41.3	14.0	20.9	28.2	29.8	37.0	36.3	39.6
December	21.1	26.8	35.7	14.2	26.3	31.9	31.6	35.2	33.7	38.1
	1980		1981		1982		1983		1984	
	M1	M4	M1	M4	M1	M4	M1	M4	M1	M4
January	31.4	37.5	34.0	42.7	34.3	50.8	52.3	76.8	41.8	68.8
February	31.2	37.3	33.0	42.7	40.0	71.0	44.6	56.0	44.2	71.4
March	32.4	37.8	34.0	44.5	38.3	65.8	40.5	58.0	50.3	74.4
April	27.2	36.7	40.2	48.6	34.4	57.8	40.6	64.1	57.2	75.5
May	30.1	36.8	39.2	48.6	32.6	54.6	42.6	68.2	57.4	75.1
June	34.3	39.9	33.9	48.4	31.3	53.2	46.1	72.5	57.4	73.9
July	34.3	39.5	32.9	49.9	33.0	53.9	48.4	76.1	55.7	70.0
August	34.5	38.8	32.4	50.4	44.0	70.5	40.8	62.0	51.0	69.5
September	34.5	39.4	31.2	51.9	52.2	71.8	33.4	61.8	54.9	69.0
October	35.4	39.3	32.9	51.5	54.5	72.3	34.2	65.0	56.3	67.3
November	35.5	40.6	32.5	50.3	65.4	75.6	28.0	65.3	57.5	67.4
December	33.4	43.7	33.3	48.4	54.1	75.8	41.4	67.0	62.3	70.5

Table continues...

Table A10. Annual Growth of Monetary Aggregates, 1970-97
(percentage growth with respect to the same month of the previous year)

	1985		1986		1987		1988		1989	
	M1	M4	M1	M4	M1	M4	M1	M4	M1	M4
January	61.3	68.0	50.6	52.7	77.3	115.1	131.9	151.1	50.7	57.1
February	62.7	64.3	50.4	54.3	80.7	125.3	143.0	153.5	40.0	47.7
March	58.5	63.2	59.3	59.0	81.0	129.5	140.2	153.7	32.8	38.9
April	51.7	61.4	55.0	60.8	95.5	139.5	145.7	146.8	23.7	35.6
May	52.9	61.2	56.5	63.4	97.8	145.3	134.1	136.2	26.4	36.0
June	56.2	59.0	58.6	65.5	99.6	157.0	137.5	120.3	19.7	39.3
July	56.9	60.5	56.7	68.6	104.5	161.5	133.5	102.0	22.4	47.5
August	58.6	60.0	57.3	74.0	122.9	163.0	105.7	89.4	22.0	48.5
September	67.4	60.6	49.7	80.2	122.4	163.1	103.0	80.2	25.4	48.6
October	57.4	57.0	57.4	91.6	131.4	162.1	93.9	73.6	25.8	49.3
November	56.8	54.3	64.2	99.2	140.9	155.1	74.1	71.0	25.9	48.3
December	53.8	52.0	72.1	106.7	129.7	159.0	58.1	58.9	40.1	50.5
	1990		1991		1992		1993		1994	
	M1	M4	M1	M4	M1	M4	M1	M4	M1	M4
January	38.2	47.8	69.3	47.4	118.8	29.7	17.2	23.5	19.5	24.0
February	40.1	47.7	68.6	47.8	110.4	27.2	20.1	23.2	18.6	26.0
March	41.7	48.9	72.6	46.1	98.5	24.8	19.2	24.8	20.3	25.0
April	49.6	49.9	66.6	46.4	97.6	22.3	16.9	26.0	14.5	17.7
May	50.3	50.6	71.0	45.6	93.0	20.2	16.7	26.5	12.4	17.6
June	52.1	48.1	66.0	42.7	91.8	19.8	18.3	28.5	10.6	17.7
July	42.8	45.7	66.7	40.8	94.6	19.9	20.1	27.5	10.2	17.6
August	45.9	47.1	78.0	39.8	81.9	17.0	19.5	29.5	9.9	19.0
September	45.7	47.2	97.2	35.5	55.9	20.1	21.8	29.8	10.2	19.0
October	60.3	47.0	140.1	34.7	19.9	19.1	14.9	28.4	7.5	19.4
November	68.9	50.2	128.9	33.6	16.3	17.2	13.5	26.1	10.1	20.3
December	63.2	46.6	119.8	30.9	12.7	19.9	17.7	27.3	3.8	23.2
	1995		1996		1997					
	M1	M4	M1	M4	M1	M4				
January	-4.1	23.0	15.0	22.2	39.0	34.7				
February	-8.7	18.8	21.9	25.6	38.9	35.4				
March	-13.8	21.2	35.2	25.7	39.6	34.1				
April	-11.3	20.6	38.9	32.8	38.4	35.1				
May	-11.6	22.7	41.8	32.1	39.2	34.5				
June	-10.9	22.0	44.6	31.7	38.5	35.6				
July	-8.0	21.1	41.0	33.9	39.5	33.8				
August	-7.1	21.1	41.1	33.3	41.9	33.5				
September	-6.2	21.6	45.1	33.4	35.9	33.3				
October	-0.2	23.8	37.6	31.1	37.4	33.7				
November	0.8	25.6	37.9	30.3	37.2	32.6				
December	7.0	20.7	40.7	32.5	31.6	29.2				

Source: Banco de México(d).

Table A11. Terms of Trade Index, 1960-93^a
(1971=100)

Year	(1)	(2)	Year	(1)	(2)	Year	(1)	(2)
1960	87.7	87.2	1972	103.2	101.7	1983	98.2	69.4
1961	89.5	88.2	1973	114.8	120.8	1984	96.3	70.8
1962	84.0	82.1	1974	109.8	81.5	1985	91.1	72.4
1963	89.6	88.2	1975	97.5	73.6	1986	65.6	52.9
1964	85.7	84.6	1976	112.7	119.7	1987	72.5	67.0
1965	83.9	83.6	1977	112.0	123.6	1988	65.5	60.5
1966	85.0	85.5	1978	103.9	113.9	1989	68.9	64.5
1967	83.9	84.0	1979	113.1	94.3	1990	70.3	67.9
1968	89.3	91.1	1980	126.5	112.8	1991	65.5	65.0
1969	88.0	92.2	1981	123.3	126.8	1992	65.2	63.9
1970	96.7	100.1	1982	107.5	86.1	1993	62.5	62.1
1971	100.0	100.0						

(1) Not adjusted by international interest rates; (2) Adjusted.

Source: Banco de México (1993a, 428).

Table A12. Terms of Trade Index, 1970-97^a
(1980=100)

	1970	1971	1972	1973	1974	1975	1976	1977
January	77.23	76.33	83.05	84.78	99.84	72.62	85.35	85.24
February	77.39	76.40	83.29	85.56	100.84	72.38	85.76	91.14
March	77.88	78.09	81.00	87.75	97.28	72.10	85.15	99.59
April	77.15	77.84	80.96	88.65	95.79	73.89	86.88	98.12
May	78.24	79.39	81.34	91.22	95.71	75.68	88.78	95.01
June	78.15	80.55	81.04	91.15	90.82	78.86	89.81	90.64
July	76.73	77.87	82.70	93.07	86.47	78.80	89.66	88.52
August	75.42	79.52	82.51	90.60	80.47	79.49	87.41	83.61
September	75.74	78.73	81.48	90.64	78.49	79.79	90.47	83.89
October	74.45	80.00	79.71	94.32	76.60	80.36	92.60	82.51
November	74.67	81.69	81.19	95.69	76.35	78.76	91.92	81.57
December	74.65	82.60	81.31	95.08	72.50	82.53	94.28	82.95
	1978	1979	1980	1981	1982	1983	1984	1985
January	82.07	81.91	103.42	106.34	89.80	83.59	76.51	74.78
February	83.69	81.94	102.26	105.43	89.70	77.45	76.95	74.40
March	82.74	81.24	102.24	104.96	84.63	77.57	76.71	74.12
April	82.64	85.67	100.00	101.45	84.27	77.62	76.05	73.55
May	82.13	85.89	101.06	100.97	84.22	77.32	76.02	73.38
June	82.45	87.75	100.14	93.00	84.14	77.16	75.98	70.95
July	79.19	91.89	98.03	96.50	83.89	76.32	76.48	70.44
August	80.47	91.09	98.78	92.41	85.27	76.89	76.08	70.13
September	83.00	91.58	98.85	92.35	84.46	76.39	76.28	70.13
October	82.49	97.65	98.61	91.59	83.82	77.12	75.51	70.23
November	82.30	97.37	97.73	92.60	83.83	77.00	75.29	71.22
December	81.54	96.76	99.45	92.69	81.60	76.87	75.44	70.75
	1986	1987	1988	1989	1990	1991	1992	1993
January	64.22	54.59	53.13	51.26	53.14	51.82	47.48	48.02
February	54.20	53.98	51.43	52.20	52.91	48.54	47.98	48.74
March	50.02	55.17	51.36	53.07	50.72	49.46	48.75	48.78
April	48.78	56.20	52.47	54.47	48.23	50.57	49.28	49.23
May	48.85	57.19	52.04	53.45	47.93	50.92	49.88	48.74
June	45.98	57.26	50.05	52.15	46.13	50.10	50.40	46.39
July	44.60	58.31	49.35	51.02	49.28	50.50	50.54	46.27
August	49.29	56.02	48.91	50.08	58.83	49.56	50.33	46.38
September	50.88	56.40	47.84	50.52	65.24	50.53	50.33	46.30
October	50.92	56.30	46.71	51.39	64.33	51.25	51.00	46.18
November	49.84	54.78	48.08	51.12	61.70	49.51	49.38	45.85
December	52.48	51.83	50.38	52.59	56.79	46.87	49.18	45.31
	1994	1995	1996	1997				
January	46.36	51.07	48.96	51.08				
February	45.28	50.92	49.45	50.57				
March	46.36	50.36	51.57	50.34				
April	47.90	51.59	51.39	49.21				
May	49.41	50.79	49.93	50.03				
June	50.91	49.33	49.56	49.25				
July	52.98	48.34	49.41	48.87				
August	51.55	48.43	49.56	49.14				
September	51.11	48.68	50.19	49.06				
October	51.34	48.44	51.73	50.26				
November	51.40	49.19	51.52	49.23				
December	51.52	49.97	51.46	48.32				

a. Not adjusted by international interest rates.
Source: Banco de México, Internet database.

Table A13. External Trade, 1950-97
(million dollars)

Year	Without Maquiladoras			With Maquiladoras		
	Exports ^a	Imports ^a	Trade Bal.	Exports ^a	Imports ^a	Trade Bal.
1950	493.4	555.7	-62.3			
1951	591.5	822.2	-230.7			
1952	625.3	807.4	-182.1			
1953	559.1	807.5	-248.4			
1954	615.8	788.7	-172.9			
1955	738.6	883.7	-145.1			
1956	807.2	1071.6	-264.4			
1957	706.1	1155.2	-449.1			
1958	709.1	1128.7	-419.6			
1959	723.0	1006.6	-283.6			
1960	738.7	1186.4	-447.7			
1961	803.5	1138.6	-335.1			
1962	906.5	1143.0	-236.5			
1963	944.1	1239.7	-295.6			
1964	1026.7	1493.0	-466.3			
1965	1126.4	1559.6	-433.2			
1966	1169.9	1602.0	-432.1			
1967	1102.9	1736.8	-633.9			
1968	1165.0	1917.3	-752.3			
1969	1341.8	1988.8	-647.0			
1970	1289.6	2328.3	-1038.7			
1971	1365.6	2255.5	-889.9			
1972	1666.4	2762.1	-1095.7			
1973	2071.6	3892.5	-1820.9			
1974	2853.2	6148.6	-3295.4			
1975	3062.4	6699.4	-3637.1			
1976	3655.5	6299.9	-2644.4			
1977	4649.7	5704.5	-1054.8			
1978	6063.2	7917.5	-1854.3			
1979	8817.6	11979.7	-3162.1			
1980	15511.9	18896.6	-3384.7	18031.0	21089.4	-3058.4
1981	20102.1	23948.4	-3846.3	23307.4	27184.2	-3876.8
1982	21229.7	14437.0	6792.7	24055.2	17010.6	7044.6
1983	22312.0	8550.9	13761.1	25953.1	11848.3	14104.8
1984	24196.0	11254.3	12941.7	29100.3	15916.2	13184.1
1985	21663.8	13212.2	8451.6	26757.2	18359.2	8398.0
1986	16030.9	11432.4	4598.5	21803.6	16783.9	5019.7
1987	20656.2	12222.9	8433.3	27599.5	18812.4	8787.1
1988	20565.1	18898.2	1666.9	30691.6	28082.0	2609.6
1989	22764.9	23409.7	-644.8	35171.0	34766.0	405.0
1990	26838.4	31271.9	-4433.5	40710.9	41593.2	-882.3
1991	26855.0	38184.0	-11329.0	42687.5	49966.6	-7279.1
1992	27516.0	48192.0	-20676.0	46195.6	62129.4	-15933.8
1993	30032.9	48923.6	-18890.7	51886.0	65366.5	-13480.5
1994	34612.9	58879.7	-24266.8	60882.2	79345.9	-18463.7
1995	48438.2	46274.3	2163.9	79541.6	72453.0	7088.6
1996	59079.4	58964.1	115.3	95999.8	89468.8	6531.0
1997	65265.4	73475.8	-8210.4	110431.4	109807.8	623.6

a. Does not include exports or imports from the in-bond (maquiladora) industry.

Source: Banco de México (1982a to 1995a; 1992b to 1994b; d).

Table A14. External Accounts, 1950-97
(million dollars)

Year	Current Account	As % Of GDP	NICA ^b	As % of GDP	Capital Account	As % Of GDP
1950	163.1	3.35	180.6	3.71	53.0	1.09
1951	-203.3	-3.23	-183.8	-2.92	55.2	0.88
1952	-213.1	-3.02	-190.6	-2.70	35.4	0.50
1953	-204.4	-2.91	-180.3	-2.57	35.2	0.50
1954	-227.5	-3.49	-204.3	-3.14	28.9	0.44
1955	1.7	0.02	33.2	0.46	163.2	2.26
1956	-183.1	-2.22	-147.8	-1.79	82.6	1.00
1957	-359.9	-3.80	-319.7	-3.38	163.7	1.73
1958	-385.5	-3.67	-337.6	-3.21	98.7	0.94
1959	-232.1	-2.06	-174.8	-1.55	114.8	1.02
1960	-516.0	-4.04	-448.6	-3.51	119.4	0.93
1961	-435.1	-3.14	-357.0	-2.57	59.7	0.43
1962	-358.6	-2.40	-264.3	-1.77	76.4	0.51
1963	-380.2	-2.28	-278.4	-1.67	-42.7	-0.26
1964	-597.8	-3.04	-483.0	-2.46	116.3	0.59
1965	-608.8	-2.84	-480.1	-2.24	367.2	1.72
1966	-600.3	-2.52	-429.0	-1.80	361.9	1.52
1967	-821.3	-3.16	-604.9	-2.32	272.2	1.05
1968	-1020.8	-3.54	-740.4	-2.57	266.6	0.93
1969	-938.5	-2.95	-608.9	-1.91	166.7	0.52
1970	-1318.0	-3.71	-901.0	-2.53	595.2	1.67
1971	-1212.0	-3.08	-769.5	-1.96	524.8	1.34
1972	-1337.7	-2.94	-856.1	-1.88	-133.8	-0.29
1973	-1769.5	-3.17	-1121.8	-2.01	527.3	0.94
1974	-3456.2	-4.73	-2482.9	-3.40	1534.1	2.10
1975	-4502.8	-5.02	-3066.2	-3.42	1653.8	1.84
1976	-3670.3	-4.04	-1946.5	-2.14	1480.6	1.63
1977	-2002.2	-2.38	-28.2	-0.03	-1712.4	-2.03
1978	-3151.4	-2.97	-579.7	-0.55	-833.7	-0.79
1979	-4700.8	-3.36	-1003.7	-0.72	844.6	0.60
1980	-10434.1	-5.36	-4287.2	-2.20	11377.0	5.84
1981	-16240.6	-6.16	-6755.3	-2.56	26597.2	10.08
1982	-5890.1	-3.23	6312.9	3.47	9995.7	5.49
1983	5859.6	4.70	15962.6	12.79	339.3	0.27
1984	4183.4	2.51	15898.8	9.52	1305.8	0.78
1985	799.5	0.49	10955.4	6.78	-316.4	-0.20
1986	-1373.5	-1.06	6968.6	5.40	2715.5	2.10
1987	4239.0	2.93	12335.7	8.53	-1188.8	-0.82
1988	-2375.6	-1.32	6263.1	3.47	-1163.1	-0.65
1989	-5821.2	-2.65	3456.4	1.58	3175.9	1.45
1990	-7451.0	-2.88	1771.0	0.68	8297.2	3.20
1991	-14646.7	-4.67	-5431.5	-1.73	24507.5	7.82
1992	-24438.5	-6.73	-14827.9	-4.08	26418.8	7.27
1993	-23399.2	-5.80	-12464.8	-3.09	32482.3	8.06
1994	-29662.0	-7.03	-17855.1	-4.23	14584.2	3.46
1995	-1576.7	-0.55	11998.7	4.18	15405.6	5.37
1996	-2330.3	-0.70	11030.7	3.31	4069.2	1.22
1997	-7448.4	-1.86	4987.8	1.24	15762.7	3.93

a. Does not include exports or imports from the in-bond (maquiladora) industry.

b. Non-interest current account balance.

Source: Banco de México Internet database and INEGI (1990, 728-732).

Table A15. Exports^a, 1972-95
(million dollars)

	1972	%	1973	%	1974	%	1975	%
Total	1666.4	100.0	2071.6	100.0	2853.2	100.0	3062.4	100.0
Agricultural	787.1	47.2	903.7	43.6	802.6	28.1	814.8	26.6
Mining	180.4	10.8	183.2	8.8	341.8	12.0	277.7	9.1
Petroleum	21.8	1.3	24.8	1.2	123.2	4.3	460.1	15.0
Manufacturing	677.1	40.6	959.9	46.3	1585.6	55.6	1509.8	49.3
	1976	%	1977	%	1978	%	1979	%
Total	3655.5	100.0	4649.8	100.0	6063.1	100.0	8817.7	100.0
Agricultural	1175.2	32.1	1312.9	28.2	1501.7	24.8	1778.7	20.2
Mining	209.2	5.7	216.9	4.7	212.8	3.5	337.8	3.8
Petroleum	562.9	15.4	1037.3	22.3	1863.2	30.7	3975.0	45.1
Manufacturing	1708.2	46.7	2082.7	44.8	2485.4	41.0	2726.2	30.9
	1980	%	1981	%	1982	%	1983	%
Total	15511.9	100.0	20102.1	100.0	21229.7	100.0	22312.0	100.0
Agricultural	1527.9	9.8	1482.4	7.4	1233.3	5.8	1188.5	5.3
Mining	512.5	3.3	686.0	3.4	501.6	2.4	523.7	2.3
Petroleum	10441.3	67.3	14573.1	72.5	16477.2	77.6	16017.2	71.8
Manufacturing	3030.1	19.5	3360.5	16.7	3017.6	14.2	4582.7	20.5
	1984	%	1985	%	1986	%	1987	%
Total	24196.0	100.0	21663.8	100.0	16031.0	100.0	20656.2	100.0
Agricultural	1460.8	6.0	1408.9	6.5	2098.4	13.1	1543.0	7.5
Mining	539.1	2.2	510.3	2.4	509.7	3.2	567.0	2.7
Petroleum	16601.3	68.6	14766.6	68.2	6307.2	39.3	8629.8	41.8
Manufacturing	5594.8	23.1	4978.0	23.0	7115.7	44.4	9907.4	48.0
	1988	%	1989	%	1990	%	1991	%
Total	20565.1	100.0	22842.1	100.0	26950.3	100.0	26855.0	100.0
Agricultural	1670.3	8.1	1753.9	7.7	2162.4	8.0	2373.0	8.8
Mining	660.3	3.2	604.8	2.6	616.9	2.3	547.0	2.0
Petroleum	6711.2	32.6	7876.0	34.5	10103.7	37.5	8166.0	30.4
Manufacturing	11523.3	56.0	12607.5	55.2	14067.3	52.2	15769.0	58.7
	1992	%	1993	%	1994	%	1995	%
Total	27516.0	100.0	30033.9	100.0	34612.9	100.0	48439.0	100.0
Agricultural	2112.0	7.7	2504.2	8.3	2678.4	7.7	4016.0	8.3
Mining	356.0	1.3	278.2	0.9	356.7	1.0	545.0	1.1
Petroleum	8307.0	30.2	7418.4	24.7	7445.0	21.5	8423.0	17.4
Manufacturing	16740.0	60.8	19832.1	66.0	24132.8	69.7	35455.0	73.2
	1996	%	1997	%				
Total	59079.0	100.0	65266.0	100.0				
Agricultural	3592.0	6.1	3828.0	5.9				
Mining	449.0	0.8	478.0	0.7				
Petroleum	11654.0	19.7	11323.0	17.3				
Manufacturing	43384.0	73.4	49637.0	76.1				

a. Not including exports from the in-bond plants (maquiladora industry).

Source: Banco de México(a) for 1972-75 and 1991-95; (d) for 1976-90.

Table A16. Export Prices of the Mexican Barrel of Oil, 1980-97
(dollars)

	1980			1981			1982		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	28.17	29.17	25.37	36.31	38.50	34.49	30.92	34.75	26.81
February	30.84	32.00	27.99	36.21	38.50	34.50	30.98	34.90	26.60
March	30.51	31.99	28.00	35.95	37.56	35.02	28.81	32.89	25.08
April	30.44	31.99	28.00	34.19	38.20	32.24	28.08	32.50	25.00
May	30.71	32.66	28.00	34.45	38.33	31.99	28.11	32.50	25.00
June	30.92	33.50	28.00	30.80	34.33	28.03	28.40	32.45	25.00
July	31.88	34.49	29.00	33.03	37.06	30.19	28.40	32.36	25.07
August	32.18	34.49	28.99	31.22	33.98	28.50	28.20	32.50	25.00
September	31.40	34.50	29.00	31.21	33.78	28.69	28.37	32.41	25.08
October	31.43	34.50	29.00	31.11	33.83	28.61	28.66	32.50	25.00
November	31.62	34.50	29.00	31.90	36.46	27.78	28.55	32.50	25.33
December	32.50	35.79	30.38	31.72	34.21	29.05	28.23	32.42	25.01
	1983			1984			1985		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	28.41	32.40	25.02	26.66	29.00	25.00	26.51	29.00	25.49
February	28.43	32.43	25.01	26.72	29.00	25.00	26.36	27.75	25.50
March	25.73	29.00	23.00	26.68	29.00	25.00	26.47	27.75	25.50
April	25.75	29.00	23.00	26.65	29.00	25.00	26.50	27.75	25.50
May	25.51	29.00	23.00	26.98	29.00	25.46	26.49	27.75	25.50
June	25.58	29.00	23.00	26.93	29.00	25.50	25.19	26.77	23.95
July	25.77	29.00	23.00	27.02	29.00	25.50	24.55	26.56	23.19
August	26.05	29.00	23.90	26.74	29.00	25.50	24.62	26.59	23.08
September	26.28	29.00	24.00	26.90	29.00	25.50	24.56	26.54	23.18
October	26.71	29.00	24.97	26.92	29.00	25.50	24.86	26.57	23.15
November	26.70	29.00	25.00	26.82	29.05	25.45	24.71	27.31	22.77
December	26.64	29.00	25.00	26.87	29.00	25.50	23.73	26.14	21.80
	1986			1987			1988		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	19.68	21.03	10.56	15.06	16.92	13.75	13.34	15.22	11.87
February	14.26	15.07	13.23	14.56	16.11	13.81	12.43	14.46	11.07
March	10.68	11.61	9.26	15.76	17.73	15.10	12.65	14.44	11.39
April	10.45	11.78	8.98	16.60	17.89	15.85	13.87	15.55	12.76
May	10.48	12.60	8.90	17.13	18.14	16.52	13.71	15.33	12.63
June	9.30	11.08	8.82	17.33	18.49	16.62	12.40	13.88	11.27
July	8.54	10.23	7.75	18.04	19.34	17.19	12.27	13.71	11.17
August	11.35	13.23	10.21	16.66	17.97	17.39	12.15	13.30	11.11
September	11.83	13.57	10.55	16.20	17.73	15.38	11.01	12.15	10.03
October	11.80	13.43	10.53	16.26	17.83	15.27	9.93	11.20	8.70
November	12.02	13.70	10.67	15.11	16.82	13.87	10.53	11.55	9.64
December	13.67	15.52	12.17	13.24	15.31	11.70	12.31	13.63	10.90

Table continues...

Table A16. Export Prices of the Mexican Barrel of Oil, 1980-97
(dollars)

	1989			1990			1991		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	13.67	15.36	12.17	16.65	18.90	14.95	16.45	20.30	13.80
February	14.18	16.09	12.60	15.78	18.47	13.86	13.20	16.33	10.85
March	15.62	17.42	14.07	14.24	16.75	12.28	13.43	16.75	11.37
April	16.93	18.75	15.32	12.40	14.92	10.94	14.55	17.90	12.07
May	16.06	17.11	14.91	12.08	14.59	10.47	14.31	17.62	11.99
June	15.83	17.18	14.63	11.27	13.69	9.83	14.06	17.28	11.93
July	15.41	16.68	14.36	14.49	16.60	13.20	14.99	18.15	12.85
August	14.86	16.34	13.91	23.07	26.49	20.84	14.95	18.38	12.72
September	15.48	16.85	14.42	29.11	33.99	26.25	15.64	19.26	13.36
October	15.91	17.46	14.93	28.43	33.32	25.48	16.49	20.37	14.09
November	16.29	17.53	15.14	26.11	29.83	23.60	14.33	18.96	11.64
December	17.20	19.02	15.88	21.62	25.18	19.41	12.46	16.16	10.08
	1992			1993			1994		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	12.24	15.90	10.08	13.55	16.54	11.80	11.70	13.36	10.23
February	12.37	15.99	10.22	14.27	17.33	12.51	11.34	12.95	9.95
March	12.93	16.45	10.93	14.51	17.65	12.81	11.64	13.19	10.31
April	14.32	17.67	12.26	14.67	17.68	12.87	13.32	14.86	11.94
May	15.69	18.73	13.88	14.20	17.12	12.22	14.31	16.05	12.82
June	16.48	19.64	14.72	13.07	16.23	11.11	15.26	16.81	14.01
July	16.29	19.39	14.69	12.83	15.23	11.02	15.77	17.45	14.53
August	16.13	18.86	14.59	12.91	15.19	11.15	14.26	16.29	12.76
September	16.58	19.35	15.00	12.98	15.20	11.28	13.88	16.10	12.53
October	16.46	19.06	15.05	13.14	15.37	11.22	14.93	16.12	13.83
November	15.14	18.07	13.50	11.67	13.73	9.72	15.33	16.93	14.10
December	13.68	16.95	12.00	10.67	12.52	9.10	14.85	15.96	13.83
	1995			1996			1997		
	Blend	Istmo	Maya	Blend	Istmo	Maya	Blend	Istmo	Maya
January	15.49	16.67	14.28	16.17	17.40	14.64	20.52	23.13	18.06
February	15.93	17.20	14.80	16.50	17.36	15.10	18.43	20.10	15.71
March	16.01	17.07	15.12	18.27	20.02	16.68	16.47	18.45	14.48
April	17.32	18.45	16.03	19.24	20.34	17.46	15.80	16.92	14.26
May	17.20	18.02	16.05	17.61	18.47	16.07	16.61	18.14	14.83
June	15.86	16.90	14.61	17.12	18.45	15.56	15.32	17.30	13.80
July	14.47	15.65	13.26	17.71	19.11	15.98	15.77	17.20	14.16
August	14.84	16.00	13.45	18.80	19.69	17.15	16.27	17.53	14.82
September	14.96	16.24	13.36	20.85	21.88	19.31	16.09	17.75	14.75
October	14.82	15.68	12.99	22.20	22.87	20.56	17.36	18.89	15.70
November	15.31	16.28	13.58	20.84	21.92	18.91	16.06	17.91	14.32
December	16.40	17.28	15.12	21.66	23.35	19.32	13.43	16.25	11.44

Source: INEGI Internet database.

Table A17. Peso-Dollar Exchange Rates, 1950-95
(pesos per U.S. dollar)

Year	Market Rate		Controlled Rate	
	End of Period	Average	End of Period	Average
1950-53 ^a	8.6500	8.6500	-	-
1954 ^{ab}	12.4906	11.3542	-	-
1955-75 ^b	12.4906	12.4906	-	-
1976	19.9500	15.4442	-	-
1977	22.7363	22.5790	-	-
1978	22.7243	22.7670	-	-
1979	22.8025	22.8054	-	-
1980	23.2561	22.9511	-	-
1981	26.2289	24.5140	-	-
1982	148.50	57.1757	96.4800	57.4431
1983	161.35	150.2942	143.9300	120.1675
1984	209.97	185.1890	192.5600	167.7697
1985	447.50	310.2784	371.5000	256.9579
1986	915.00	637.8754	923.0000	611.3529
1987	2227.50	1405.8091	2198.5000	1366.7280
1988	2297.50	2289.5833	2257.0000	2250.2778
1989	2680.75	2483.3770	2637.0000	2453.1692
1990	2943.15	2838.3572	2939.4000	2807.2975
1991	3071.00	3015.6929	3065.4000	3006.7923
1992	3115.40	3094.6600	-	-
1993 ^c	3.1059	3.1153	-	-
1994	5.3250	3.3741	-	-
1995	7.6420	6.4049	-	-
1996	7.8509	7.5980	-	-
1997	8.0833	7.9185	-	-

a. The 8.65 pesos per dollar parity was fixed from 17 June, 1949 to April 18, 1954.

b. The 12.4906 (12.50 to the public) pesos per dollar parity was fixed from April 19, 1954 to August 31, 1976.

c. New pesos per dollar since 1993.

Source: Banco de México (d) for 1950-90; (1997b, 279) for 1991-95; 1954 average market rate estimated by the author.

Table A18. Peso Real Exchange Rate, 1970-95
(1980=100)

Year	(1)	(2)	Year	(1)	(2)	Year	(1)	(2)
1970	107.80	n.a.	1979	89.46	n.a.	1988	63.24	47.42
1971	106.94	n.a.	1980	100.00	100.00	1989	69.30	53.76
1972	103.16	n.a.	1981	115.72	115.10	1990	64.71	54.86
1973	101.32	n.a.	1982	86.33	75.73	1991	66.10	58.69
1974	111.25	n.a.	1983	79.26	51.10	1992	66.96	65.04
1975	114.32	n.a.	1984	93.26	55.70	1993	67.38	69.06
1976	104.36	n.a.	1985	96.80	55.52	1994	59.98	66.76
1977	83.31	n.a.	1986	65.12	40.69	1995	37.27	39.36
1978	86.94	n.a.	1987	55.91	38.66	1996	41.25	37.14
						1997	47.64	42.16

(1) Estimated on the basis of consumer prices for 133 (1970-80) and 125 (1981-97) countries weighted by GDP.

(2) Estimated on the basis of wages per hour/output per man-hour for Mexico's eight major trading partners.

Source: Salinas de Gortari (1994, 156) for 1970-80; Banco de México (1996b, 282), 1980-95; Internet database for 1996-97.

Table A19. Monthly Exchange Rate, 1976-97
(end of period market rates, pesos per U.S. dollar)

	1976	1977	1978	1979	1980	1981	1982	1983
January	12.4906	22.1759	22.7259	22.7168	22.827	23.3889	26.6153	100.51
February	12.4906	22.6472	22.7403	22.7988	22.8467	23.5523	44.6389	104.15
March	12.4906	22.6866	22.7431	22.8273	22.8514	23.7617	45.5295	108.18
April	12.4906	22.6372	22.7432	22.8418	22.8184	23.9867	46.3606	112.08
May	12.4906	22.7983	22.7689	22.8403	22.8574	24.1833	47.1328	116.11
June	12.4906	22.9949	22.8170	22.8400	22.9303	24.4372	48.0405	120.01
July	12.4906	22.8609	22.8377	22.8328	23.0220	24.6417	48.9208	124.04
August	12.4906	22.8661	22.8390	22.8027	22.9925	24.9223	69.5000	128.07
September	19.8460	22.6941	22.7323	22.7713	23.0598	25.2022	50.0000	131.97
October	25.4875	22.6659	22.7874	22.8632	23.1139	25.4850	50.0000	136.00
November	22.0729	22.6540	22.7828	22.8536	23.1943	25.8467	50.0000	139.90
December	19.9500	22.7363	22.7243	22.8025	23.3700	26.2289	96.4800	143.93
	1984	1985	1986	1987	1988	1989	1990	1991
January	147.96	197.83	404.75	978.35	2207.50	2293.00	2671.00	2953.00
February	151.73	202.59	439.70	1046.70	2257.00	2325.00	2699.00	2964.20
March	155.76	208.90	473.40	1120.40	2257.00	2358.00	2729.00	2975.00
April	159.66	215.20	504.10	1182.65	2257.00	2389.00	2760.00	2988.60
May	163.69	221.71	537.30	1264.95	2257.00	2424.50	2790.20	3001.00
June	167.59	228.01	575.30	1347.35	2257.00	2456.00	2813.40	3012.20
July	171.62	280.92	632.50	1412.65	2257.00	2487.00	2839.00	3025.40
August	175.65	291.50	695.70	1485.60	2257.00	2518.00	2863.80	3037.40
September	179.55	305.10	751.60	1563.60	2257.00	2547.00	2886.20	3049.80
October	183.58	321.00	806.10	1634.10	2257.00	2579.00	2912.60	3062.20
November	187.48	340.90	862.50	1753.85	2257.00	2609.00	2928.20	3065.40
December	192.56	371.50	923.00	2198.50	2257.00	2637.00	2939.40	3074.95
	1992	1993	1994	1995	1996	1997		
January	3066.00	3.0939	3.1063	5.6950	7.3910	7.8393		
February	3060.75	3.0938	3.2075	5.8375	7.5390	7.7844		
March	3083.50	3.0976	3.3598	6.8175	7.5480	7.8905		
April	3078.95	3.1022	3.2673	5.7850	7.4040	7.9267		
May	3113.44	3.1227	3.3145	6.1775	7.4100	7.9085		
June	3122.50	3.1212	3.3918	6.3092	7.6110	7.9577		
July	3114.06	3.1189	3.4019	6.0882	7.6130	7.8088		
August	3081.00	3.1145	3.3794	6.3114	7.4930	7.7548		
September	3116.31	3.1178	3.4040	6.4195	7.5370	7.8199		
October	3132.30	3.1176	3.4300	7.1717	7.9170	8.1033		
November	3115.90	3.1125	3.4498	7.6517	7.8700	8.2000		
December	3115.40	3.1059	5.3250	7.6425	7.8510	8.0833		

Source: Banco de México(b), several issues; (d).

Table A20. Monthly Exchange Rate, 1982-91^a
(end of period and average controlled rates, pesos per U.S. dollar)

	1982		1983		1984		1985	
	End	Average	End	Average	End	Average	End	Average
January	-	-	100.510	98.560	147.960	146.010	197.830	195.280
February	-	-	104.150	102.395	151.730	149.910	202.590	200.295
March	-	-	108.180	106.230	155.760	153.810	208.900	205.763
April	-	-	112.080	110.195	159.660	157.775	215.200	212.155
May	-	-	116.110	114.160	163.690	161.740	221.710	218.560
June	-	-	120.010	118.125	167.590	165.710	228.010	224.965
July	-	-	124.040	122.090	171.620	169.670	280.920	241.848
August	69.50	69.50	128.070	126.120	175.650	173.700	291.500	285.819
September	50.00	50.00	131.970	130.085	179.550	177.665	305.100	298.173
October	50.00	50.00	136.000	134.050	183.580	181.630	321.000	313.161
November	50.00	50.00	139.900	138.020	187.480	185.595	340.900	330.237
December	96.48	67.72	143.930	141.98	192.560	190.021	371.500	357.239
	1986		1987		1988		1989	
	End	Average	End	Average	End	Average	End	Average
January	404.750	388.176	978.35	948.73	2207.50	2201.92	2293.00	2275.16
February	439.700	421.157	1046.70	1014.60	2257.00	2231.41	2325.00	2308.86
March	473.400	459.342	1120.40	1084.33	2257.00	2257.00	2358.00	2341.92
April	504.100	489.647	1182.65	1151.77	2257.00	2257.00	2389.00	2374.87
May	537.300	520.048	1264.95	1226.85	2257.00	2257.00	2424.50	2407.77
June	575.300	556.533	1347.35	1308.61	2257.00	2257.00	2456.00	2440.55
July	632.500	602.816	1412.65	1379.30	2257.00	2257.00	2487.00	2471.52
August	695.700	665.461	1485.60	1448.71	2257.00	2257.00	2518.00	2502.61
September	751.600	724.380	1563.60	1523.76	2257.00	2257.00	2547.00	2533.07
October	806.100	780.074	1634.10	1599.01	2257.00	2257.00	2579.00	2563.52
November	862.500	834.880	1753.85	1691.65	2257.00	2257.00	2609.00	2593.90
December	923.000	893.719	2198.50	2023.42	2257.00	2257.00	2637.00	2624.29
	1990		1991					
	End	Average	End	Average				
January	2671.00	2655.48	2953.00	2946.79				
February	2699.00	2684.96	2964.20	2958.61				
March	2729.00	2714.55	2975.00	2970.30				
April	2760.00	2744.80	2988.60	2982.64				
May	2790.20	2775.52	3001.00	2994.83				
June	2813.40	2802.25	3012.20	3006.95				
July	2839.00	2826.64	3025.40	3019.25				
August	2863.80	2851.49	3037.40	3031.63				
September	2886.20	2875.80	3049.80	3043.77				
October	2912.60	2900.22	3062.20	3056.05				
November	2928.20	2921.52	3065.40	3063.89				
December	2939.40	2934.34	-	-				

a. A dual exchange rate system was introduced in August 1982, with "preferential" and "general" rates. In September full exchange controls were established, with "preferential" and "ordinary" rates. These controls were relaxed considerably in December. The controlled exchange rate was eliminated on November 11, 1991.

Source: Banco de México(b), several issues; (d).

Table A21. Mexico-U.S. Real Monthly Exchange Rate, 1970-94^a
(1980=100)

	1970	1971	1972	1973	1974	1975	1976	1977	1978
January	117.29	117.62	116.41	113.11	99.93	94.62	90.20	123.17	119.65
February	118.02	117.37	116.71	112.99	98.86	94.80	88.79	131.78	118.61
March	118.15	117.15	116.07	113.12	99.32	94.49	88.17	130.86	118.26
April	118.83	117.01	115.78	112.16	98.54	94.32	87.98	129.35	118.03
May	119.07	117.22	115.77	111.67	98.96	93.35	87.85	129.54	117.95
June	118.83	117.47	115.13	111.35	98.77	92.66	87.93	129.94	118.06
July	118.73	118.02	115.45	108.95	98.21	92.92	87.67	129.06	116.99
August	118.41	117.17	114.69	109.01	98.33	92.39	87.36	126.39	116.38
September	118.71	116.79	114.60	106.94	98.51	92.11	135.54	124.66	116.09
October	119.38	116.89	114.94	106.31	97.34	92.23	132.05	123.56	115.57
November	118.98	116.92	114.40	106.01	95.50	92.11	150.79	122.69	114.92
December	118.79	116.93	114.54	102.56	95.47	91.81	122.19	121.47	114.04
	1979	1980	1981	1982	1983	1984	1985	1986	1987
January	111.08	104.62	93.46	87.75	160.40	143.94	124.03	154.40	187.30
February	111.30	103.63	92.87	100.35	159.40	141.16	122.62	159.91	187.48
March	110.86	103.05	92.39	140.01	157.81	139.02	121.87	165.86	188.83
April	111.16	102.40	91.33	135.18	155.33	137.40	122.35	167.73	185.40
May	111.11	101.68	91.86	131.72	155.05	137.02	123.62	169.27	184.17
June	111.15	101.28	92.09	129.37	155.11	135.63	124.49	171.04	184.04
July	110.99	99.05	92.72	126.11	153.34	134.90	129.51	176.56	179.76
August	110.45	97.73	92.24	182.64	152.98	134.89	146.99	180.84	175.54
September	110.20	97.51	92.25	193.70	153.94	134.53	147.90	186.59	174.11
October	109.26	97.32	91.88	148.70	153.88	133.28	150.14	190.19	169.04
November	109.41	96.49	91.44	141.26	149.80	131.77	151.74	190.78	165.97
December	108.19	95.25	90.38	145.29	148.04	129.33	154.17	189.50	172.87
	1988	1989	1990	1991	1992	1993	1994		
January	163.39	131.33	131.59	121.43	109.77	103.18	98.41		
February	153.18	132.06	130.19	120.02	108.77	102.42	98.70		
March	148.05	132.87	130.62	118.99	108.49	102.51	103.97		
April	144.35	133.67	131.77	118.43	107.64	101.81	105.43		
May	142.08	134.47	130.52	118.04	108.25	102.31	103.77		
June	139.86	134.95	128.90	117.66	108.52	101.76	105.22		
July	138.10	135.59	128.22	117.30	107.93	101.40	106.20		
August	137.52	136.00	128.34	117.33	106.55	100.77	105.40		
September	137.64	136.64	128.66	117.10	105.98	100.26	105.38		
October	136.97	136.98	128.74	116.40	106.83	100.29	105.57		
November	135.38	137.26	126.53	114.39	105.86	101.10	105.79		
December	132.83	134.89	123.21	111.92	104.28	98.98	123.47		

a. Estimated using the U.S.

Source: Gil Díaz and Carstens (1996, Appendix E, Table 1).

Table A22. Mexico-World Real Monthly Exchange Rate, 1968-94^a
(1970=100)

	1968	1969	1970	1971	1972	1973	1974	1975	1976
January	97.25	100.40	99.02	99.61	104.23	103.38	95.54	96.42	89.56
February	98.00	100.69	99.49	99.45	104.95	106.15	95.93	97.47	88.51
March	98.32	101.83	99.89	99.45	105.20	108.72	97.76	97.48	87.34
April	98.70	101.96	100.49	99.60	104.70	107.96	98.52	97.10	87.40
May	98.30	101.66	100.30	99.90	104.99	108.28	99.59	96.94	87.23
June	98.24	101.68	100.22	100.49	104.41	109.58	98.80	95.92	86.93
July	98.46	101.10	100.21	100.91	104.25	109.62	97.73	94.13	86.80
August	98.24	98.77	99.70	100.69	104.00	107.64	96.62	92.13	86.61
September	98.49	97.70	99.82	101.56	104.27	106.15	96.40	91.13	134.94
October	98.45	99.08	100.48	102.38	104.34	105.79	96.07	91.35	131.67
November	98.79	101.02	100.40	102.22	104.06	103.72	94.78	91.17	150.34
December	98.98	101.62	99.97	103.08	104.17	99.92	95.29	90.34	122.09
	1977	1978	1979	1980	1981	1982	1983	1984	1985
January	123.64	124.41	122.95	114.04	99.65	84.06	148.31	119.15	95.69
February	131.68	123.76	122.23	111.88	96.02	94.39	144.47	117.92	92.85
March	131.44	124.46	121.70	108.69	95.23	129.79	141.52	117.85	91.95
April	131.02	124.40	121.02	107.40	93.24	124.67	138.04	115.85	94.86
May	131.60	122.74	119.89	109.79	91.10	122.87	137.46	113.75	95.41
June	132.14	123.65	120.18	109.94	88.94	116.54	135.56	112.26	96.56
July	132.11	124.52	121.95	108.47	87.76	111.11	132.77	109.17	102.56
August	129.20	125.84	120.83	106.22	86.01	159.33	130.35	108.40	117.52
September	127.26	125.06	120.53	106.50	87.69	168.43	131.06	106.25	117.15
October	127.50	127.06	119.03	105.83	87.94	128.75	132.05	104.50	123.01
November	127.33	124.26	117.96	103.52	88.54	122.11	126.71	104.26	125.73
December	127.81	123.36	117.44	100.87	87.34	128.95	123.83	100.87	128.49
	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	129.99	173.66	162.10	128.08	129.52	125.51	113.95	105.03	100.41
February	138.33	174.65	150.50	128.30	128.29	124.95	111.70	104.42	101.18
March	145.65	176.12	146.68	128.42	127.83	120.32	109.71	105.16	106.80
April	148.05	176.25	144.26	128.51	129.24	118.12	109.56	105.52	107.92
May	151.17	175.61	141.60	126.62	129.45	117.44	111.35	106.53	106.98
June	151.60	173.49	137.18	125.94	127.48	115.36	113.08	105.70	108.73
July	158.42	167.44	132.30	128.56	127.95	114.87	114.03	104.06	111.37
August	164.09	163.38	130.62	128.86	130.07	115.83	113.54	103.89	109.51
September	169.24	163.76	130.43	129.09	131.49	117.32	112.84	104.46	110.12
October	172.15	159.00	131.85	131.64	133.90	117.09	111.91	103.76	111.80
November	171.37	159.93	132.03	132.23	132.16	116.64	108.07	103.68	112.38
December	170.62	169.98	130.59	130.74	127.67	115.27	105.96	101.30	130.67

a. Estimated using the "world" CPI (basket of 133 countries).

Source: Banco de México (1986a, 135) for 1968-69; Gil Díaz and Carstens (1996, Appendix E, Table 2) for 1970-94.

Table A23. Gross International Reserves at the Bank of Mexico^a, 1960-97
(end of period, million dollars)

	1960	1961	1962	1963	1964	1965	1966
January	448.3	424.3	416.3	472.4	584.4	584.4	552.4
February	464.3	392.3	408.3	488.4	592.4	584.4	560.4
March	480.4	376.3	432.3	472.4	576.4	608.5	568.4
April	472.4	392.3	432.3	488.4	568.4	552.4	576.4
May	456.3	368.3	416.3	480.4	536.4	544.4	560.4
June	448.3	336.3	392.3	472.4	528.4	504.4	544.4
July	424.3	336.3	400.3	520.4	536.4	488.4	536.4
August	432.3	376.3	416.3	512.4	544.4	552.4	544.4
September	416.3	376.3	400.3	504.4	520.4	544.4	504.4
October	424.3	368.3	392.3	496.4	536.4	528.4	496.4
November	424.3	392.3	432.3	520.4	600.5	552.4	544.4
December	456.3	440.3	456.3	560.4	616.5	576.4	576.4
	1967	1968	1969	1970	1971	1972	1973
January	584.4	640.5	672.5	752.6	880.7	1265.0	1489.1
February	616.5	632.5	672.5	768.6	888.7	1345.0	1529.1
March	600.5	624.5	688.5	784.6	920.7	1289.0	1513.1
April	624.5	624.5	688.5	808.6	936.7	1329.0	1505.1
May	624.5	664.5	704.5	784.6	928.7	1361.0	1457.1
June	640.5	632.5	720.5	744.6	960.7	1401.1	1433.1
July	648.5	648.5	712.5	760.6	976.7	1465.1	1377.0
August	608.5	640.5	664.5	768.6	1000.8	1417.1	1465.1
September	640.5	624.5	688.5	736.6	992.7	1377.0	1289.0
October	624.5	648.5	704.5	704.5	1096.8	1281.0	1208.9
November	624.5	656.5	688.5	744.6	1112.8	1289.0	1353.0
December	640.5	688.5	720.5	824.6	1128.8	1417.1	1521.1
	1974	1975	1976	1977	1978	1979	1980
January	1457.1	1465.1	1529.1	1654.9	2178.1	2456.3	3162.9
February	1473.1	1601.2	1705.3	1620.5	2022.8	2508.9	3190.8
March	1721.3	1585.2	1617.2	1617.7	2049.0	2549.6	3247.1
April	1713.3	1593.2	1857.4	1687.5	2070.9	2609.3	3295.6
May	1721.3	1569.2	1841.4	1482.6	2046.7	2521.9	3395.0
June	1689.3	1505.1	1841.4	1639.5	2007.3	2552.5	3475.8
July	1457.1	1657.2	1465.1	1797.8	2053.6	2601.5	3531.4
August	1377.0	1537.2	1441.1	1797.4	2119.2	2640.0	3601.2
September	1465.1	1449.1	1143.8	1872.7	2129.1	2700.8	3703.4
October	1401.1	1529.1	855.3	1954.5	2124.0	2781.8	3776.9
November	1593.2	1857.4	1581.1	1929.0	2159.5	2782.9	3919.1
December	1513.1	1673.3	1413.5	1966.0	2301.5	3087.4	4003.3

Table continues...

Table A23. Gross International Reserves at the Bank of Mexico^a, 1960-97
(end of period, million dollars)

	1981	1982	1983	1984	1985	1986
January	4096.0	3614.5	2292.3	5252.8	7755.1	6193.0
February	4165.2	2345.5	2464.7	5656.8	6892.2	6227.2
March	4271.6	3314.3	3088.4	5692.1	7713.3	5956.3
April	4398.3	2318.8	3279.8	5943.3	7563.7	6153.9
May	4536.2	3901.7	3513.9	6298.5	7321.7	5432.5
June	3707.5	2148.2	3633.0	7093.5	6959.3	4414.4
July	4041.9	2295.5	4336.5	7085.4	5741.8	3906.6
August	4798.9	2122.3	3551.2	7276.4	5558.1	4488.7
September	3952.0	2738.0	4173.7	7951.0	5756.8	4486.4
October	3790.5	2632.0	3957.4	7878.9	5902.8	4823.2
November	4139.8	2480.0	5130.1	8974.3	5776.5	5198.4
December	5036.4	1828.4	4922.5	8108.1	5754.0	6732.5
	1987	1988	1989	1990	1991	1992
January	7529.5	13633.3	6719.1	6110.7	10980.7	18320.0
February	7915.1	13910.2	6754.5	8445.9	11951.6	19431.2
March	8968.1	15963.0	6042.7	4755.6	12025.5	18845.8
April	12815.8	16357.6	5895.1	5457.1	13578.6	19693.1
May	12979.2	15725.5	4959.6	5913.7	14081.3	19234.7
June	13811.4	14307.7	5400.3	6913.0	14428.7	19300.2
July	14030.0	11925.5	6012.7	7255.8	14822.5	19307.3
August	14628.4	12450.3	5956.8	7572.5	14341.5	19154.5
September	14613.8	10010.0	7353.6	8034.1	16856.8	19520.5
October	14426.8	9106.8	7056.2	8594.9	17711.4	18901.8
November	14180.5	6924.3	7026.2	9865.4	20131.8	19031.4
December	13784.8	6658.0	6869.9	10294.8	18071.8	19256.6
	1993	1994	1995	1996	1997	
January	20806.7	26275.0	3483.3	15484.0	18960.0	
February	21428.0	29155.0	8977.5	15780.0	20202.0	
March	20916.8	24425.0	6849.5	15798.0	20001.0	
April	23925.9	17297.0	8704.6	15642.0	21496.0	
May	23261.9	17142.0	10437.7	15955.0	22262.0	
June	22272.8	15998.0	10081.8	15402.0	21730.0	
July	22519.5	16161.0	13866.8	16263.0	22489.0	
August	22597.2	16421.0	15072.6	15444.0	23285.0	
September	22863.6	16140.0	14698.7	15563.0	24442.0	
October	23017.4	17242.0	13496.2	16094.0	25830.0	
November	18689.8	12484.0	13593.6	16317.0	25474.0	
December	24537.5	6148.0	15741.0	17509.0	28003.0	

a. The amount of gross international reserves at the Bank of Mexico was one of the most guarded secrets. Ever since the 1940s and up to 1994, the updated figure was revealed, in kind-of rituals, only *twice* a year: during the address of the General Director of the Bank of Mexico to the Mexican Bankers Convention, and during the "State of the Union" address that the President delivered to Congress, while the Annual Report of the Bank of Mexico gave (with a lag of several months) the year's-end figure. The numbers above are estimated by dividing the fraction of foreign assets of the monetary base by the exchange rate. When checked against figures that are available the estimates obtained turn out to be (not surprisingly) very precise, with the margin of error -if any- inferior to 1% most of the time. The secrecy finished with the explosion of the December 1994 crisis. Since then the Bank of Mexico publishes the reserves' figure *once a week*, and its Annual Report contains the daily figures, plus the intervention of the Bank in the exchange rate market and its impact on its reserves.

Source: 1960-93, estimated with Banco de México(d); 1994-95 from Banco de México (1995a, 1996a); 1996-97 from Banco de México Internet database.

Table A24. Bank of Mexico Reciprocal Currency Arrangements, 1941-1982.
(million dollars)

Year	U.S. Treasury ^a	U.S. Federal Reserve ^b	Bank of France	Bank of Spain	Bank of Israel	Total
1941-53	50.0	0.0	0.0	0.0	0.0	50.0
1953-66	75.0 ^c	0.0	0.0	0.0	0.0	75.0
1967-72	100.0 ^d	130.0 ^e	0.0	0.0	0.0	230.0
1973-74	200.0 ^f	180.0 ^g	0.0	0.0	0.0	380.0
1975-76	300.0 ^h	360.0 ⁱ	0.0	0.0	0.0	660.0
1977	300.0	360.0	0.0	100.0 ^j	0.0	760.0
1978	300.0	360.0	0.0	100.0	100.0 ^k	860.0
1979	300.0	700.0	300.0 ^l	100.0	100.0	1500.0
1980-82	300.0	700.0	300.0	150.0 ^m	100.0	1550.0

a. Agreement of Monetary Stabilisation established with the Exchange Stabilisation Fund. Usually the agreement was renovated every two years.

b. Formally with the Federal Reserve System. The drawings and repayments were made directly with the Federal Reserve Bank of New York.

c. Increased on June 9, 1953, from \$50.0 million to \$75.0 million.

d. Increased on June 26, 1967, from \$75.0 million to 100.0 million.

e. Agreement signed in May 1967.

f. Increased in December 1973 from \$100.0 million to \$200.0 million.

g. Increased in July 10, 1973, from \$130.0 million to \$180.0 million.

h. Increased during 1975 from \$200.0 million to \$300.0 million.

i. Increased in August 29, 1975, from \$180.0 million to \$360.0 million.

j. Agreement signed in October 1977.

k. Agreement signed on October 5, 1978.

l. Agreement signed on May 4, 1979.

m. Increased in September 1980 from \$100.0 million to \$150.0 million.

Source: Constructed with data from: Nacional Financiera (1955b, 587; 1967b, 557); Banco de México (1967a, 37-38; 1973a, 74; 1975a, 51; 1980a, 38-39; 1981a, 32-33); U.S. Federal Reserve, "Treasury and Federal Reserve Foreign Exchange Operations", *Federal Reserve Bulletin* (1975a, March, 208); SHCP (1981a, 98; 1982a, 108).

Table A25. Capital Flight Estimations, 1970-91^a
(million dollars)

Year	Zedillo	Gurría-Fadl	Ize-Ortiz	Cuddington	D-H-T-U ^b	World Bank ^c	Morgan ^d	E-H-W ^e
1970	-523.9	-466.0	-	-	-	-	-	-318.4
1971	-379.7	-323.0	-	-	-	-	-	-430.0
1972	-620.1	-598.0	-	-	-	-	-	-687.7
1973	668.0	690.0	-	-	-	-	-	834.1
1974	755.3	806.0	-	1272.0	1600.0	-	-	1113.4
1975	784.2	859.0	-	1285.0	1100.0	-	-	679.0
1976	2944.0	2971.0	-	3331.0	3500.0	3990.0	3990.0	3047.4
1977	686.7	944.0	-	917.0	4300.0	4985.0	4985.0	898.6
1978	66.8	131.0	614.0	572.0	800.0	1878.0	1763.0	-103.3
1979	231.7	20.0	921.1	1107.0	2800.0	2666.0	2370.0	-1271.1
1980	-678.2	-251.0	2982.5	4668.0	7300.0	7363.0	6753.0	797.6
1981	9733.1	11648.0	7017.5	10910.0	8200.0	8224.0	8560.0	12968.0
1982	8225.2	6490.0	7850.9	7856.0	6700.0	7039.0	7243.0	9589.5
1983	2415.4	2710.0	4605.3	4314.0	-	11656.0	11706.0	1208.0
1984	2332.0	1561.0	2105.3	2585.0	-	5763.0	6022.0	1541.1
1985	1917.7	726.0	-	-	-	-	-	3605.2
1986	-	-2520.0	-	-	-	-	-	-366.8
1987	-	-999.0	-	-	-	-	-	61.4
1988	-	2522.0	-	-	-	-	-	3263.1
1989	-	-5630.0	-	-	-	-	-	-1724.2
1990	-	-	-	-	-	-	-	-1442.4
1991	-	-	-	-	-	-	-	-7931.4

a. A negative sign indicates a capital inflow.

b. Estimate from Dooley, Helkie, Tryon and Underwood, reproduced by Gulati (1987, 74-75).

c. Estimate from the World Bank Development Report (1984) reproduced by Cumby and Levich (1987, 58-59).

d. *World Financial Markets* (March 1986), reproduced by Cumby and Levich (1987, 58-59).

e. Estimate including trade mis-invoicing by Eggerstedt, Hall, and van Wijnbergen (1995, 211-232).

Other sources: Zedillo (1987, 177); Gurría and Fadl (1991, 6); Ize and Ortiz (1987, 325), and Cuddington (1987, 86).

Table A26. Quarterly Capital Flight Estimation^a, 1967-82
(million dollars)

Period	Long-Term Debt ^b	Short-Term Debt ^c	FDI ^d	Δ Int. Reserves ^e	Current Account ^f	Capital Flight ^g
1967.1	64.7	115.7	22.1	19.2	-91.3	92.0
1967.2	118.3	126.9	18.4	31.6	-159.0	73.0
1967.3	103.4	-16.9	9.2	-7.8	-221.5	-118.0
1967.4	133.1	98.2	20.6	-3.1	-175.5	79.5
Total	419.5	323.9	70.3	39.9	-647.3	126.5
1968.1	-21.9	138.4	31.7	-7.4	-152.9	2.7
1968.2	70.1	90.7	38.2	0.9	-242.4	-44.3
1968.3	84.0	23.4	21.4	-13	-247.5	-105.7
1968.4	229.4	25.1	16.4	68.5	-185.3	17.1
Total	361.6	277.6	107.7	49.0	-828.1	-130.2
1969.1	161.3	-44.3	51.2	3.4	-116.0	48.8
1969.2	180.4	44.4	64.1	27.6	-204.2	57.1
1969.3	168.0	-47.8	39.2	-30.6	-234.6	-44.6
1969.4	88.9	-84.9	44.9	47.5	-216.4	-215.0
Total	598.6	-132.6	199.4	47.9	-771.2	-153.7
1970.1	126.9	52.4	45.4	51.9	-147.6	25.2
1970.2	80.1	48.3	61.6	-27.6	-331.2	-113.6
1970.3	175.1	29.1	43.8	-13.7	-416.9	-155.2
1970.4	-5.4	200.4	33.8	91.5	-359.7	-222.4
Total	376.7	330.2	184.6	102.1	-1255.4	-466.0
1971.1	66.3	165.4	42.4	100.0	-201.8	-27.7
1971.2	208.9	-35.8	53.7	39.9	-293.7	-106.8
1971.3	69.4	-101.5	41.3	29.6	-268.6	-289.0
1971.4	190.3	129.1	35.6	30.4	-223.8	100.8
Total	534.9	157.2	173.0	199.9	-987.9	-322.7
1972.1	289.5	21.2	56.4	99.5	-114.8	152.8
1972.2	63.0	202.0	56.6	163.5	-280.5	-122.4
1972.3	163.4	-330.1	24.0	-30.3	-397.7	-510.1
1972.4	169.5	11.4	19.2	31.9	-286.0	-117.8
Total	685.4	-95.5	156.2	264.6	-1079.0	-597.5
1973.1	287.2	110.4	54.1	38.9	-241.5	171.3
1973.2	241.0	239.0	80.3	-53.2	-368.9	244.6
1973.3	596.2	-22.7	52.2	-113.6	-493.6	245.7
1973.4	519.6	308.9	35.1	250.1	-585.4	28.1
Total	1644.0	635.6	221.7	122.2	-1689.4	689.7
1974.1	454.8	324.1	68.8	188.5	-460.7	198.5
1974.2	537.9	259.6	98.2	-5.9	-878.8	22.8
1974.3	603.7	339.2	69.2	-176.3	-993.9	194.5
1974.4	905.8	586.8	54.8	30.6	-1127.0	389.8
Total	2502.2	1509.7	291.0	36.9	-3460.4	805.6
1975.1	506.8	514.2	55.7	96.2	-930.9	49.6
1975.2	798.8	351.5	39.6	-95.9	-1181.7	104.1
1975.3	1083.1	17.4	62.0	-71.8	-1113.1	121.2
1975.4	1780.0	398.5	46.7	236.6	-1403.8	584.8
1975	4168.7	1281.6	204.0	165.1	-4629.5	859.7

Table continues...

Table A26. Quarterly Capital Flight Estimation^a, 1967-82
(million dollars)

Period	Long-Term Debt ^b	Short-Term Debt ^c	FDI ^d	Δ Int. Reserves ^e	Current Account ^f	Capital Flight
1976.1	912.2	38.0	110.3	-44.4	-951.8	153.1
1976.2	1132.0	654.7	66.1	-385.0	-1121.7	1116.1
1976.3	1002.0	505.3	37.8	-653.5	-1121.6	1077.0
1976.4	1443.7	-76.0	-2.5	79.0	-662.5	623.7
1976	4489.9	1122.0	211.7	-1003.9	-3857.6	2969.9
1977.1	206.6	-1.7	77.9	210.1	-66.8	5.9
1977.2	755.5	11.1	81.9	173.4	-442.8	232.3
1977.3	1032.5	-378.5	71.9	224.8	-727.4	-226.3
1977.4	1949.6	-698.6	95.3	48.8	-589.6	707.9
1977	3944.2	-1067.7	327.0	657.1	-1826.6	719.8
1978.1	751.9	-375.6	176.4	155.8	-226.8	170.1
1978.2	159.4	52.9	35.0	67.3	-1050.8	-870.8
1978.3	1494.3	-513.7	51.1	55.1	-881.4	95.2
1978.4	1898.5	-123.7	122.6	156.0	-937.1	804.3
1978	4304.1	-960.1	385.1	434.2	-3096.1	198.8
1979.1	1208.7	25.9	-58.6	210.9	-701.0	264.1
1979.2	154.5	566.5	398.2	96.8	-1340.2	-317.8
1979.3	1055.0	210.6	306.1	-49.2	-1814.7	-193.8
1979.4	1390.7	907.9	136.5	160.5	-1709.5	565.1
1979	3808.9	1710.9	782.2	419.0	-5565.4	317.6
1980.1	1740.1	231.9	218.0	289.2	-1383.0	517.8
1980.2	1124.2	994.9	170.1	224.0	-2676.2	-611.0
1980.3	2368.2	271.1	309.1	209.5	-3338.9	-600.0
1980.4	3415.6	745.6	163.1	295.9	-3254.3	774.1
Total	8648.1	2243.5	860.3	1018.6	-10652.4	80.9
1981.1	149.9	2533.9	424.3	228.7	-2628.6	250.8
1981.2	2841.7	4052.9	268.0	-547.3	-3632.8	4077.1
1981.3	4866.7	2234.9	431.0	200.9	-5081.8	2249.9
1981.4	8446.8	2888.7	213.3	1129.9	-4587.8	5831.1
Total	16305.1	11710.4	1336.6	1012.2	-15931.0	12408.9
1982.1	845.8	1772.3	261.2	-1458.2	-4043.3	294.2
1982.2	5429.0	-626.8	314.8	-1102.5	-2454.7	3764.8
1982.3	4920.6	-4340.2	349.2	-367.6	-384.6	912.6
1982.4	3585.4	-2736.2	31.6	-256.5	1216.5	2353.8
Total	14780.8	-5930.9	956.8	-3184.8	-5666.1	7325.4

a. Following a similar methodology to that presented by Zedillo (1987, 175-176) and Gurría and Fadl (1991, 5), capital flight is calculated as a "residual" of the balance of payments: the sum of resources received by the country, net external indebtedness plus foreign direct investment minus the "uses": the balance of the current account (net of revenues from domestic investments abroad) plus the net change in the stock of gross international reserves. Any difference is considered capital flight. Naturally, that difference may be partially explained by flows that were not registered in the balance of payments' statistics, such as trade misinvoicing, as Zedillo (176) points out.

b. Long-term net external indebtedness of the public and private sectors (liabilities row of the capital account).

c. Short-term net external indebtedness of the public and private sectors (liabilities row of the capital account).

d. After 1980 it refers only to new investments, net of debt-for-equity swaps.

e. Change in gross international reserves.

f. Net of revenues from domestic investments abroad and, after 1980, reinvested profits.

Source: Estimated with data from Banco de México(d).

Table A27. Monthly Real Minimum Wage, 1969-97
(June 1970 = 100)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
January	92.0	101.2	96.4	109.9	103.1	112.6	117.2	127.4	134.1	127.3
February	91.6	101.2	96.0	109.9	102.2	110.1	116.6	125.0	131.2	125.5
March	91.5	100.9	95.7	109.0	101.3	109.3	115.8	123.8	128.9	124.2
April	91.3	100.8	95.2	108.3	99.7	107.8	114.8	123.0	127.0	122.9
May	91.3	100.6	95.0	108.1	98.7	107.0	113.3	122.1	126.0	121.7
June	91.0	100.0	94.7	107.3	97.9	106.0	111.4	121.6	124.4	120.0
July	90.7	99.5	94.7	106.8	95.4	104.5	110.5	120.6	123.0	118.0
August	90.6	99.0	93.8	106.1	93.9	103.3	109.6	119.4	120.5	116.9
September	89.8	98.8	93.4	105.8	108.2	102.2	108.8	115.5	118.4	115.5
October	88.8	98.7	93.4	105.6	106.8	122.9	108.2	134.5	117.5	114.2
November	88.8	98.2	93.2	104.9	105.5	119.6	107.5	128.7	116.3	113.0
December	88.1	97.4	92.8	104.6	101.6	118.7	106.6	125.6	114.7	112.0
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
January	125.3	121.0	123.2	125.9	97.5	84.5	82.5	78.1	71.5	65.9
February	123.5	118.2	120.2	121.2	92.5	80.3	79.2	74.7	66.7	60.8
March	121.9	115.9	117.7	116.9	88.2	77.0	76.2	71.4	62.6	59.6
April	120.7	113.9	115.2	110.9	83.0	73.8	73.9	67.9	69.1	57.8
May	119.1	112.1	113.4	105.0	79.5	71.4	72.2	64.3	64.2	56.7
June	117.9	109.9	111.8	100.1	88.4	82.8	83.1	75.6	59.9	55.6
July	116.4	106.9	109.9	95.2	84.2	80.2	80.3	72.0	68.2	54.7
August	114.8	104.7	107.7	85.6	81.1	78.0	77.0	66.7	63.1	54.2
September	113.3	103.6	105.7	81.3	78.6	75.7	74.0	62.9	59.2	53.9
October	111.4	102.1	103.4	100.5	76.1	73.2	71.3	72.4	68.3	53.5
November	110.0	100.3	101.5	95.6	71.9	70.7	68.2	67.8	63.3	52.8
December	108.0	97.8	98.8	86.4	68.9	67.8	63.8	62.8	63.4	51.7
	1989	1990	1991	1992	1993	1994	1995	1996	1997	
January	54.5	51.9	48.2	45.8	44.4	44.2	42.9	34.9	36.4	
February	53.8	50.7	47.4	45.2	44.1	44.0	41.2	34.1	35.8	
March	53.2	49.9	46.7	44.8	43.8	43.8	38.9	33.4	35.3	
April	52.4	49.1	46.2	44.4	43.6	43.6	40.3	36.4	35.0	
May	51.7	48.3	45.8	44.1	43.3	43.3	38.7	35.7	34.6	
June	51.1	47.2	45.3	43.8	43.1	43.1	37.5	35.1	34.3	
July	53.6	46.4	44.9	43.5	42.9	42.9	36.8	34.6	34.0	
August	53.1	45.6	44.6	43.3	42.6	42.7	36.2	34.2	33.7	
September	52.6	45.0	44.1	42.9	42.3	42.4	35.4	33.6	33.3	
October	51.8	44.3	43.6	42.6	42.2	42.2	34.7	33.2	33.1	
November	51.1	51.0	47.7	42.2	42.0	42.0	33.9	32.7	32.7	
December	54.4	49.4	46.6	41.6	41.7	41.6	36.1	37.3	32.2	

Source: Calculated from Table A4 and Banco de México(a), several issues.

Table A28. Official Oil and Gas Reserves, 1961-97
(billion barrels)

	Total	Δ %	Crude	Gas ^a
January 1961	4.8	-	-	-
December 1965	5.1	6.3	-	-
December 1970	5.6	9.8	3.3	2.3
December 1975	6.3	12.5	3.9	2.4
November 1976 ^b	6.3	0.0	3.9	2.4
December 1976 ^c	11.2	77.8	7.3	3.9
June 1977	14.0	25.0	9.1	4.9
December 1977	16.0	14.3	10.5	5.5
September 1978	20.2	26.3	14.4	5.8
December 1978	40.2	99.0	28.4	11.8
September 1979	45.8	13.9	33.5	12.3
March 1980	50.0	9.2	37.3	12.7
September 1980	60.1	20.2	47.2	12.9
March 1981	67.8	12.8	52.8	15.0
September 1981	72.0	6.2	57.0	15.0
March 1982	72.0	0.0	57.0	15.0
December 1983	72.5	0.7	57.1	15.4
December 1984	71.8	-1.0	56.5	15.3
December 1985	70.9	-1.3	55.6	15.3
December 1986	70.0	-1.3	54.9	15.1
December 1987	69.0	-1.4	54.1	14.9
December 1988	67.6	-2.0	53.0	14.6
December 1989	66.5	-1.6	52.0	14.5
December 1990	65.5	-1.5	51.3	14.2
December 1991	65.0	-0.8	50.9	14.1
December 1992	65.1	0.2	51.3	13.8
December 1993	64.5	-0.9	50.8	13.7
December 1994	63.2	-2.0	49.8	13.4
December 1995	62.1	-1.7	48.9	13.3
December 1996	60.9	-1.9	48.5	12.4
December 1997	60.2	-1.1	47.9	12.3

a. Equivalent in billions of barrels.

b. Estimate at the end of the Echeverría administration.

c. Estimate at the beginning of the López Portillo administration.

Source: Grayson (1980, 65); Székely (1983, 95); Salinas (1991, 247), and Ortiz Dietz (1996, I-13).

Table A29. Nominal and Real Prices^a of Gasoline^b, Diesel, and Natural Gas, 1956-1994
(pesos per litre and per cubic metre; 1960 = 100).

Year	Gasoline	Diesel	Real Gasoline	Real Diesel	Domestic Gas	Industrial Gas	Real Domestic	Real Industrial
1956	0.90	0.16	110.7	61.5	-	-	-	-
1957	0.90	0.16	103.7	57.6	-	-	-	-
1958	0.90	0.16	98.3	54.6	0.09	0.09	89.3	89.3
1959	1.00	0.32	104.9	104.9	0.11	0.11	104.9	104.9
1960	1.00	0.32	100.0	100.0	0.11	0.11	100.0	100.0
1961	1.00	0.32	96.7	96.7	0.12	0.12	105.5	105.5
1962	1.00	0.32	93.9	93.9	0.12	0.12	102.4	102.4
1963	1.00	0.32	91.1	91.1	0.12	0.12	99.4	99.4
1964	1.00	0.32	86.2	86.2	0.12	0.12	94.0	94.0
1965	1.00	0.32	84.2	84.2	0.12	0.12	91.9	91.9
1966	1.00	0.32	81.1	81.1	0.12	0.12	88.4	88.4
1967	1.00	0.32	78.8	78.8	0.12	0.12	85.9	85.9
1968	1.00	0.32	76.9	76.9	0.12	0.12	83.9	83.9
1969	1.00	0.32	74.0	74.0	0.12	0.12	80.7	80.7
1970	1.00	0.32	70.8	70.8	0.12	0.12	77.3	77.3
1971	1.00	0.32	66.8	66.8	0.12	0.12	72.8	72.8
1972	1.00	0.32	62.7	62.7	0.14	0.14	79.8	79.8
1973	1.40	0.32	77.4	55.3	0.14	0.14	70.4	70.4
1974	1.40	0.32	62.8	44.8	0.18	0.70	73.4	285.3
1975	2.10	0.50	81.0	60.3	0.18	0.70	63.1	245.5
1976	2.10	0.50	67.5	50.2	0.18	0.70	52.6	204.4
1977	2.80	0.65	68.6	49.8	0.26	0.77	57.9	171.5
1978	2.80	0.65	58.5	42.4	0.26	0.77	49.4	146.2
1979	2.80	0.65	48.4	35.1	0.31	1.21	48.7	190.1
1980	2.80	1.00	37.4	41.7	0.42	1.21	50.9	146.8
1981	6.00	2.50	63.5	82.7	0.56	1.21	53.9	116.4
1982	20.00	10.00	131.6	205.6	1.70	1.21	101.7	72.4
1983	30.00	19.00	103.6	205.1	6.19	6.19	194.4	194.4
1984	40.00	26.00	86.8	176.4	13.39	13.39	264.3	264.3
1985	85.00	61.10	117.7	264.5	30.00	30.00	377.8	377.8
1986	155.00	140.00	123.1	347.5	58.00	50.00	418.8	361.1
1987	493.00	445.00	164.1	463.0	183.00	183.00	553.9	553.9
1988	493.00	445.00	82.3	232.1	183.00	183.00	277.6	277.6
1989	525.00	470.00	69.6	194.8	243.00	197.00	293.0	237.6
1990	710.00	605.00	72.8	193.7	243.00	212.00	226.4	197.5
1991	1100.00	665.00	92.7	175.1	237.00	235.00	181.5	180.0
1992	1120.00	785.00	82.3	180.3	290.00	360.00	193.8	240.6
1993	1180.00	850.00	78.9	177.5	270.00	550.00	164.1	334.2
1994	1330.00	1080.00	82.8	210.2				

a. Prices at the end of each year.

b. Gasolmex 90, 1956-72; Nova, 1973-95.

Source: Nominal prices from Ortiz Dietz (1985 and 1996). Prices deflated by the GDP deflator presented in Table A1.

Table A30. Nominal and Real Electricity Prices^a, 1960-1997
(peso per kilowatt-hour; 1960=100)

Year	Industrial	Agricultural	Domestic	Real Industrial	Real Agricultural	Real Domestic
1960	0.16	0.19	0.44	100.0	100.0	100.0
1961	0.16	0.20	0.46	96.7	101.8	101.1
1962	0.17	0.20	0.46	99.8	98.9	98.2
1963	0.18	0.20	0.46	102.5	95.9	95.2
1964	0.17	0.20	0.47	91.6	90.7	92.1
1965	0.17	0.22	0.47	89.5	97.5	90.0
1966	0.18	0.21	0.47	91.2	89.6	86.6
1967	0.18	0.21	0.46	88.6	87.1	82.3
1968	0.18	0.20	0.46	86.5	81.0	80.4
1969	0.17	0.20	0.47	78.6	77.9	79.0
1970	0.20	0.18	0.47	88.5	67.1	75.7
1971	0.20	0.19	0.47	83.5	66.8	71.3
1972	0.20	0.17	0.47	78.3	56.1	66.9
1973	0.21	0.18	0.48	72.6	52.4	60.3
1974	0.25	0.17	0.58	70.1	40.1	59.1
1975	0.28	0.14	0.60	67.5	28.4	52.6
1976	0.34	0.15	0.67	68.3	25.4	48.9
1977	0.52	0.27	0.83	79.6	34.8	46.2
1978	0.47	0.25	0.77	61.3	27.5	36.5
1979	0.54	0.29	0.90	58.3	26.4	35.3
1980	0.70	0.35	1.08	58.4	24.6	32.7
1981	0.90	0.42	1.31	59.5	23.4	31.5
1982	1.28	0.22	1.77	52.6	7.6	26.5
1983	2.09	0.21	2.73	45.1	3.8	21.4
1984	4.91	1.12	6.02	66.6	12.8	29.7
1985	7.64	1.88	8.66	66.1	13.7	27.3
1986	16.16	3.35	18.11	80.2	14.0	32.7
1987	35.83	7.02	32.65	74.6	12.3	24.7
1988	80.52	22.04	71.33	84.0	19.4	27.1
1989	103.06	22.52	81.92	85.4	15.7	24.7
1990	126.02	31.65	113.20	80.7	17.1	26.4
1991	156.1	68.2	160.1	76.4	28.1	28.5
1992	175.6	98.9	193.7	75.1	35.6	30.1
1993	177.3	125.4	202.4	69.3	41.3	28.8
1994	169.3	127.6	213.9	61.0	38.7	28.0
1995	199.3	134.6	252.7	52.1	29.6	24.0
1996	277.9	167.7	318.9	56.0	28.5	23.4
1997	357.8	196.3	374.7	60.7	28.1	23.1

a. Prices at the end of each year.

Source: Nominal prices from Ortiz Dietz (1985 and 1996) for 1960-95. Prices deflated by the GDP deflator presented in Table A1. Secretaría de Energía Internet database for 1996-97.

Table A31. Foreign Investment in the Mexican Stock Market, 1991-97
(million dollars)

Period	ADRs	Free Subscription	Funds	Total
12.91	13733.5	2961.0	1848.1	18542.6
01.92	15376.0	3736.9	2016.1	21129.0
02.92	17825.2	4062.7	2265.8	24153.7
03.92	18663.6	4461.9	2243.8	25369.3
04.92	19149.1	4193.7	2772.6	26115.4
05.92	20523.8	4297.5	2324.5	27145.8
06.92	16202.4	3780.1	2135.3	22117.8
07.92	17052.0	2954.7	1867.3	21874.0
08.92	16574.0	3411.8	1904.8	21890.6
09.92	15713.1	2954.7	1867.3	20535.1
10.92	18370.3	3771.5	2167.6	24309.4
11.92	20763.1	4464.4	2369.5	27597.0
12.92	21154.0	5097.0	2417.1	28668.1
01.93	21044.7	4912.7	2600.9	28558.3
02.93	18480.2	4288.3	2565.0	25333.5
03.93	22210.8	5058.6	2790.1	30059.5
04.93	19892.4	4859.6	2780.2	27532.2
05.93	19872.5	4920.5	2990.3	27783.3
06.93	20280.9	5378.3	3313.6	28972.8
07.93	21141.8	6308.1	3760.0	31209.9
08.93	22660.3	7132.2	4363.8	34156.3
09.93	22086.6	7117.1	4485.0	33688.7
10.93	24374.3	8722.7	5043.1	38140.1
11.93	26509.8	10539.7	5959.3	43008.8
12.93	33959.6	12906.1	7744.3	54610.0
01.94	38100.0	14100.0	8700.0	60900.0
02.94	34900.0	13200.0	8100.0	56200.0
03.94	31100.0	11700.0	7500.0	50300.0
04.94	30000.0	11100.0	7300.0	48400.0
05.95	31900.0	12000.0	7800.0	51700.0
06.94	28600.0	10700.0	7100.0	46400.0
07.94	31700.0	11800.0	7500.0	51000.0
08.94	33400.0	13500.0	8500.0	55400.0
09.94	33400.0	13800.0	8700.0	55900.0
10.94	29900.0	12900.0	8200.0	51000.0
11.94	29100.0	13000.0	8400.0	50500.0
12.94	21200.0	8100.0	5100.0	34400.0
01.95	14700.0	4800.0	3500.0	23000.0
02.95	12600.0	3500.0	2800.0	18900.0
03.95	13400.0	4000.0	2500.0	19900.0
04.95	15000.0	5000.0	3100.0	23100.0
05.95	13900.0	5000.0	3100.0	22000.0
06.95	14900.0	5700.0	3200.0	23800.0
07.95	16700.0	6600.0	3700.0	27000.0
08.95	16500.0	6800.0	3700.0	27000.0
09.95	15600.0	6400.0	3400.0	25400.0
10.95	13200.0	5500.0	3200.0	21900.0
11.95	15400.0	5800.0	3300.0	24500.0
12.95	15200.0	5900.0	3400.0	24500.0

Table continues...

Table A31. Foreign Investment in the Mexican Stock Market, 1991-97
(million dollars)

Period	ADRs	Free Subscription	Funds	Total
01.96	16700	7600	3900	28200
02.96	14900	7000	3800	25700
03.96	16100	7700	4400	28200
04.96	17300	9600	4500	31400
05.96	17100	10300	4500	31900
06.96	17100	10300	4300	31700
07.96	15500	10000	4200	29700
08.96	17100	11400	4400	32900
09.96	16600	11500	4400	32500
10.96	15400	10500	4200	30100
11.96	14400	11000	4300	29700
12.96	15100	11400	4400	30900
01.97	17100	11600	5000	33700
02.97	17400	12100	5200	34700
03.97	17100	11800	5200	34100
04.97	17600	11900	5100	34600
05.97	19100	12900	5300	37300
06.97	21100	15400	6300	42800
07.97	23900	18200	7600	49700
08.97	22500	18400	7700	48600
09.97	24100	20300	8800	53200
10.97	19800	15800	7100	42700
11.97	22400	17600	8800	48800
12.97	23100	19500	6200	48800

Source: Banco de México(b), Statistical Appendix, several issues.

APPENDIX B

MEXICAN PUBLIC DEBT STATISTICS

Table B1. External Public Debt, 1950-97
(million dollars)

Year	Total ^a	Long Term	Short Term	%	Total Zedillo	Long Term	Short Term	%
1950	-	105.8	-	-	-	-	-	-
1951	-	119.0	-	-	-	-	-	-
1952	-	156.3	-	-	-	-	-	-
1953	-	185.8	-	-	-	-	-	-
1954	-	225.4	-	-	2544.5	2544.5	0.0	0.0
1955	-	400.7	-	-	2581.7	2581.7	0.0	0.0
1956	-	442.8	-	-	2617.1	2617.1	0.0	0.0
1957	-	513.1	-	-	2692.9	2692.9	0.0	0.0
1958	-	602.7	-	-	2994.8	2804.7	190.1	6.3
1959	-	649.1	-	-	3048.8	2868.1	180.7	5.9
1960	-	813.4	-	-	3245.3	3031.6	213.7	6.6
1961	-	983.5	-	-	3443.7	3205.2	238.5	6.9
1962	-	1126.6	-	-	3551.8	3338.2	213.6	6.0
1963	-	1315.4	-	-	3743.1	3528.5	214.6	5.7
1964	-	1723.5	-	-	4132.8	3901.9	230.9	5.6
1965	2140.4	1771.0	369.3	17.3	4185.6	3902.7	282.9	6.8
1966	2343.0	1891.8	451.2	19.3	4421.2	4029.8	391.4	8.9
1967	2804.2	2176.1	628.1	22.4	4959.9	4325.4	634.5	12.8
1968	3174.3	2483.3	691.0	21.8	5331.0	4517.3	759.7	14.3
1969	3778.0	2914.8	863.2	22.8	5812.1	5087.9	724.2	12.5
1970	4262.7	3259.9	1002.8	23.5	6255.5	5350.5	905.0	14.5
1971	4545.8	3554.4	991.4	21.8	6666.7	5632.8	1033.9	15.5
1972	5064.6	4322.2	742.4	14.7	6820.9	6048.7	772.2	11.3
1973	7070.4	5731.8	1338.6	18.9	8448.8	7262.8	1186.0	14.0
1974	9975.0	7980.8	1994.2	20.0	11373.8	9341.2	2032.6	17.9
1975	14449.0	11612.0	2837.0	19.6	15705.1	12907.8	2797.3	17.8
1976	19600.2	15923.4	3676.8	18.8	20846.4	17169.6	3676.3	17.6
1977	22912.1	20185.3	2726.8	11.9	23833.7	21106.9	2726.8	11.4
1978	26264.3	25027.7	1236.6	4.7	26422.5	25185.9	1236.6	4.7
1979	29757.2	28315.0	1442.2	4.8	29757.2	28315.0	1442.2	4.8
1980	33812.8	32322.0	1490.8	4.4	-	-	-	-
1981	52960.6	42206.7	10753.9	20.3	-	-	-	-
1982	58874.2	49548.7	9325.5	15.8	-	-	-	-
1983	62556.2	52778.7	9777.5	15.6	-	-	-	-
1984	69377.9	68994.4	383.5	0.6	-	-	-	-
1985	72080.1	71626.0	454.1	0.6	-	-	-	-
1986	75350.9	73956.8	1394.1	1.9	-	-	-	-
1987	81406.8	80845.9	560.9	0.7	-	-	-	-
1988	81003.2	80223.3	779.9	1.0	-	-	-	-
1989	76059.0	75434.5	624.5	0.8	-	-	-	-
1989 ^b	76132.8	75434.5	698.3	0.9	-	-	-	-
1990	77770.3	76614.3	1156.0	1.5	-	-	-	-
1990 ^b	77810.1	76614.3	1195.8	1.5	-	-	-	-
1991	79987.8	78260.5	1727.3	2.2	-	-	-	-
1991 ^b	80314.8	78260.5	2054.3	2.6	-	-	-	-
1992	75755.2	72288.8	3466.4	4.6	-	-	-	-
1992 ^b	76092.1	72288.8	3803.3	5.0	-	-	-	-
1993	78747.4	74501.4	4246.0	5.4	-	-	-	-
1993 ^b	80345.9	74501.4	5844.5	7.3	-	-	-	-
1994	85435.8	79082.3	6353.5	7.4	-	-	-	-
1994 ^b	114641.9	79082.3	35559.6	31.0	-	-	-	-
1995	100933.7	93737.4	7196.3	7.1	-	-	-	-
1995 ^b	101179.4	93737.4	7442.0	7.4	-	-	-	-
1996	98284.5	93293.5	4991.0	5.1	-	-	-	-
1997	88321.2	84260.7	4060.5	4.6	-	-	-	-

a. Gurría and the Secretariat of Finance and Public Credit (SHCP) present the same statistics for the 1965-92 period.

b. Including the Tesobono debt (see Table B24) as part of the external debt.

Source: Nafinsa (1972a) for 1950-65; Zedillo (1982, 45); Gurría (1993, 230). 1993-97 from SHCP(b) of the period.

Table B2. Quarterly Public External Debt, 1975-97
(million dollars)

	1975.4	1976.3	1976.4		1977.1	1977.2
Long Term	11612.0	n.a.	15923.4		16289.4	16510.5
Federal Government	1550.6	n.a.	2863.8		3052.7	3104.2
Financial Enterprises	2231.7	n.a.	3606.8		3675.2	3799.8
Non-Fin. Enterprises	7829.7	n.a.	9452.8		9561.5	9606.5
Short Term	2837.0	n.a.	3676.8		3952.2	4025.4
Financial Enterprises	2104.7	n.a.	715.9		3535.0	3198.4
Non-Fin. Enterprises	732.3	n.a.	2960.9		417.2	827.0
TOTAL	14449.0	17802.2	19600.2		20241.6	20535.9
	1977.3	1977.4	1978.1	1978.2	1978.3	1978.4
Long Term	18301.5	20185.3	20966.2	21660.5	23735.9	25027.7
Federal Government	3358.9	3668.9	4041.0	4188.5	4392.7	4796.7
Financial Enterprises	4353.5	5520.0	5535.1	5727.5	6758.0	7047.3
Non-Fin. Enterprises	10589.1	10996.4	11390.1	11744.5	12585.2	13183.7
Short Term	3642.9	2726.8	2809.3	2919.3	2158.1	1236.6
Financial Enterprises	2834.9	2219.1	2067.5	2218.0	1511.5	937.1
Non-Fin. Enterprises	808.0	507.7	741.8	701.3	646.6	299.5
TOTAL	21944.4	22912.1	23775.5	24579.8	25894.0	26264.3
	1979.1	1979.2	1979.3	1979.4	1980.1	1980.2
Long Term	26167.3	26254.9	27089.8	28315.0	29451.3	30538.3
Federal Government	5061.2	4708.7	4616.0	5134.8	5074.1	5524.6
Financial Enterprises	13383.9	7557.4	8135.3	8153.8	8506.8	8613.1
Non-Fin. Enterprises	7722.2	13988.8	14338.5	15026.4	15870.4	16400.6
Short Term	928.6	1683.6	1463.1	1442.2	1363.5	1514.8
Financial Enterprises	590.7	1060.3	1208.7	1213.7	1153.0	966.0
Non-Fin. Enterprises	337.9	623.3	254.4	228.5	210.5	548.8
TOTAL	27095.9	27938.5	28552.9	29757.2	30814.8	32053.1
	1980.3	1980.4	1981.1	1981.2	1981.3	1981.4
Long Term	31786.6	32322.0	32811.5	33417.1	37238.5	42206.7
Federal Government	5588.7	5622.6	5306.2	4903.9	6032.1	7234.0
Financial Enterprises	8848.5	8897.6	9000.4	9430.7	10588.0	10910.0
Non-Fin. Enterprises	17349.4	17801.8	18504.9	19082.5	20618.4	24062.7
Short Term	1658.3	1490.8	3254.8	4640.0	8042.2	10753.9
Financial Enterprises	1300.2	1009.4	1734.4	2176.8	3928.2	5517.3
Non-Fin. Enterprises	358.1	481.4	1520.4	2463.2	4114.0	5236.6
TOTAL	33444.9	33812.8	36066.3	38057.1	45280.7	52960.6

Table continues...

Table B2. Quarterly Public External Debt, 1975-97
(million dollars)

	1982.1	1982.2	1982.3	1982.4	1983.1	1983.2
Long Term	42703.3	46275.9	48368.0	49548.7	50872.2	50338.8
Federal Government	7757.3	8625.4	11064.4	12476.1	14353.4	14196.9
Financial Enterprises	11022.9	11837.6	11494.8	10767.6	10617.6	10311.2
Non-Fin. Enterprises	23923.1	25812.9	25808.8	26305.0	25901.2	25830.7
Short Term	13602.7	11600.9	8861.6	9325.5	9433.9	9670.5
Federal Government	0.0	1106.9	0.0	0.0	0.0	0.0
Financial Enterprises	6720.9	5784.0	4628.3	4580.9	4747.1	5005.4
Non-Fin. Enterprises	6881.8	4710.0	4233.3	4744.6	4686.8	4665.1
TOTAL	56306.0	57876.8	57229.6	58874.2	60306.1	60009.3
	1983.3	1983.4	1984.1	1984.2	1984.3	1984.4
Long Term	51222.9	52778.7	62861.6	66245.4	68650.5	68994.4
Federal Government	15303.0	16962.9	17064.8	20440.3	23033.9	24652.8
Financial Enterprises	10200.8	9955.9	15160.1	15407.5	14732.0	14274.8
Non-Fin. Enterprises	25719.1	25859.9	30636.7	30397.6	30884.6	30066.8
Short Term	9688.3	9777.5	341.6	512.6	394.7	383.5
Financial Enterprises	5012.6	5002.0	102.4	315.2	211.7	203.7
Non-Fin. Enterprises	4675.7	4775.5	239.2	197.4	183.0	179.8
TOTAL	60911.2	62556.2	63203.2	66758.0	69045.2	69377.9
	1985.1	1985.2	1985.3	1985.4	1986.1	1986.2
Long Term	69567.4	69899.8	70705.6	71626.0	72122.6	72696.7
Federal Government	26148.0	26863.1	25353.0	25634.3	23696.5	24209.1
Financial Enterprises	13575.4	12446.6	13500.7	13947.1	16192.7	16177.8
Non-Fin. Enterprises	29844.0	30590.1	31851.9	32044.6	32233.4	32309.8
Short Term	388.4	439.4	437.4	454.1	335.6	240.5
Financial Enterprises	203.5	311.1	339.6	273.9	222.6	187.8
Non-Fin. Enterprises	184.9	128.3	97.8	180.2	113.0	52.7
TOTAL	69955.8	70339.2	71143.0	72080.1	72458.2	72937.2
	1986.3	1986.4	1987.1	1987.2	1987.3	1987.4
Long Term	72867.6	73956.8	75550.8	78853.6	78492.5	80845.9
Federal Government	24419.2	30778.9	n.a.	n.a.	n.a.	n.a.
Financial Enterprises	16345.6	17700.0	n.a.	n.a.	n.a.	n.a.
Non-Fin. Enterprises	32102.8	25477.9	n.a.	n.a.	n.a.	n.a.
Short Term	915.9	1394.1	995.1	440.7	472.1	560.9
Federal Government	570.0	0.0	n.a.	n.a.	n.a.	n.a.
Financial Enterprises	203.3	280.0	n.a.	n.a.	n.a.	n.a.
Non-Fin. Enterprises	142.6	1114.1	n.a.	n.a.	n.a.	n.a.
TOTAL	73783.5	75350.9	76545.9	79294.3	78964.6	81406.8

Table continues...

Table B2. Quarterly Public External Debt, 1975-97
(million dollars)

	1986.1	1986.2	1986.3	1986.4	1987.1 ^a	1987.2
Long Term	72122.6	72696.7	72867.6	73956.8	75550.8	78853.6
Short Term	335.6	240.5	915.9	1394.1	995.1	440.7
Federal Government	23696.5	24209.1	24989.2	31678.6	31919.6	34018.7
Financial Enterprises	16415.3	16365.6	16548.9	17999.0	18753.8	19061.3
Non-Fin. Enterprises	32346.4	32362.5	32245.4	25673.3	25872.5	26214.3
TOTAL	72458.2	72937.2	73783.5	75350.9	76545.9	79294.3
	1987.3	1987.4	1988.1	1988.2	1988.3	1988.4
Long Term	78492.5	80845.9	80798.6	79122.5	78084.0	80223.3
Short Term	472.1	560.9	482.4	408.6	468.6	779.9
Federal Government	33650.0	34986.6	36949.8	35438.1	37560.8	36994.3
Financial Enterprises	19261.8	20125.0	19462.3	19814.6	17816.0	20245.4
Non-Fin. Enterprises	26052.8	26295.2	24868.9	24278.4	23175.8	23763.3
TOTAL	78964.6	81406.8	81281.0	79531.1	78552.6	81003.2
	1989.1	1989.2	1989.3	1989.4	1990.1	1990.2
Long Term	77618.8	76203.4	76558.1	75434.5	72792.1	76203.4
Short Term	667.3	617.6	638.7	624.5	735.2	617.6
Federal Government	36405.8	35615.9	35781.1	36589.9	29615.7	35615.9
Financial Enterprises	18592.7	18451.8	18663.3	16966.2	21797.2	18451.8
Non-Fin. Enterprises	23287.6	22753.3	22752.4	22502.9	22114.4	22753.3
TOTAL	78286.1	76821.0	77196.8	76059.0	73527.3	76821.0
	1990.3	1990.4	1991.1	1991.2	1991.3	1991.4
Long Term	76336.1	76614.3	75622.6	74886.3	75824.4	78260.5
Short Term	1121.6	1156.0	1046.6	1547.2	1978.5	1727.3
Federal Government	47702.1	46560.4	46550.1	50415.1	50697.1	51126.4
Financial Enterprises	20486.8	21523.3	21347.8	18093.6	18804.1	20243.5
Non-Fin. Enterprises	9268.8	9686.6	8771.3	7924.8	8301.7	8617.9
TOTAL	77457.7	77770.3	76669.2	76433.5	77802.9	79987.8

Table continues...

Table B2. Quarterly Public External Debt, 1975-97
(million dollars)

	1992.1	1992.2	1992.3	1992.4	1993.1	1993.2
Long Term	78268.9	73130.7	73706.5	72288.8	72740.8	74337.8
Short Term	2482.9	2956.4	3233.4	3466.4	4587.1	4566.0
Federal Government	51503.4	46020.2	45346.7	43946.8	44101.3	43963.4
Financial Enterprises	21017.6	21592.3	22989.8	22426.8	23883.3	25223.8
Non-Fin. Enterprises	8230.8	8474.6	8603.4	9381.6	9343.3	9716.6
TOTAL	80751.8	76087.1	76939.9	75755.2	77327.9	78903.8
	1993.3	1993.4	1994.1	1994.2	1994.3	1994.4
Long Term	75140.8	74501.4	76650.7	78387.8	78976.5	79082.3
Short Term	4241.2	4246.0	5081.2	5177.3	6161.2	6353.5
Federal Government	45730.4	43175.0	43742.1	46141.1	46432.3	44576.6
Financial Enterprises	23938.4	26067.7	27841.7	27529.1	28360.2	28846.8
Non-Fin. Enterprises	9713.2	9504.7	10148.1	9894.9	10345.2	12012.4
TOTAL	79382.0	78747.4	81731.9	83565.1	85137.7	85435.8
	1995.1	1995.2	1995.3	1995.4	1996.1	1996.2
Long Term	83174.6	89731.1	92322.1	93737.4	93751.4	92289.6
Short Term	4367.3	3805.2	3502.1	7196.3	6153.5	6195.2
Federal Government	47615.2	52600.3	56088.4	60017.4	57525.2	57150.1
Financial Enterprises	27724.2	28794.7	27890.9	29217.5	32582.0	31650.7
Non-Fin. Enterprises	12202.5	12141.3	11844.9	11698.8	9797.7	9684.0
TOTAL	87541.9	93536.3	95824.2	100933.7	99904.9	98484.8
	1996.3	1996.4	1997.1	1997.2	1997.3	1997.4
Long Term	93454.9	93293.5	88463.4	91324.0	84817.9	84260.7
Short Term	6267.1	4991.0	5467.9	5535.2	4673.3	4060.5
Federal Government	57580.9	55578.7	52566.7	55634.8	49139	49051.7
Financial Enterprises	32026.5	31364.3	29829.6	29438.3	28888.4	28373.4
Non-Fin. Enterprises	10114.6	11341.5	11535.0	11786.1	11463.8	10896.1
TOTAL	99722.0	98284.5	93931.3	96859.2	89491.2	88321.2

Note: CAPFCE and Federal District Department (see Tables B3-B5) are considered non-financial public enterprises.

Source: Constructed with data from for 1975.4, 1976.4, 1977.1 and 1977.2 comes from López Portillo (1977, 241-242). Other data from SHCP(b), various quarters. Data for the 1982-1997 period also available at <http://www.shcp.gob.mx>.

Table B3. Quarterly Net External Indebtedness, 1977-97
(million dollars)

	1977.1	1977.2	1977.3	1977.4	1978.1	1978.2	1978.3	1978.4	1979.1
Long Term	366.0	221.1	1791.0	1883.8	780.9	694.3	2075.4	1291.8	1139.6
Short Term	275.4	73.2	-382.5	-916.1	82.5	110.0	-761.2	-921.5	-308.0
Total	641.4	294.0	1408.5	967.7	863.4	804.3	1314.2	370.3	831.6
	1979.2	1979.3	1979.4	1980.1	1980.2	1980.3	1980.4	1981.1	1981.2
Long Term	87.6	834.9	1225.2	1136.3	1087.0	1248.3	535.4	489.5	605.6
Short Term	755.0	-220.5	-20.9	-78.7	151.3	143.5	-167.5	1764.0	1385.2
Total	842.6	614.4	1204.3	1057.6	1238.3	1391.8	367.9	2253.5	1990.8
	1981.3	1981.4	1982.1	1982.2	1982.3	1982.4	1983.1	1983.2	1983.3
Long Term	3821.4	4968.2	496.6	3572.6	2092.1	1180.7	1323.5	-533.4	884.1
Short Term	3402.2	2711.7	2848.8	-2001.8	-2739.3	463.9	108.4	236.6	17.8
Total	7223.6	7679.9	3345.4	1570.8	-647.2	1644.6	1431.9	-296.8	901.9
	1983.4	1984.1	1984.2	1984.3	1984.4	1985.1	1985.2	1985.3	1985.4
Long Term	1555.8	10082.9	3383.8	2405.1	343.9	573	332.4	805.8	920.4
Short Term	89.2	-9435.9	171.0	-117.9	-11.2	4.9	51.0	-2.0	16.7
Total	1645.0	647.0	3554.8	2287.2	332.7	577.9	383.4	803.8	937.1
	1986.1	1986.2	1986.3	1986.4	1987.1	1987.2	1987.3	1987.4	1988.1
Long Term	496.6	574.1	170.9	1089.2	1594.0	3302.8	-361.1	2353.4	-47.3
Short Term	-118.5	-95.1	675.4	478.2	-399.0	-554.4	31.4	88.8	-78.5
Total	378.1	479.0	846.3	1567.4	1195.0	2748.4	-329.7	2442.2	-125.8
	1988.2	1988.3	1988.4	1989.1	1989.2	1989.3	1989.4	1990.1	1990.2
Long Term	-1676.1	-1038.5	2139.3	-2604.5	-1415.4	354.7	-1123.6	-2642.4	3411.3
Short Term	-73.8	60.0	311.3	-112.6	-49.7	21.1	-14.2	110.7	-117.6
Total	-1749.9	-978.5	2450.6	-2717.7	-1464.1	375.8	-1137.8	-2531.7	3293.7
	1990.3	1990.4	1991.1	1991.2	1991.3	1991.4	1992.1	1992.2	1992.3
Long Term	132.7	278.2	-991.7	-736.3	938.1	2436.1	8.4	-5138.2	575.8
Short Term	504	34.4	-109.4	500.6	431.3	-251.2	755.6	473.5	277.0
Total	636.7	312.6	-1101.1	-235.7	1369.4	2184.9	764.0	-4664.7	852.8
	1992.4	1993.1	1993.2	1993.3	1993.4	1994.1	1994.2	1994.3	1994.4
Long Term	-1417.7	452.0	1597.0	803.0	-639.4	2149.3	1737.1	588.7	105.8
Short Term	233.0	1120.7	-21.1	-324.8	4.8	835.2	96.1	983.9	192.3
Total	-1184.7	1572.7	1575.9	478.2	-634.6	2984.5	1833.2	1572.6	298.1
	1995.1	1995.2	1995.3	1995.4	1996.1	1996.2	1996.3	1996.4	1997.1
Long Term	4092.3	6556.5	2591	1415.3	14.0	-1461.8	1165.3	-161.4	-4830.1
Short Term	-1986.2	-562.1	-303.1	3694.2	-1042.8	41.7	71.9	-1276.1	476.9
Total	2106.1	5994.4	2287.9	5109.5	-1028.8	-1420.1	1237.2	-1437.5	-4353.2
	1997.2	1997.3	1997.4						
Long Term	2860.6	-6506.1	-557.2						
Short Term	67.3	-861.9	-612.8						
Total	2927.9	-7368	-1170						

Source: Constructed with data from Table B2.

Table B4. Service and Implicit Interest Rates on the Long-Term External Debt^a, 1966-82
(million dollars and percentages)

Period	Average ^b (1)	Interests (2)	Amortisation (3)	Service (2) + (3)	Implicit Int. Rate (2)/(1) * 100
1966	1831.4	92.8	471.5	564.3	5.07
1967	2034.0	117.0	467.7	584.7	5.75
1968	2329.7	153.1	572.3	725.4	6.57
1969	2699.1	167.1	524.8	691.9	6.19
1970	3087.4	223.2	565.5	788.7	7.23
1971	3407.2	229.2	511.1	740.3	6.73
1972	3938.3	257.1	601.4	858.5	6.53
1973	5027.0	372.2	896.5	1268.7	7.40
1974	6856.3	566.8	688.0	1254.8	8.27
1975	9796.4	809.9	855.1	1665.0	8.27
1976	13767.7	1075.9	1156.2	2232.1	7.81
1977	18054.4	1249.2	2295.0	3544.2	6.92
1978	22606.5	1805.2	4264.3	6069.5	7.99
1979	26671.4	2750.1	7285.9	10036.0	10.31
1980	30318.5	3797.1	3723.4	7520.5	12.52
1981	37264.4	4478.8	4806.3	9285.1	12.02
1982	45877.7	6215.3	3767.0	9982.3	13.55

a. There is no data available on amortisation payments of short-term debt until 1983. Surprisingly, the data of Zedillo (1982), Gurría (1993) and the Annual Reports of Presidents López Portillo and De la Madrid do not coincide on the long-term debt stocks data, but *do* coincide on the data on amortisation and interest payments (though in some years the presidential reports present as long-term debt service what for Zedillo is total debt service). Therefore, the series of Zedillo on both items (the longest available) are used here. The average stock of the debt is calculated from the series of Gurría, as are those that coincide fully with the numbers presented in the quarterly reports of the Ministry of Finance (SHCP) to Congress.

b. Average of the debt stock during the year.

Source: Constructed with data from Table B1; Zedillo (1981, 51); SHCP(b), 1978-82.

Table B5. External Debt Service and Implicit Interest Rates^a, 1966-97
(million dollars and percentages)

Period	Average ^b (1)	Interests (2)	Amortisation (3)	Service (2) + (3)	Implicit Int. Rate (2)/(1) * 100
1966	2241.7	92.8	n.a.	n.a.	4.14
1967	2573.6	148.1	n.a.	n.a.	5.75
1968	2989.3	199.3	n.a.	n.a.	6.67
1969	3476.2	221.1	n.a.	n.a.	6.36
1970	4020.4	290.3	n.a.	n.a.	7.22
1971	4404.3	306.3	n.a.	n.a.	6.95
1972	4805.2	321.4	n.a.	n.a.	6.69
1973	6067.5	442.1	n.a.	n.a.	7.29
1974	8522.7	707.1	n.a.	n.a.	8.30
1975	12212.0	1031.5	n.a.	n.a.	8.45
1976	17024.6	1318.7	n.a.	n.a.	7.75
1977	21256.2	1542.3	n.a.	n.a.	7.26
1978	24588.2	2023.1	n.a.	n.a.	8.23
1979	28010.8	2888.4	n.a.	n.a.	10.31
1980	31785.0	3797.1	n.a.	n.a.	11.86
1981	43386.7	4737.0	n.a.	n.a.	10.92
1982	55917.4	6215.3	n.a.	n.a.	11.11
1983	60715.2	6468.8	4611.8	11080.6	10.65
1984	65967.1	7611.1	3618.0	11229.1	11.54
1985	70729.0	7601.0	4050.1	11651.1	10.75
1986	73715.5	6104.5	4703.2	10807.7	8.28
1987	78378.9	5700.3	6573.5	12273.8	7.27
1988	81205.0	6353.0	9258.7	15611.7	7.82
1989	78531.1	6929.1	7442.8	14371.9	8.82
1990	76914.7	5515.4	5683.2	11198.6	7.17
1991	78879.1	5788.9	9116.5	14905.4	7.34
1992	77871.5	5337.5	20383.2	25720.7	6.85
1993	77251.3	4803.6	19958.3	24761.9	6.22
1994	82091.6	5361.0	27456.1	32817.1	6.53
1995	93184.8	6331.9	25325.3	31657.2	6.79
1996	99609.1	7135.4	35463.0	42598.4	7.16
1997	93302.9	6801.9	33317.6	40119.5	7.29

a. There is no data available on amortisation payments of short-term debt until 1983. Surprisingly, the data of Zedillo (1982), Gurría (1993) and the Annual Reports of Presidents López Portillo and De la Madrid do not coincide on the long-term debt stocks data, but *do* coincide on the data on amortisation and interest payments (though in some years the presidential reports present as long-term debt service what for Zedillo is total debt service). Therefore, the series of Zedillo on both items (the longest available) are used here. The average stock of the debt is calculated from the series of Gurría, as are those that coincide fully with the numbers presented in the quarterly reports of the Ministry of Finance (SHCP) to Congress.

b. Average of the debt stock during the year.

Source: Constructed with data from Table B1; Zedillo (1981, 51), and SHCP(b), 1983-95.

Table B6. Quarterly Service on the Long-Term Public External Debt, 1978-82
(million dollars)

	1978.1	1978.2	1978.3	1978.4	1978
Interests	278.0	519.4	385.9	611.8	1795.1
Amortisation	716.6	1091.5	1047.2	1409.0	4264.3
TOTAL	994.6	1610.9	1433.1	2020.8	6059.4
	1979.1	1979.2	1979.3	1979.4	1979
Interests	447.4	744.6	742.1	815.9	2750.0
Amortisation	853.5	2975.8	1681.4	1775.2	7285.9
TOTAL	1300.9	3720.4	2423.5	2591.1	10035.9
	1980.1	1980.2	1980.3	1980.4	1980
Interests	799.8	1075.0	964.5	957.8	3797.1
Amortisation	587.3	1013.4	1018.0	1104.7	3723.4
TOTAL	1387.1	2088.4	1982.5	2062.5	7520.5
	1981.1	1981.2	1981.3	1981.4	1981
Interests	830.6	1325.7	943.8	1378.7	4478.8
Amortisation	892.4	1781.2	1038.7	1094.0	4806.3
TOTAL	1723.0	3106.9	1982.5	2472.7	9285.1
	1982.1	1982.2	1982.3	1982.4	1982
Interests	2129.3	942.4	1360.5	1783.1	6215.3
Amortisation	987.4	1242.1	782.9	754.6	3767.0
TOTAL	3116.7	2184.5	2143.4	2537.7	9982.3

Source: Constructed with data from SHCP(b), 1978-82.

Table B7. Quarterly Public External Debt Service, 1983-97
(million dollars)

	1983.1	1983.2	1983.3	1983.4	1983
Interests	1958.2	1679.8	1328.4	1502.4	6468.8
Amortisation	1426.3	900.3	1334.2	951.0	4611.8
TOTAL	3384.5	2580.1	2662.6	2453.4	11080.6
	1984.1	1984.2	1984.3	1984.4	1984
Interests	1648.5	1838.3	2305.3	1819.0	7611.1
Amortisation	768.9	904.9	700.5	1243.7	3618.0
TOTAL	2417.4	2743.2	3005.8	3062.7	11229.1
	1985.1	1985.2	1985.3	1985.4	1985
Interests	2197.3	1740.7	1880.2	1782.8	7601.0
Amortisation	1474.2	1026.5	732.7	816.7	4050.1
TOTAL	3671.5	2767.2	2612.9	2599.5	11651.1
	1986.1	1986.2	1986.3	1986.4	1986
Interests	1453.3	1642.9	1567.0	1441.3	6104.5
Amortisation	819.1	1125.2	1175.3	1583.6	4703.2
TOTAL	2272.4	2768.1	2742.3	3024.9	10807.7
	1987.1	1987.2	1987.3	1987.4	1987
Interests	1582.0	1353.3	1238.9	1526.1	5700.3
Amortisation	1684.7	1816.1	1249.2	1823.5	6573.5
TOTAL	3266.7	3169.4	2488.1	3349.6	12273.8
	1988.1	1988.2	1988.3	1988.4	1988
Interests	1707.7	1471.0	1779.8	1394.5	6353.0
Amortisation	4867.8	1329.0	1401.1	1660.8	9258.7
TOTAL	6575.5	2800.0	3180.9	3055.3	15611.7
	1989.1	1989.2	1989.3	1989.4	1989
Interests	1893.5	1774.7	1575.8	1685.1	6929.1
Amortisation	1545.1	1373.4	1340.2	3184.1	7442.8
TOTAL	3438.6	3148.1	2916.0	4869.2	14371.9
	1990.1	1990.2	1990.3	1990.4	1990
Interests	2365.8	777.9	977.8	1393.9	5515.4
Amortisation	1303.7	1162.1	1328.8	1888.6	5683.2
TOTAL	3669.5	1940.0	2306.6	3282.5	11198.6

Table continues...

Table B7. Quarterly Public External Debt Service, 1983-97
(million dollars)

	1991.1	1991.2	1991.3	1991.4	1991
Interests	959.1	2062.3	1478.5	1289.0	5788.9
Amortisation	1426.0	1856.1	2573.6	3260.8	9116.5
TOTAL	2385.1	3918.4	4052.1	4549.8	14905.4
	1992.1	1992.2	1992.3	1992.4	1992
Interests	1442.0	1340.1	1445.4	1110.0	5337.5
Amortisation	2402.3	8931.7 ^a	4914.3 ^b	4134.9	20383.2
TOTAL	3844.3	10271.8	6359.7	5244.9	25720.7
	1993.1	1993.2	1993.3	1993.4	1993
Interests	1378.0	1078.1	1331.0	1016.8	4803.9
Amortisation	3954.3	5388.1	5217.3	5398.6	19958.3
TOTAL	5332.3	6466.2	6548.3	6415.4	24762.2
	1994.1	1994.2	1994.3	1994.4	1994
Interests	1471.3	1189.2	1470.4	1230.1	5361.0
Amortisation	5883.1	6611.6	6466.0	8495.4	27456.1
TOTAL	7354.4	7800.8	7936.4	9725.5	32817.1
	1995.1	1995.2	1995.3	1995.4	1995
Interests	1592.9	1595.8	1050.2	2093.0	6331.9
Amortisation	7897.6	6735.8	5387.8	5304.1	25325.3
TOTAL	9490.5	8331.6	6438.0	7397.1	31657.2
	1996.1	1996.2	1996.3	1996.4	1996
Interests	1815.7	1641.8	1600.2	2077.7	7135.4
Amortisation	6731.5	8412.7	11821.9	8496.9	35463.0
TOTAL	8547.2	10054.5	13422.1	10574.6	42598.4
	1997.1	1997.2	1997.3	1997.4	1997
Interests	1799.9	1590.6	1714.0	1697.4	6801.9
Amortisation	9459.1	6455.3	11308.8	6094.4	33317.6
TOTAL	11259.0	8045.9	13022.8	7791.8	40119.5

a. Includes cancellation of debt for \$5807.4 million.

b. Includes cancellation of debt for \$1372.5 million.

Source: Constructed with data from SHCP(b), 1983-97.

Table B8. Net Transfer of Resources to or from the Mexican Government, 1966-97
(million dollars and percentages)

Year	(1)	(2)	Transfer	GDP %	Year	(1)	(2)	Transfer	GDP %
1966	202.6	92.8	109.8	0.46	1985	2702.2	7601.0	-4898.8	-3.21
1967	461.2	148.1	313.1	1.20	1986	3270.8	6104.5	-2833.7	-2.28
1968	370.1	199.3	170.8	0.59	1987	6055.9	5700.3	355.6	0.26
1969	603.7	221.1	382.6	1.20	1988	-403.6	6353.0	-6756.6	-3.96
1970	484.7	290.3	194.4	0.55	1989	-4944.2	6929.1	-11873.3	-5.37
1971	283.1	306.3	-23.2	-0.06	1989 ^d	-4870.4	6929.1	-11799.5	-5.34
1972	518.8	321.4	197.4	0.43	1990	1711.3	5515.4	-3804.1	-1.46
1973	2005.8	442.1	1563.7	2.80	1990 ^d	1677.3	5515.4	-3838.1	-1.47
1974	2904.6	707.1	2197.5	3.01	1991	2217.5	5788.9	-3571.4	-1.13
1975	4474.0	1031.5	3442.5	3.84	1991 ^d	2504.7	5788.9	-3284.2	-1.04
1976	5151.2	1318.7	3832.5	4.22	1992	-4232.6	5337.5	-9570.1	-2.63
1977	3311.9	1542.3	1769.6	2.10	1992 ^d	-4222.8	5337.5	-9560.3	-2.63
1978	3352.2	2023.1	1329.1	1.25	1993	2992.2	4803.6	-1811.4	-0.45
1979	3492.9	2888.4	604.5	0.43	1993 ^d	4253.9	4803.6	-549.7	-0.14
1980	4055.6	3797.1	258.5	0.13	1994	6688.4	5361.0	1327.4	0.31
1981	19147.8	4737.0	14410.8	5.77	1994 ^d	34296.0	5361.0	28935.0	6.86
1982	5913.6	6215.3	-301.7	-0.18	1995	15497.9	6331.9	9166.0	3.20
1983	3682.0	6468.8	-2786.8	-2.34	1995 ^d	-13462.6	6331.9	-19794.5	-6.90
1984	6821.7	7611.1	-789.4	-0.50	1996	-2649.2	7135.4	-9784.6	-2.96
					1997	-8793.3	6801.9	-15595.2	-3.91

a. Defined as the net external indebtedness flow minus total external interest payments.

(1) Net external indebtedness.

(2) Total external interest payments.

Source: Estimated with data from Tables A1 and B1.

Table B9. External Public Debt Indicators I, 1965-97.
(percentages, end of period)

Year	Debt/ GDP	Debt/ Exports	Debt/ Exports 2 ^a	Interest/ Exports	Interest/ Exports 2 ^a	Service/ Exports	Service/ Exports 2 ^a
1965	10.00	190.02	190.02	n.a.	n.a.	n.a.	n.a.
1966	9.85	200.27	200.27	n.a.	n.a.	n.a.	n.a.
1967	10.78	254.26	254.26	n.a.	n.a.	n.a.	n.a.
1968	11.02	272.47	272.47	n.a.	n.a.	n.a.	n.a.
1969	11.86	281.56	281.56	n.a.	n.a.	n.a.	n.a.
1970	11.98	330.54	330.54	n.a.	n.a.	n.a.	n.a.
1971	11.56	332.88	332.88	22.41	22.41	59.83	59.83
1972	11.15	303.92	303.92	19.26	19.26	55.39	55.39
1973	12.67	341.30	341.30	21.34	21.34	64.64	64.64
1974	13.65	349.61	349.61	24.78	24.78	48.89	48.89
1975	16.11	471.82	471.82	33.70	33.70	61.62	61.62
1976	21.59	536.18	536.18	36.08	36.08	67.71	67.71
1977	27.20	492.77	492.77	33.16	33.16	82.52	82.52
1978	24.76	433.18	433.18	29.61	29.61	99.94	99.94
1979	21.30	337.48	337.48	31.19	31.19	113.82	113.82
1980	17.36	217.98	187.53	24.48	21.06	48.48	41.71
1981	21.19	263.46	227.23	22.28	19.22	46.19	39.84
1982	34.36	277.32	244.75	29.28	25.84	47.02	41.50
1983	52.59	280.37	241.04	28.99	24.92	43.04	37.00
1984	43.59	286.73	238.41	31.46	26.15	46.41	38.59
1985	47.19	332.72	269.39	35.09	28.41	53.78	43.54
1986	60.69	470.04	345.59	38.08	28.00	67.42	49.57
1987	59.20	394.10	294.96	27.60	20.65	59.42	44.47
1988	47.50	393.89	263.93	30.89	20.70	75.91	50.87
1989	34.41	334.11	216.25	30.44	19.70	63.13	40.86
1989 ^a	34.45	334.43	216.46	30.44	19.70	63.13	40.86
1990	29.87	289.77	191.03	20.55	13.55	41.73	27.51
1990 ^a	29.89	289.92	191.13	20.55	13.55	42.00	27.69
1991	25.41	297.85	187.38	21.56	13.56	55.50	34.92
1991 ^b	25.52	299.07	188.15	21.56	13.56	55.65	35.01
1992	20.83	275.31	163.99	19.40	11.55	93.48	55.68
1992 ^b	20.93	276.54	164.72	19.40	11.55	94.66	56.39
1993	19.53	262.20	151.77	16.00	9.26	82.45	47.72
1993 ^b	19.92	267.53	154.85	17.16	9.93	83.57	48.37
1994	20.26	246.83	140.33	15.49	8.81	94.81	53.90
1994 ^b	27.18	331.21	188.30	26.25	14.93	99.43	56.53
1995	35.20	208.38	126.89	13.07	7.96	65.36	39.80
1995 ^b	35.29	208.88	127.20	22.43	13.66	125.14	76.21
1996	29.78	166.36	102.38	12.08	7.43	72.10	44.37
1997	22.22	137.12	81.04	10.42	6.16	51.05	30.17

a. Including maquiladora exports after 1980.

b. Including the Tesobono debt as part of the external and not the internal debt.

Source: Estimated with data from Tables A1, A13, B1, B4 and B5.

Table B10. External Public Debt Ratios II, 1965-97.
(percentages, end of period)

Year	Net Indebtedness/ Debt ^a	Net Indebtedness/ Interest	Net Indebtedness/ Service	Interest/ Reserves	Service/ Reserves	Short-Term/ Total Debt
1965	n.a.	n.a.	n.a.	n.a.	n.a.	17.25
1966	9.47	n.a.	n.a.	n.a.	n.a.	19.26
1967	19.68	n.a.	n.a.	n.a.	n.a.	22.40
1968	13.20	n.a.	n.a.	n.a.	n.a.	21.77
1969	19.02	n.a.	n.a.	n.a.	n.a.	22.85
1970	12.83	n.a.	n.a.	n.a.	n.a.	23.52
1971	6.64	92.52	34.65	27.11	72.38	21.81
1972	11.41	161.62	56.21	22.65	65.13	14.66
1973	39.60	453.80	149.80	29.06	88.03	18.93
1974	41.08	410.83	208.22	46.73	92.19	19.99
1975	44.85	433.53	237.10	61.67	112.77	19.63
1976	35.65	390.54	208.13	93.31	175.10	18.76
1977	16.90	214.78	86.31	78.43	195.17	11.90
1978	14.63	186.74	55.32	78.00	263.28	4.71
1979	13.30	127.01	34.80	89.07	325.06	4.85
1980	13.63	106.81	53.93	94.85	187.86	4.41
1981	56.63	427.52	206.22	88.93	184.36	20.31
1982	11.17	95.15	59.24	339.93	545.96	15.84
1983	6.25	56.92	38.34	131.41	195.10	15.63
1984	10.90	89.63	60.75	93.87	138.49	0.55
1985	3.89	35.55	23.19	132.10	202.49	0.63
1986	4.54	53.58	30.26	90.67	160.53	1.85
1987	8.04	106.24	49.34	41.35	89.04	0.69
1988	-0.50	-6.35	-2.59	95.42	234.48	0.96
1989	-6.10	-71.35	-34.40	100.86	209.20	0.82
1989 ^a	-6.01	-70.29	-33.89	100.86	209.20	0.92
1990	2.25	31.03	15.28	54.13	109.91	1.49
1990 ^a	2.20	30.41	14.88	54.13	110.63	1.54
1991	2.85	38.31	14.88	33.03	85.06	2.16
1991 ^a	3.22	43.27	16.76	33.03	85.28	2.56
1992	-5.29	-79.30	-16.46	28.77	138.63	4.58
1992 ^a	-5.26	-79.11	-16.21	28.77	140.39	5.00
1993	3.95	62.29	12.08	19.58	100.92	5.39
1993 ^a	5.59	82.54	16.95	21.00	102.29	7.27
1994	8.49	124.76	20.38	87.20	533.78	7.44
1994 ^a	42.69	377.43	99.65	147.80	559.79	31.02
1995	18.14	244.76	48.96	40.23	201.11	7.13
1995 ^a	-11.74	-123.94	-22.21	69.01	385.09	7.36
1996	-2.62	-37.13	-6.22	40.75	243.29	5.08
1996 ^a	-2.86	-39.11	-6.76	42.28	244.70	5.08
1997	-8.95	-129.28	-26.39	24.29	118.98	5.22

a. Including the Tesobono debt as part of the external and not the internal debt.

Source: Estimated with data from Tables A1, A13, A23, B1, B4 and B5.

Table B11. External Debt Real Growth, 1966-97.
(percentages, end of period)

Year	Debt Nominal Growth	U.S. Inflation	Debt Real Growth (1)	GDP Real Growth (2)	(1) - (2)
1966	9.47	2.86	6.42	6.93	-0.51
1967	19.68	3.09	16.10	6.27	9.83
1968	13.20	4.19	8.64	8.14	0.51
1969	19.02	5.46	12.86	6.32	6.53
1970	12.83	5.72	6.72	6.92	-0.20
1971	6.64	4.38	2.17	4.17	-2.01
1972	11.41	3.21	7.95	8.49	-0.54
1973	39.60	6.22	31.43	8.41	23.02
1974	41.08	11.04	27.06	6.11	20.95
1975	44.85	9.13	32.74	5.61	27.13
1976	35.65	5.76	28.26	4.24	24.02
1977	16.90	6.50	9.76	3.44	6.32
1978	14.63	7.59	6.54	8.25	-1.71
1979	13.30	11.35	1.75	9.15	-7.40
1980	13.63	13.50	0.11	8.32	-8.21
1981	56.63	10.32	41.98	8.53	33.46
1982	11.17	6.16	4.71	-0.52	5.24
1983	6.25	3.21	2.95	-3.49	6.43
1984	10.90	4.32	6.32	3.41	2.90
1985	3.89	3.56	0.32	2.19	-1.87
1986	4.54	1.86	2.63	-3.08	5.71
1987	8.04	3.65	4.23	1.72	2.51
1988	-0.50	4.14	-4.45	1.28	-5.73
1989	-6.10	4.82	-10.42	4.11	-14.53
1989 ^a	-6.01	4.82	-10.33	4.11	-14.44
1990	2.25	5.40	-2.99	4.11	-7.10
1990 ^a	2.20	5.40	-3.04	5.18	-8.21
1991	2.85	4.21	-1.30	4.21	-5.52
1991 ^a	3.22	4.21	-0.95	4.21	-5.16
1992	-5.29	3.01	-8.06	3.54	-11.60
1992 ^a	-5.26	3.01	-8.03	3.54	-11.57
1993	3.95	2.99	0.93	1.94	-1.01
1993 ^a	5.59	2.99	2.52	1.94	0.58
1994	8.49	2.56	5.78	4.46	1.33
1994 ^a	42.69	2.56	39.12	4.46	34.66
1995	18.14	2.83	14.88	-6.22	21.10
1995 ^a	-11.74	2.83	-14.18	-6.22	-7.96
1996	-2.86	2.95	-5.65	5.14	-10.79
1996 ^a	-2.62	2.95	-5.42	5.14	-10.56
1997	-8.95	2.29	-10.99	6.76	-17.75

a. Including the Tesobono debt as part of the external and not the internal debt.

Source: Estimated with data from Tables A1, A13, A23, B1, B4 and B5.

Table B12. Amortisation Schedule of Public External Debt, 1982-2006
(before and after the 1982-83, 1984, 1986, and 1989-90 negotiations, million dollars)

	1982-83 MYRA ^a		1983-84 MYRA ^a		1986-87 MYRA ^a		1989-90 Package ^b	
	Before	After	Before	After	Before	After	Before	After
1982	8144.4 ^c	584.9	-	-	-	-	-	-
1983	8960.2	1475.2	-	-	-	-	-	-
1984	5367.9	1655.0	-	-	-	-	-	-
1985	9672.1	10172.0	9370.8	3221.2	-	-	-	-
1986	5148.0	8497.8	8498.0	1565.0	1208	258	-	-
1987	7525.4	13728.0	13468.8	3684.5	513	0	-	-
1988	4670.1	10785.0	11778.0	2443.0	1016	0	-	-
1989	3521.2	9129.2	10097.4	3771.0	3000	572	-	-
1990	1129.1	9087.0	8031.6	4859.0	3499	1897	2367	0
1991	3161.1 ^d	5333.3 ^d	1802.2	5290.0	4291	1897	5288	0
1992	-	-	1507.4	5496.3	4803	1897	2612	0
1993	-	-	1270.4	5760.5	5293	1897	2566	0
1994	-	-	842.8	5910.3	5492	1606	2042	0
1995	-	-	358.9	5784.0	5582	1026	1521	0
1996	-	-	358.8	5958.0	5811	2623	3079	730
1997	-	-	358.7	6484.0	6091	1872	2432	867
1998	-	-	358.7	6173.0	6118	2666	3112	906
1999	-	-	1275.5 ^e	2978.2 ^e	0	3182	3080	945
2000	-	-	-	-	0	3672	3352	945
2001	-	-	-	-	0	3652	4187	2772
2002	-	-	-	-	0	5609	n.a.	n.a.
2003	-	-	-	-	0	5839	n.a.	n.a.
2004	-	-	-	-	0	6120	n.a.	n.a.
2005	-	-	-	-	0	3072	n.a.	n.a.
2006	-	-	-	-	0	3072	n.a.	n.a.

Note 1: As it is quite evident, there is no coincidence between the "After" column and the "Before" column of the following negotiation, as it should be the case. No source provides any explanation for these discrepancies.

Note 2: It must be pointed out that the amortisation schedule presented just after the negotiation was concluded in principle was different from the one when it was signed. This second one is the schedule included in the table.

a. Multi-Year Rescheduling Agreement with additional "involuntary" lending.

b. Exchange of debt for bonds with debt or debt service reduction plus new credits.

c. Amortisations from August 20 to December 31.

d. 1991 and after.

e. 1999 and after.

Source: Nacional Financiera (1990, 454) for 1982-83; Banco de México (1985b, 122) for 1983-84; Ortiz Dietz (1995, V-13) for 1986-87, and Gurria (1993, 251) for 1989-90.

Table B13. Amortisation Schedule of Public External Debt, 1996-2007^a
(million dollars)

Concept / Year	1996	1997	1998	1999	2000	2001
TOTAL	13565.4	9811.3	11466.5	9379.4	6058.8	3529.1
Commercial Banks	3016.1	534.9	555.4	660.2	600.2	627.7
Rescheduled	183.5	265.7	360.6	359.4	320.9	355.2
Non-Rescheduled	2831.5	184.2	50.3	20.4	0.4	0.5
Direct and Syndicated	145.2	184.2	50.3	20.4	0.4	0.5
Short Term	1701.3	0.0	0.0	0.0	0.0	0.0
Bankers Acceptances	985.0	0.0	0.0	0.0	0.0	0.0
New Money	1.1	85.0	144.5	280.4	278.9	272
1983-1987	1.1	11.5	28.2	162.1	160.5	153.6
1990-1991	0.0	73.5	116.3	118.3	118.4	118.4
Other Credits	10549.3	9276.4	10911.1	8719.2	5458.6	2901.4
World Bank and IADB	1953.9	2083.1	2056.6	2010.8	1849.4	1694.3
Bilateral	4672.3	1966.0	1822.5	1642.8	1261.8	924.2
Private Bonds	4.6	0.0	0.0	0.0	0.0	0.0
Suppliers	17.3	11.9	8.3	10.7	10.3	10.3
Total Public Bonds	3901.2	3560.4	3,418.7	699.9	1452.1	272.6
Public Emissions	830.9	1008.0	1,927.9	677.0	438.9	200.7
Med.-Term Pagares	1179.2	1532.5	1,091.9	0.0	281.2	0.0
New Govern. Bonds	1891.1	1019.9	398.9	22.9	732.0	71.9
Exchange Stab. Fund	0.0	1655.0	3605.0	4355.0	885.0	0.0
	2002	2003	2004	2005	2006	2007
TOTAL	3036.5	2185.5	2767.8	1403.7	1346.3	733.7
Commercial Banks	560.7	527.9	539.6	210.6	143.4	0
Rescheduled	403.2	408.8	420.4	177.2	143	0
Non-Rescheduled	0.7	0.7	0.8	0.4	0.4	0
Direct and Syndicated	0.7	0.7	0.8	0.4	0.4	0
Short Term	0	0	0	0	0	0
Bankers Acceptances	0	0	0	0	0	0
New Money	156.8	118.4	118.4	33	0	0
1983-1987	38.4	0	0	0	0	0
1990-1991	118.4	118.4	118.4	33	0	0
Other Credits	2475.8	1657.6	2228.2	1193.1	1202.9	733.7
World Bank and IADB	1524.8	1048.9	947.4	933.4	899.3	640.7
Bilateral	590.7	487.9	378.5	259.7	227.1	93.0
Private Bonds	0.0	0.0	0.0	0.0	0.0	0.0
Suppliers	10.3	7.5	2.3	0.0	0.0	0.0
Total Public Bonds	350.0	113.3	900.0	0.0	76.5	0.0
Public Emissions	100.0	113.3	900.0	0.0	76.5	0.0
Med.-Term Pagares	0.0	0.0	0.0	0.0	0.0	0.0
New Govern. Bonds	250.0	0.0	0.0	0.0	0.0	0.0
Exchange Stab. Fund	0.0	0.0	0.0	0.0	0.0	0.0

a. as of 31 December, 1995.
Source: SHCP(1996d, March).

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
NAFINSA and BANOBRAS	19.04.71	\$100.0	n.a.	8	n.a.	N.M. Rothschild & Sons; Rothschild Intercontinental Bank; BANCOMER; BANAMEX.
PEMEX	05.71	\$15.0	n.a.	7	n.a.	Wells Fargo Bank; Hambros Bank; Western American Bank (Europe).
PEMEX	10.71	\$25.0	n.a.	7	n.a.	n.a.
BANOBRAS	11.71	\$20.0	n.a.	5	n.a.	n.a.
CFE, NAFINSA and PEMEX	20.12.71	\$120.0	1.250	10	n.a.	Bank of America.
PEMEX	01.72	\$40.0	n.a.	7	n.a.	n.a.
FINASA	09.72	\$60.0	n.a.	n.a.	n.a.	French American Banking Corp.
PEMEX	01.73	\$10.0	0.750	10	n.a.	Singer & Friedlander.
PEMEX	04.73	\$15.0	n.a.	10	n.a.	Union Bank.
NAFINSA	04.73	\$35.0	0.750	13	n.a.	Kredietbank Luxembourgeoise.
PEMEX	04.73	\$20.0	n.a.	10	n.a.	n.a.
CFE	25.04.73	\$20.0	n.a.	10	n.a.	Loeb, Rhoades & Co.
CFE	06.73	\$25.0	n.a.	14	n.a.	IBJ.
CFE	07.73	\$10.0	n.a.	n.a.	n.a.	Loeb, Rhoades & Co.
BANOBRAS	18.07.73	\$300.0	0.500 0.625 0.750	3 3 6=12	n.a.	Chemical Bank (agent); First Boston (Europe); Kuhn, Loeb & Co.; LTCB; Manufacturers Hanover.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	09.73	\$50.0	0.625	15	n.a.	Banque Européenne de Tokyo; Bank of Tokyo; IBJ.
NAFINSA	09.73	\$10.0	n.a.	15	n.a.	IBJ.
PEMEX	09.73	\$30.0	0.500 0.625	4 6=10	n.a.	Franklin National Bank (agent); Loeb, Rhoades & Co; Hill Samuel & Co.
FINASA	10.73	\$75.0	n.a.	n.a.	n.a.	French American Banking Corp.
CONASUPO	10.73	\$21.5	n.a.	n.a.	n.a.	French American Banking Corp.
PEMEX	10.73	\$25.0	n.a.	5	n.a.	Banque de Bruxelles.
PEMEX	11.73	\$30.0	n.a.	5	n.a.	Toronto Dominion Bank.
PEMEX	11.73	\$10.0	n.a.	10	n.a.	Dai-Ichi Kangyo Bank.
PEMEX	11.73	\$15.0	n.a.	15	n.a.	Sumitomo Bank.
UMS	12.73	\$150.0	n.a.	n.a.	n.a.	Wm. Brandt's Sons & Co.
CFE	12.73	\$25.0	n.a.	15	n.a.	IBJ.
CFE	12.73	\$25.0	n.a.	12	n.a.	Bank of Montreal (agent); Loeb, Rhoades & Co.
CFE	12.73	\$25.0	n.a.	15	n.a.	Taiyo Kobe Bank; Overseas Investors Inc.
PEMEX	12.73	\$25.0	0.500 0.625	5 5=10	n.a.	Crédit Lyonnais; Banque Commerciale pour l'Europe du Nord.
NAFINSA	12.73	\$25.0	n.a.	10	n.a.	BEC; Société Générale.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	12.73	\$25.0	0.500- 0.625 0.625	10 n.a. =13	n.a.	Singer & Friedlander.
UMS	16.01.74	\$500.0	0.500 0.625	4 3=7	n.a.	European American Bank and Trust Co. (agent); Kuhn, Loeb & Co.; First Boston (Europe); Dai-Ichi Kangyo Bank; European Banking Co.; Fuji Bank.
CFE	03.74	\$25.0	0.500 0.625 0.750	2 2 8=12	n.a.	Sanwa Bank; Goldman Sachs.
PEMEX	03.74	\$25.0	0.500	10	n.a.	Banque de Bruxelles; Dresdner Bank.
BANOBRAS	03.74	\$25.0	1.000	8	n.a.	Orion Banking Corp.
PEMEX	04.74	\$100.0	0.625	12	n.a.	Bank of America.
CFE	05.74	\$100.0	0.750	10	n.a.	Chase Manhattan Bank; Orion Banking Group; WestLB.
BANOBRAS	20.06.74	\$100.0	0.750	10	n.a.	Loeb, Rhoades & Co.; Bankers Trust; Bank of Montreal; Taiyo Kobe Bank.
BANOBRAS	07.74	\$45.0	1.000	8	n.a.	Libra Bank (agent); Orion Banking Group; Royal Bank of Canada.
BANAGRO	09.74	\$16.0	1.125	5	n.a.	n.a.
NAFINSA	10.74	\$30.0	1.000	7	n.a.	Libra Bank (agent); BANCOMER.
BANOBRAS	30.10.74	\$50.0	1.250	8	n.a.	Bank of America (agent); Blyth Eastman Dillon & Co.; Wobaco Investments; Lazard Brothers & Co.; Bank of Montreal; Crocker National Bank.
CFE	10.74	\$60.0	1.250	5	n.a.	Libra Bank (agent); Crocker National Bank; WestLB.
UMS	12.74	\$170.0	1.375	5	0.500 (c)	Morgan Guaranty Trust Co. (agent); First Boston (Europe); Kuhn, Loeb & Co.; Chemical Bank; EULABANK; Royal Bank of Canada.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
AHMSA	12.74	\$84.4	1.125	8	0.500 (c)	Brandts; Bank of America; Lloyds Bank Int.; London Multinational Bank; Royal Bank of Canada; United California Bank.
AHMSA ^o	12.74	£53.039 (\$124.6)	n.a.	n.a.	n.a.	Brandts (agent); Lloyds Bank. ^j
BANAGRO	02.75	\$29.0	1.500	3	n.a.	Singer & Friedlander.
NAFINSA	03.75	\$25.0	1.500	5	n.a.	Crédit Lyonnais; Int. Commercial Bank; UBAF.
BANOBRAS	03.75	\$25.0	1.500	5	n.a.	Royal Bank of Canada. ^j
NAFINSA	03.75	\$25.0	1.500	3	0.250 (p)	CCF; Kredietbank; Kredietbank Luxembourgaise.
UMS	16.05.75	\$200.0	1.500	5	0.500 (c) 0.250 (p)	Morgan Guaranty Trust Co. (agent); Citicorp Int. Bank; Chase Manhattan Bank; BANCOMER; Banco de Londres y México; BANAMEX.
PEMEX	21.05.75	\$135.0	1.500	5	0.375 (p)	Bankers Trust (agent); First Boston (Europe); Kuhn, Loeb and Co.; Barclays Bank Int.; Royal Bank of Canada; WestLB.
FINASA	05.75	\$20.0	1.375	3	n.a.	First Boston (Europe); Kuhn, Loeb & Co.; Allied Bank Int.; Bank of America; National Bank of North America.
NAFINSA	05.75	\$25.0	1.500	5	n.a.	Baring Brothers & Co.; INTERMEX; London Multinational Bank; Chemical Bank.
NAFINSA	07.75	\$100.0	1.500	5	0.500 (c)	Wells Fargo Bank (agent); Libra Bank; Iran Overseas Investment Bank; Bank of Montreal.
SICARTSA ⁱ	07.75	\$30.0	1.500	7	n.a.	Lazard Freres & Cie.
FINASA	07.75	\$10.0	n.a.	n.a.	n.a.	Lazard Brothers & Co.
TELMEX	08.75	\$100.0	1.500	5	0.125 (p1) 0.250 (p2)	Bank of America (agent); Skandinaviska Enskilda Banken; INTERMEX.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
BANOBRAS	29.08.75	\$100.0	1.500	5	0.125 (p1) 0.250 (p2) 0.375 (p3) 0.500 (p4)	Bank of America (agent); Kuhn, Loeb & Co.; First Boston (Europe); Bank of Nova Scotia; Bankers Trust; Libra Bank; Midland Bank; Rabomerica Int. Bank.
BANRURAL	09.75	\$20.0	1.500	5	0.125 (p1) 0.250 (p2)	Singer & Friedlander; Toronto Dominion Bank; INTERMEX.
FERTICA	09.75	\$15.0	1.625	5	n.a.	Atlantic Int. Bank.
PEMEX	10.75	\$380.0	1.500	5	0.125 (p1) 0.250 (p2) 0.375 (p3) 0.500 (p4)	Chase Manhattan Bank (agent); Bank of America; Chemical Bank; Citicorp Int. Bank; Continental Bank; First Chicago Panama; Morgan Guaranty Trust Co.; Royal Bank of Canada; WestLB.
NAFINSA	10.75	\$150.0	1.500	5	0.500 (c) 0.125 (p1) 0.250 (p2) 0.375 (p3) 0.500 (p4)	Manufacturers Hanover; Brandts; CIBC; Dresdner Bank.
NAFINSA	10.75	\$20.0	1.500	5	n.a.	Barclays Bank Int.
NAFINSA	10.75	\$20.0	1.500	5	0.500 (p) to 0.125 (p)	Western American Bank (Europe) (agent); Security Pacific National Bank.
CONASUPO	10.75	\$24.0	1.500	5	n.a.	Lloyds Bank Int.
NAFINSA	11.75	\$40.0	1.250	4	n.a.	DG Bank (agent); London & Continental Bankers.
PEMEX	11.75	\$76.0	1.250	2	n.a.	INTERMEX; Singer & Friedlander; Wobaco Investments; CIBC; Iran Overseas Investment Bank; First National Bank of Memphis; National Bank of Detroit.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
UMS	11.75	\$300.0	1.500	5	0.500 (c) 0.125 (p1) 0.375 (p2) 0.625 (p3) 0.750 (p4)	Compagnie Financière de la Deutsche Bank (agent); AMRO; Bayerische Landesbank; Bayerische Vereinsbank Int.; CIBC; Commerzbank; DG Bank; Société Générale; Wells Fargo Bank.
BANOBRAS	12.75	\$40.0	1.250 (10.500) ^k	2	0.125 (p)	Singer & Friedlander; INTERMEX; J. Henry Schroeder & Co.
BANOBRAS	n.a/75	\$15.0	1.500	5	n.a.	Commerzbank; First Chicago.
CFE	n.a/75	\$10.0	1.250	2	n.a.	Kredietbank; CCF.
CFE ⁱ	n.a/75	\$5.3	1.500	9	n.a.	Wobaco Investments; INTERMEX.
NAFINSA	02.76	\$110.0	1.250	2	0.125 (p)	J. Henry Schroeder Banking Corp. (New York); J. Henry Schroeder Wagg & Co. (London); J. Henry Schroeder & Co. (Beirut); J. Henry Schroeder Bank (Zurich).
BANOBRAS	03.76	\$220.0	1.500	5	0.500 (c) 0.125 (p1) 0.375 (p2) 0.625 (p3) 0.750 (p4)	Libra Bank (agent); Chase Manhattan Bank; BANCOMER; CIBC; Citicorp. Int. Group; Western American Bank (Europe).
CONASUPO	03.76	\$25.0	1.250	2	0.125 (p)	n.a.
CFE	04.76	\$4.7	1.750	6	n.a.	Wobaco Investments. ^h
NAFINSA	04.76	\$29.0	1.375	5	0.250 (p)	Bank of Montreal. ^j

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	05.76	\$300.0	1.500	5	0.250 (p1) 0.375 (p2) 0.500 (p3) 0.750 (p4)	Chase Manhattan (agent); Citicorp Int. Group; Security Pacific National Bank; Bank of Montreal; BANAMEX; First Chicago Panama; Bank of Nova Scotia Int.; Morgan Guaranty Trust Co.; ABN; Barclays Bank Int.; Commerzbank; Continental Bank; Crocker National Bank.
FINASA	07.76	\$30.0	1.375	3	n.a.	First Boston (Europe); Kuhn, Loeb & Co.; Arab Finance Corp.; Kuwait Int. Investment Co.; National Commercial Bank; UBAF.
NAFINSA	08.76	\$175.0	1.750	7	0.500 (c) 0.250 (p1) 0.375 (p2) 0.500 (p3) 0.625 (p4)	Royal Bank of Canada (agent); Libra Bank; Bankers Trust Int.; Citicorp Int. Group; Grindlay Brandts; Banco Internacional; Morgan Guaranty Trust Co.; Bank of Montreal; First Chicago Panama; BANCOMER.
NAFINSA	08.76	\$35.0	n.a.	5	0.500 (c) 0.250 (p1) 0.375 (p2) 0.500 (p3) 0.625 (p4)	Royal Bank of Canada (agent); Libra Bank; Bankers Trust Int.; Citicorp Int. Group; Grindlay Brandts; Banco Internacional; Morgan Guaranty Trust Co.; Bank of Montreal; First Chicago Panama; BANCOMER.
FINASA	09.76	\$170.0	1.500	5	0.125 (p1) 0.687 (p2) 0.777 (p3)	Bank of America (agent); Bank of California; INTERMEX; Lloyds Bank California; Security Pacific Bank; Union Bank; United California Bank; Wells Fargo Bank.
BANCOMEXT	09.76	\$55.0	n.a.	n.a.	n.a.	INTERMEX (agent); B.A.I.I.
UMS	11.76	\$400.0	1.500	5	0.750 (c) 0.125 (p1)	Bank of America (agent); ABN; Bank of Montreal; Bank of Nova Scotia Int.; Bankers Trust Int.; CIBC; Chase Manhattan; Chemical Bank; Citicorp Int. Group; Compagnie Financière de la Deutsche Bank; Continental Bank (Continental Illinois); First Chicago Panama; Manufacturers Hanover; Morgan Guaranty Trust Co.; Royal Bank of Canada; Security Pacific; SBC; Toronto Dominion Bank; UBS.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
UMS	11.76	\$400.0	1.750	7	0.750 (c) 0.250 (p1) 0.375 (p2) 0.500 (p3) 0.625 (p4)	Bank of America (agent); ABN; Bank of Montreal; Bank of Nova Scotia Int.; Bankers Trust Int.; CIBC; Chase Manhattan; Chemical Bank; Citicorp Int. Group; Compagnie Financière de la Deutsche Bank; Continental Bank (Continental Illinois); First Chicago Panama; Manufacturers Hanover; Morgan Guaranty Trust Co.; Royal Bank of Canada; Security Pacific; SBC; Toronto Dominion Bank; UBS.
BANOBRAS	02.77	SWF50.0 (\$19.8)	1.500 (6.500) ^k	5	n.a.	Singer & Friedlander (Zurich); Kredietbank; INDOSUEZ.
NAFINSA	03.77	SWF100.0 (\$39.2)	1.750	5	0.250 (p1) 0.500 (p2)	Singer & Friedlander (Zurich). ^h
PEMEX	21.03.77	\$350.0	1.500 1.625	1.5 3.5=5	0.125 (p1) 0.250 (p2) 0.375 (p3) 0.500 (p4)	Citicorp Int. Bank (agent); Chase Manhattan; Citicorp Int. Group; WestLB; Bank of America; BNP; Société Générale; Crocker National Bank; Toronto Dominion Bank; Bank of Montreal; Security Pacific Bank; CIBC; First Chicago Panama; Royal Bank of Canada; BANCOMER; Libra Bank.
BANOBRAS	05.77	\$150.0	1.500 1.625	=5	n.a.	Bankers Trust (agent); Banco de Santander; Bank of Montreal; Bankers Trust Int.; Dresdner Bank; Lloyds Bank Int.; Orion Bank.
BANRURAL	06.77	SWF90.0 (\$36.2)	1.500 (6.500) ^k	7	n.a.	Singer & Friedlander (Zurich); Bank Julius Baer Int.; CIBC; Kleinwort, Benson.
BANRURAL	07.77	DM50.0 (\$21.9)	1.500 1.625	1.5 3.5=5	n.a.	London & Continental Bankers (agent).
NAFINSA	07.77	\$383.0	1.250 1.375 1.500 1.750	2 2 2 4=10	n.a.	Libra Bank (agent); Lloyds Bank Int. (Agent); BANCOMER; Banco Internacional; Bank of Tokyo; BNP; Barclays Bank Int.; Chase Manhattan; Kredietbank; Royal Bank of Canada; Société Générale, BANAMEX; INTERMEX; BEC/Société Générale de Banque; Chemical Bank; Merrill Lynch Int. Bank; Mitsubishi Trust & Banking Corp.; NatWest.
NAFINSA	07.77	¥12,000.0 (\$45.32)	n.a.	n.a.	n.a.	Libra Bank (agent); Bank of Tokyo (Agent); Lloyds Bank Int.; BANCOMER; Banco Internacional; BNP; Barclays Bank Int.; Chase Manhattan; Kredietbank; Royal Bank of Canada; Société Générale, BANAMEX-INTERMEX; BEC-Société Générale de Banque; Chemical Bank; Merrill Lynch Int. Bank; Mitsubishi Trust & Banking Corp.; NatWest.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
UMS	07.77	DM150.0 (\$65.7)	n.a.	n.a.	n.a.	WestLB. ^j
BANCOMEXT	08.77	\$100.0	n.a.	n.a.	n.a.	Wells Fargo Bank (agent); American Express Int. Banking Corp.; Bank of California; First National Bank of Boston; Security Pacific Bank; Banco de Bilbao; BfG; Industrial National Bank of Rhode Island.
CFE	08.77	\$34.0	n.a.	n.a.	n.a.	European Banking Corp.; Bayerische Vereinsbank.
PIPSA ⁱ	08.77	\$25.0	1.750 1.875	3.5 3.5=7	n.a.	Lloyds Bank Int.; Morgan Guaranty Trust Co.; BANAMEX; INTERMEX.
TELMEX	08.77	\$25.0	1.750	7	n.a.	n.a.
BANRURAL	09.77	DM100.0 (\$43.0)	1.500	5	0.250 (p1)	WestLB (agent); Libra Bank.
BANRURAL	09.77	\$75.0	1.750	3	n.a.	Bankers Trust Int.; Bank of Nova Scotia; Nippon Credit Bank.
PEMEX	09.77	\$50.0	n.a.	n.a.	n.a.	Bank of Montreal ^h
UMS	11.77	\$1200.0	1.750	7	1.000 (m) 0.125 (p1) 0.875 (p2)	Morgan Guaranty Trust Co. (agent); Abu Dhabi Investment Co.; AMRO; Banco do Brasil; BfG; Bank of America; Bank of Montreal; Bank of Nova Scotia Int.; Bank of Tokyo; BNP; Barclays Bank Int.; Bayerische Landesbank; CIBC; Chase Manhattan; Chemical Bank; Citicorp Int. Group; Commerzbank; Compagnie Financière de la Deutsche Bank; DG Bank; Dresdner Bank; First National Bank of Boston; Grindlay Brandts; IBJ; Lloyds Bank Int.; LTCB; Manufacturers Hanover; Midland Bank; NatWest; Société Générale de Banque-Generale Bankmaatschappij; SBC; Toronto Dominion Bank; UBS; WestLB.
PEMEX	12.77	¥25,000 (\$103.6)	0.500 ⁱ	8	n.a.	Bank of Tokyo (agent). ^j
CFE	01.78	\$20.0	1.375	3	n.a.	The Inter-Alpha Group of Banks.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	02.78	\$65.0	1.000	7	n.a.	Bank of Tokyo; Sumitomo Bank; Mitsui Bank; Mitsubishi; LTCB; Dai-Ichi Kangyo Bank. ^j
BANOBRAS	02.78	SR100.0 (\$28.4)	n.a.	5	n.a.	B.A.I.I.
PEMEX	03.78	\$15.0	1.750	7	n.a.	Merrill Lynch Int. Bank
PEMEX	04.78	\$1000.0	1.250	10	0.750 (m) 0.125 (p1) 0.250 (p2) 0.375 (p3)	BankAmerica Int. Group; Bank of Montreal; Bank of Tokyo; Bankers Trust Int.; CIBC; Chemical Bank Int.; Citicorp Int. Group; European American Bank and Trust Co.; IBJ; Lloyds Bank Int.; Manufacturers Hanover; NatWest; Royal Bank of Canada; SBC; WestLB; Commerzbank; Crédit Lyonnais; Midland Bank; BANAMEX; Multibanco Comermex.
FINASA	05.78	DM100.0 (\$47.39)	6.375 ^m	5	n.a.	Bayerische Landesbank. ^j
BANCOMEXT	06.78	\$700.0	1.000 1.125 1.250	3 3 4=10	0.250 (o) 0.063 (p1) 0.313 (p2)	Bank of Montreal (agent); Citicorp Int. Group; Lloyds Bank Int.; INTERMEX; Mellon Bank; Al-UBAF Group; Libra Bank.
CFE	06.78	\$25.0	1.375	3	n.a.	Royal Bank of Canada. ^j
BANXICO ⁿ	06.78	\$50.0	1.500	7	n.a.	Chase Manhattan Bank. ^h
NAFINSA	06.78	\$265.0	1.250	10	n.a.	Bank of Tokyo; Bank of Yokohama; Fuji Bank; IBJ; LTCB; Mitsubishi Bank; Sanwa Bank; Tokai Bank; Yasuda Trust and Banking Co.; Daiwa Bank; Kyowa Bank; Mitsui Bank; Saitama Bank; Tokyo Trust and Banking Co.
CFE	07.78	\$600.0	1.000	7	0.500 (c) 0.750 (o)	Morgan Guaranty Trust Co. (agent); WestLB; Citicorp Int. Group; CCF; DG Bank; Kredietbank; Royal Bank of Canada; Fuji Bank; NatWest; Toronto Dominion Bank.
BANRURAL	08.78	\$600.0	1.000	5	0.375 (m) 0.125 (p1)	Bankers Trust Int.; Libra Bank; Lloyds Bank Int.; London & Continental Bankers; Royal Bank of Canada; Bank of Nova Scotia Int.; DG Bank; NatWest; Chase Manhattan; Mitsubishi Bank; Toronto Dominion Bank.
PEMEX	08.78	\$56.5	n.a.	n.a.	n.a.	Syndicate of Mexican Banks. ^j

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	08.78	\$50.0	n.a.	n.a.	n.a.	Toronto Dominion Bank. ^h
PEMEX	09.78	\$25.0	n.a.	5	n.a.	Barclays Bank Int. ^h
PEMEX	09.78	\$50.0	0.750	5	0.750 (m)	Commerzbank. ^h
SOMEX	09.78	\$25.0	1.000	5	n.a.	Deutsche Bank; BEC.
SOMEX	10.78	\$225.0	0.875	7	n.a.	BankAmerica Int. Group, Chemical Bank Int. Group. Lloyds Bank Int., Manufacturers Hanover, Orion Bank.
CFE	10.78	\$30.0	0.875	2	n.a.	Banque Belge.
FINASA	10.78	\$60.0	n.a.	5	n.a.	Rosenthal Int.
UMS	10.78	\$300.0	0.875 1.000	5 5=10	n.a.	Sanwa Bank; Dai-Ichi Kangyo Bank.
UMS	10.78	\$50.0	9.625 ^m	10	n.a.	Sanwa Bank. ^h
UMS	10.78	\$100.0	0.625	3	n.a.	IBJ. ^h
FINASA	11.78	\$225.0	1.000	7	n.a.	Citicorp Int. Group. ^h
PEMEX	11.78	\$51.0	0.875	5	n.a.	Bank of Tokyo.
UMS	11.78	¥20000 (\$104.5)	1.250	10	n.a.	Mitsubishi Bank; Chase Manhattan; Manufacturers Hanover; PARIBAS; NatWest; Deutsche Bank.
CONASUPO	12.78	\$15.0	1.500	2	n.a.	Rosenthal Int. ^h
BANOBRAS	12.78	\$500.0	0.750	8	0.063 (p1) 0.125 (p2) 0.188 (p3) 0.250 (p4)	Tokai Bank; Lloyds Bank Int.; Manufacturers Hanover; Bank of Nova Scotia; SBC; AMRO; Bank of Montreal; BNP; Standard Chartered Merchant Bank; UBS; Bank of America; Bank of Tokyo; Bayerische Landesbank; Toronto Dominion Bank; Dresdner Bank, NatWest, Mitsui Trust and Banking Co.; Sanwa Bank.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
Perforadora y Cons. Aguila	01.79	\$24.0	0.750	10	n.a.	Canadian American Bank; First Int. Bancshares; Libra Bank.
NAFINSA	01.79	\$25.0	1.000	10	n.a.	Grindlay Brandts.
NAFINSA	26.01.79	\$600.0	0.875	10	0.500 (c) 0.125 (p1) 0.188 (p2) 0.250 (p3)	Bank of America (agent); BankAmerica Int. Group; Bank of Montreal; Bank of Tokyo; Citicorp Int. Group; Dresdner Bank; Bank of Nova Scotia Group; CIBC; Toronto Dominion Bank; BNP; Grindlay Brandts; Barclays Bank Int.; Mellon Bank; UBS; Banco di Roma; First Chicago Panama; Nippon Credit Bank; Tokai Bank.
PEMEX	02.79	\$50.0	0.625	5	n.a.	UBS (agent).
TELMEX	02.79	\$15.0	1.125	10	n.a.	Sumitomo Bank; Sumitomo Trust and Banking Co.
PEMEX	22.03.79	\$240.0	0.500	3	0.188 (c)	BANAMEX; Banco do Brasil; Bank of Montreal; Bank of Tokyo Trust Co.; Crédit Lyonnais; Dai-Ichi Kangyo Bank; Midland Bank; Sanwa Int. Finance.
CFE	29.03.79	\$330.0	0.875	10	n.a.	Bank of Montreal (agent); Citicorp Int. Group; CCF; Fuji Bank; Morgan Guaranty Trust Co.; WestLB; ABN; Bank of Tokyo; BEC; INTERMEX; Mitsubishi Bank; BfG; PARIBAS; DG Bank; Lloyds Bank Int.; Toronto Dominion Bank.
CFE	29.03.79	\$270.0	1.000	12	n.a.	Bank of Montreal (agent); Citicorp Int. Group; CCF; Fuji Bank; Morgan Guaranty Trust Co.; WestLB; ABN; Bank of Tokyo; BEC; INTERMEX; Mitsubishi Bank; BfG; PARIBAS; DG Bank; Lloyds Bank Int.; Toronto Dominion Bank.
PEMEX	04.79	\$80.0	0.750	10	n.a.	Chemical Bank
PEMEX	04.79	\$40.0	n.a.	5	n.a.	American Express Int. Group; First Pennsylvania Bank; Lincoln First Bank; New England Merchants National Bank; Riggs National Bank of Washington DC; Rhode Island Hospital Trust National Bank; Shawmut Bank of Boston; State Street Bank & Co.
PEMEX	04.79	\$80.0	0.500	3	n.a.	Banque de la Société Financière Européenne.
CFE	05.79	\$50.0	0.875	10	n.a.	Sumitomo Bank; Daiwa Bank; Nippon Credit Bank; Saitama Bank

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
CFE	05.79	\$160.0	0.875	10	n.a.	Bank of Tokyo ^j
SOMEX	05.79	\$18.0	n.a.	n.a.	n.a.	Royal Bank of Canada. ^h
PEMEX	05.79	\$50.0	0.625	5	n.a.	Midland Bank. ^h
PEMEX	05.79	\$125.0	0.750	5	0.250 (o)	Barclays Bank Int.; Cie Luxembourgeoise de Dresdner Bank; Sumitomo Bank; Taiyo Kobe Bank; Tokai Bank.
PEMEX	05.79	\$50.0	0.625	5	n.a.	UBS (Securities).
PEMEX	05.79	\$50.0	0.500	3	n.a.	Wells Fargo Bank.
PEMEX	05.79	\$15.0	0.500	3	n.a.	Merrill Lynch Int. Bank.
PIPSA	05.79	\$6.4	n.a.	n.a.	n.a.	Royal Bank of Canada. ^h
UMS	04.05.79	\$500.0	0.375	2	n.a.	Société Générale.
FINASA	11.05.79	\$300.0	0.875	10	0.188 (p1) 0.250 (p2)	Bank of Montreal.
CFE	06.79	\$50.0	0.875	10	n.a.	Sumitomo Bank; Daiwa Bank; Nippon Credit Bank; Saitama Bank.
CFE	06.79	\$60.0	0.875	10	n.a.	Bank of Tokyo.
DINA ⁱ	06.79	\$35.0	7.250 ^m	3.5	n.a.	Williams & Glyn's Bank.
PEMEX	06.79	\$15.0	0.500	3	n.a.	Merrill Lynch Int. Bank; Manufacturers Hanover; Chemical Bank.
PEMEX	06.79	\$80.0	0.750	10	n.a.	Chemical Bank Int.
CFE	07.79	\$100.0	0.750	10	0.250 (m)	Commerzbank Int.
PEMEX	07.79	\$125.0	0.625	5	n.a.	Bank of Tokyo.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
PEMEX	07.79	\$50.0	0.625	7	n.a.	Banque Belge; BEC; Banque Belge pour l'Etranger; Banque Belge France; Banque Générale du Luxembourg; BEAL; European Arab Bank; Banque Belgo-Zairoise.
PEMEX	07.79	\$100.0	0.750	10	n.a.	LTCB
UMS	07.79	\$50.0	0.500	5	n.a.	Banco de Bilbao; Banco Exterior de España; Banco Hispano Americano; Banco Urquijo. ^j
BANOBRAS ^p	24.07.79	\$600.0	0.750	10	n.a.	Bankers Trust Int.
BANRURAL ^p	29.07.79	\$500.0	0.750	10	0.500 (c) 0.375 (o) 0.063 (p1) 0.125 (p2) 0.250 (p3)	Bank of America Int. Group; Bank of Montreal.
NAFINSA	08.79	\$100.0	0.750	10	n.a.	Chemical Bank.
CFE	23.08.79	\$100.0	0.625 0.750	5 5=10	0.313 (o)	IBJ (agent); Rosenthal Int.
PEMEX	09.79	\$2500.0	0.500 ^q	6	n.a.	Bank of America NT & SA (agent); Bank of Nova Scotia; BNP; Chemical Bank; Dai-Ichi Kangyo Bank; IBJ; LTCB; Mitsubishi Bank; NatWest; Société Générale; Tokai Bank; Bank of Montreal; Bank of Tokyo; CIBC; Crédit Lyonnais; Deutsche Bank; Irving Trust Co.; Manufacturers Hanover Trust Co.; Morgan Guaranty Int. Bank of Miami; Sanwa Bank; SBC; WestLB.
CFE	09.79	\$50.0	0.750	10	n.a.	Kredietbank Int. Group. ^h
NAFINSA	09.79	\$40.0	0.625	7	n.a.	Sanwa Bank.
PEMEX	09.79	\$120.0	n.a.	n.a.	n.a.	Banca Serfín.
UMS	14.09.79	\$600.0	0.500	6	n.a.	WestLB (agent); Bank of Tokyo; CIBC; Chase Manhattan Bank; Citicorp Int. Bank; Lloyds Bank Int.; Morgan Guaranty Trust Co.; NatWest; Royal Bank of Canada; UBS.
CFE	10.79	\$100.0	0.750	10	n.a.	LTCB (agent). Bankers Trust; Crédit Lyonnais; WestLB.

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Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
FERTIMEX	10.79	\$90.0	0.750	10	n.a.	BANAMEX.
NAFINSA	10.79	\$50.0	0.500	5	n.a.	Lloyds Bank Int.
CFE	11.79	\$100.0	0.875 1.000	5 6=11	n.a.	Bank of Tokyo; Mitsubishi Bank.
CFE	11.79	\$100.0	0.750 0.875	5 5=10	n.a.	Bank of Tokyo; Mitsubishi Bank.
PEMEX	11.79	DM200.0 (\$113.0)	0.500	5	n.a.	Deutsche Bank Compagnie Financière Luxembourg.
PEMEX	11.79	\$50.0	0.500	5	n.a.	Deutsche Bank Compagnie Financière Luxembourg.
CFE	29.11.79	\$400.0	0.625	12	0.375 (o)	WestLB (agent); Chase Manhattan Bank; Citicorp Int. Group; Lloyds Bank Int.; Morgan Guaranty Trust Co.; SBC; Bank of Montreal.
TELMEX	12.79	\$47.0	0.750	10	n.a.	Wells Fargo.
UMS	03.12.79	\$250.0	0.625 0.750	5 5=10	0.063 (p1) 0.125 (p2)	Société Générale de Banque/Banque Belge; Deutsche Bank; AMRO; BEC; European Banking Co.; Mitsubishi Bank; CSFB; Banque Générale du Luxembourg; EIB; PARIBAS; INTERMEX .
NAFINSA	12.79	\$100.0	0.500	5	n.a.	Sumitomo Bank (agent); Bankers Trust; CIBC; Kyowa Bank; Toronto Dominion Bank; Yasuda Trust and Finance; Dresdner Bank; First National Bank of Atlanta.
FINASA	16.04.80	\$250.0	0.500	3	n.a.	Bank of America; Bankers Trust Int.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
UMS	18.05.80	\$250.0	0.500 0.625	6 2=8	0.375 (c) 0.500 (m) 0.375 (o) 0.063 (p1) 0.125 (p2) 0.188 (p3) 0.250 (p4)	BNP; Crédit Lyonnais; Société Générale. ^j
UMS	21.05.80	\$300.0	0.500 0.625	6 2=8	0.375 (c) 0.500 (m) 0.375 (o)	Deutsche Bank Compagnie Financière Luxembourg; Commerzbank; Bayerische Landesbank Int.; DG Bank Int.; Cie. Luxembourgeoise de Dresdner Bank; WestLB Int. ^j
UMS	28.05.80	\$250.0	0.500	7	0.500 (m)	Bank of Montreal ^h
AHMSA	10.06.80	\$50.0	0.750 0.875	5 5=10	0.375 (c) 0.125 (p1) 0.188 (p2) 0.250 (p3)	Royal Bank of Canada (agent); Crocker National Bank; Crédit Lyonnais (London Branch); Grindlays Bank; NatWest; Sumitomo Bank of California.
PEMEX	11.06.80	\$50.0	n.a.	1.5	n.a.	Baring Brothers.
CFE ^p	21.07.80	\$300.0	0.625 0.500	5 5=10	0.500 (m) 0.125 (p1) 0.250 (p2)	WestLB (agent); Bank of Montreal; Bank of Tokyo; CCF; NatWest.
FINASA	12.08.80	\$325.0	0.500 0.625	5 3=8	0.063 (p1) 0.125 (p2) 0.250 (p3)	INTERMEX; Citicorp Int. Group; Dai-Ichi Kangyo Bank; Gulf Int. Bank; UBS.
BANCOMEXT	21.08.80	\$50.0	0.500	6	0.125 (m)	Citibank ^h
BANPESCA	09.80	\$15.0	0.250	3.5	n.a.	Libra Bank ^h
PEMEX	25.09.80	\$500.0	0.250	2	0.250 (o)	Société Générale; BNP; Crédit Lyonnais; PARIBAS; CCF; Banque Française du Commerce Extérieur ^j

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
BANCOMEXT	13.10.80	\$350.0	0.500 or 0.375 ^f	7	0.500 (c) 0.625 (m) 0.125 (p1) 0.250 (p2) 0.313 (p3)	INTERMEX (agent); BANAMEX; BankAmerica Int. Group; Citicorp Int. Group; Crédit Agricole; Dai-Ichi Kangyo Bank; Development Bank of Singapore; ARLABANK; Associated Japanese Bank (Int.); Banco do Brasil; Banco Exterior de España; PARIBAS; Citicorp Int. Bank; Credit Suisse; Harris Trust and Savings Bank; Hypobank Int.; Kleinwort, Benson; Mitsui Bank; NatWest; Northern Trust Co.; Pkbanken Int.; Security Pacific Bank; Standard Chartered Bank; WestLB; Wurttembergische Kommunale Landesbank.
BANCOMEXT	14.10.80	\$30.0	0.250	5	n.a.	Chemical Bank.
BANOBRAS	22.10.80	\$100.0	0.500 0.625	5 3=8	0.500 (c) 0.250 (m)	BBL; BNP; Barclays Bank Int.; Bayerische Landesbank; Citibank; Nippon Credit Bank.
UMS	13.11.80	\$100.0	0.500 0.625	6 2=8	0.375 (o)	Mitsubishi Bank (agent); Chase Manhattan Bank; Crédit Lyonnais; Morgan Guaranty Trust Co.
PEMEX ^p	19.11.80	\$500.0	0.250	7.5	0.500 (c) 0.250 (m) 1.125 (o) 0.050 (p1) 0.100 (p2) 0.150 (p3) 0.200 (p4)	Morgan Guaranty Trust Co. (agent) ABN; Bank of Tokyo; Banque Belge/Société Générale de Banque; Crédit Lyonnais; Manufacturers Hanover; NatWest; Mitsui Bank; Royal Bank of Canada (London); SBC.
PEMEX	16.12.80	\$300.0	0.250	2	n.a.	INTERMEX.
DINA	12.80	\$25.0	n.a.	n.a.	n.a.	BANAMEX.
CFE	20.01.81	\$239.0	0.500	6	n.a.	Midland Bank (agent); BEC; Fuji Bank; Midland Bank Int.; National Bank of Canada; WestLB; PARIBAS, Bayerische Vereinsbank; Chemical Bank Int.; Citicorp Int. Group; Continental Bank of Canada; Dai-Ichi Kangyo Bank; European American Bank; UBAF.
CFE	20.01.81	\$111.0	0.375 ^f	6	n.a.	Midland Bank (agent); BEC; Fuji Bank; Midland Bank Int.; National Bank of Canada; WestLB; PARIBAS, Bayerische Vereinsbank; Chemical Bank Int.; Citicorp Int. Group; Continental Bank of Canada; Dai-Ichi Kangyo Bank; European American Bank; UBAF.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
BANRURAL	23.02.81	\$350.0	0.500 or 0.375 ^f	8	n.a.	Crédit Agricole (agent); INTERMEX; Bank of America.; Société Générale de Banque/Banque Belge; Standard Chartered Bank; Crédit Suisse; Dai-Ichi Kangyo Bank; ARLABANK; Banco Internacional; Bank of Nova Scotia Group; Bank of Virginia; European Arab Bank; Kleinwort, Benson; Marine Midland; National Bank of Canada; Republic National Bank of Dallas; Seattle First National Bank; Taiyo Kobe Bank; United California Bank.
DINA	03.81	\$60.0	n.a.	n.a.	n.a.	Williams & Glyn's Bank Ltd. (agent).
BANPESCA	23.03.81	\$51.0	0.500 0.625	5 3=8	n.a.	Crocker National Bank; BANCOMER; Crédit Lyonnais; Mitsubishi Trust & Banking; Texas Commerce Bank.
AHMSA	30.03.81	\$20.0	n.a.	10	n.a.	Creditanstalt Bankverein.
AHMSA	30.03.81	\$21.1	n.a.	10	n.a.	Creditanstalt Bankverein.
BANOBRAS	13.04.81	\$100.0	0.500	8	n.a.	Citibank; Sumitomo Bank; Banco de Bilbao; Orion Bank; Banque NMB-Interunion; Citicorp Int. (Panama).
NAFinsa	13.05.81	\$250.0	0.500 or 0.3125 ^f	10	n.a.	BankAmerica Int. Group; Bank of Tokyo; Bank of Nova Scotia; BEC; Chemical Bank; Hokkaido Takushoku Bank; IBJ; Kyowa Bank; Fuji Bank; Mitsui Trust & Banking; Orion Bank; Republic National Bank of New York; Trade Development Bank Overseas; Saitama Bank; Sanwa Bank; Taiyo Kobe Bank; Toyo Trust & Banking; Bank of Yokohama.
FERTIMEX	21.05.81	\$125.0	0.500 or 0.375 ^f	8	n.a.	BANAMEX.
PEMEX	30.06.81	\$4000.0	0.500 ^q	6	n.a.	Bank of America (agent); BankAmerica Int. Group; BANAMEX; Bank of Montreal; Bank of Nova Scotia; Bank of Tokyo; Barclays Bank Int.; CIBC; Chemical Bank Int. Group; Crédit Lyonnais; Dai-Ichi Kangyo Bank; Deutsche Bank (New York Branch); IBJ; LTCB; Manufacturers Hanover Merchant Banking Group; Mitsubishi Bank; Morgan Guaranty Int. Bank; Sanwa Bank; Société Générale; Tokai Bank; WestLB.
PEMEX	06.07.81	\$100.0	n.a.	7	n.a.	n.a.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
UMS	09.07.81	\$250.0	0.250 or 0.125 ^f	3	n.a.	BNP; Société Générale; Crédit Lyonnais; Crédit Industriel et Commercial; CCF.
UMS	09.07.81	\$55.0	7.000 ^m	3	n.a.	CCF; Crédit Lyonnais; Crédit Industriel et Commercial; INDOSUEZ; Banque Française du Commerce Extérieur.
BANCOMEXT	24.07.81	\$229.5	0.500	8	n.a.	Bank of Tokyo (agent); ABC; Barclays Bank Int.; Chemical Bank; CIBC; Chase Merchant Banking Group; Morgan Guaranty Trust Co.; Nippon Credit Bank; Standard Chartered Bank; Taiyo Kobe Bank; Toronto Dominion Int. Bank; ADIB; Associated Japanese Bank (Int.); Banco Central; Banco de Vizcaya; Banco Popular Español; Bank of America; Bank of California; Continental Bank of Canada; Crédit Suisse; First Chicago Panama; Girard Bank; Gulf Riyad Bank; Irving Trust Co.; Kyowa Bank Nederland; LTCB; Mitsubishi Trust and Banking Corp.; National City Bank; Republic National Bank of New York; Royal Bank of Scotland; Sumitomo Trust and Banking Co.; Trade Development Bank Overseas; Yasuda Trust & Banking.
BANCOMEXT	24.07.81	\$320.5	0.375 ^f	8	n.a.	Bank of Tokyo (agent); ABC; Barclays Bank Int.; Chemical Bank; CIBC; Chase Merchant Banking Group; Morgan Guaranty Trust Co.; Nippon Credit Bank; Standard Chartered Bank; Taiyo Kobe Bank; Toronto Dominion Int. Bank; ADIB; Associated Japanese Bank (Int.); Banco Central; Banco de Vizcaya; Banco Popular Español; Bank of America; Bank of California; Continental Bank of Canada; Crédit Suisse; First Chicago Panama; Girard Bank; Gulf Riyad Bank; Irving Trust Co.; Kyowa Bank Nederland; LTCB; Mitsubishi Trust and Banking Corp.; National City Bank; Republic National Bank of New York; Royal Bank of Scotland; Sumitomo Trust and Banking Co.; Trade Development Bank Overseas; Yasuda Trust & Banking.
CONASUPO	08.81	\$40.0	0.500	1/4	n.a.	Rosenthal Int.
PEMEX	04.08.81	\$50.0	0.500	1/2	n.a.	Rosenthal Int.
UMS	05.08.81	\$700.0	0.375 or 0.250 ^f 0.500 or 0.375 ^f	4 4=8	n.a.	UBAF (agent); ABC; Al-UBAF Group; Arab Bank Investment Co.; Banco Exterior de España; BANAMEX; Bankers Trust Int.; B.A.I.L.; Fuji Bank; Gulf Int. Bank; IBJ; Mitsui Bank; National Commercial Bank (Saudi Arabia); AMRO; Bank of Nova Scotia Group; CIBC; Chemical Bank Int. Group; Dai-ichi Kangyo Bank; Daiwa Bank; DG Bank; First Chicago Panama; Libyan Arab Foreign Bank; LTCB; Security Pacific Bank; Taiyo Kobe Bank; Texas Commerce Bank National Association; Trade Development Bank Overseas; Banca Commerciale Italiana; First Interstate Bank of California.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
BANOBRAS	11.08.81	\$1000.0	0.500 or 0.375 ^f	6	n.a.	BankAmerica Int. Group; Bankers Trust Int.; BNP; Société Générale; Sumitomo Bank; Toronto Dominion Int. Bank; Crédit Lyonnais; Dai-Ichi Kangyo Bank; Morgan Guaranty Trust Co.; INTERMEX; Trade Development Bank Overseas; Republic National Bank of New York; Bank of Nova Scotia Group; Crédit Suisse; Dresdner Bank (New York); European American Bank; Libra Bank; NMB; National Bank of Canada; Hokkaido Takushoku Bank; Kyowa Bank; Mitsubishi Trust and Banking; Taiyo Kobe Bank; Tokai Bank; BNL; Arab Bank; Banco de Bilbao; Banco de Vizcaya; Bank of Virginia; Commerzbank; Irving Trust Co.; INDOSUEZ; North Carolina National Bank; Sumitomo Trust & Banking; Security Pacific Bank.
SOMEX	14.08.81	\$400.0	0.500	8	n.a.	Morgan Guaranty Trust Co. (agent); BankAmerica Int. Group; Citicorp Int. Group; Lloyds Bank Int.; Toronto Dominion Int. Bank; Tokai Bank; Republic National Bank of New York; Trade Development Bank Overseas; Gulf Int. Bank; Banco de Bilbao; Bankers Trust; Chase Merchant Banking Group; Marine Midland Bank; NatWest; Nippon Credit Bank; Orion Royal Bank; WestLB; Yasuda Trust and Banking Co.
BANOBRAS	09.81 ^s	FFr1120.0 (\$203.06)	7.750 ^m	10	n.a.	BNP.
CFE	14.09.81	\$425.0	0.500 or 0.375 ^f	8	n.a.	Chase Manhattan Bank (agent); Chase Merchant Banking Group; CCF; CIBC; European American Bank; First Chicago Panama; IBJ; INTERMEX; LTCB; BNL; Barclays Bank Group; Republic National Bank of New York; Trade Development Bank Overseas; Australia and New Zealand Banking Group; Banco de Vizcaya; Banco Internacional; Bank of California; Crocker National Bank; Dai-Ichi Kangyo Bank; Mitsubishi Bank; Rabobank Nederland; Saitama Bank.
PEMEX	18.09.81	£365.0 (\$658.90)	0.500 ^t	2	n.a.	Baring Brothers & Co.; N. M. Rothschild & Sons (agents); Samuel Montagu.& Co.
PEMEX	16.10.81	\$200.0	0.125	6	n.a.	European Banking Co. (agent); Banco Exterior de España; County Bank (NatWest); Midland Bank; Tokyo Finance (Asia); European American Bank & Trust Co.; Creditanstalt Bankverein.
UMS	11.81	\$250.0	0.250 or 0.125 ^f	2	n.a.	Société Généralé.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
NAFINSA	13.11.81	£50.0 (\$93.8)	n.a.	1.5	n.a.	S G Warburg (agent); Baring Brothers; Samuel Montagu.
PEMEX	12.81	C\$100.0 (\$83.89)	0.500 ^u	7	n.a.	Mercantile Bank of Canada (agent); Wood Gundy; Continental Bank of Canada; Grindlays Bank of Canada; National Westminster Bank of Canada. ¹
CONASUPO	09.12.81	\$40.0	n.a.	1	n.a.	n.a.
NAFINSA	17.12.81	SDR200.0 (\$250.0)	0.625	8	n.a.	ABC; Bank of Tokyo, BNP; INDOSUEZ; Barclays Bank Group; Chemical Bank Int.; Citicorp Int. Group; Daiwa Bank; IBJ; INTERMEX; LTCB; Mitsubishi Bank; Société Générale de Banque/Banque Belge; Standard Chartered Bank; Sumitomo Bank; First Chicago Panama; AMRO; Bank of New York.
NAFINSA	17.12.81	\$250.0	0.625	8	n.a.	ABC; Bank of Tokyo, BNP; INDOSUEZ; Barclays Bank Group; Chemical Bank Int.; Citicorp Int. Group; Daiwa Bank; IBJ; INTERMEX; LTCB; Mitsubishi Bank; Société Générale de Banque/Banque Belge; Standard Chartered Bank; Sumitomo Bank; First Chicago Panama; AMRO; Bank of New York.
NAFINSA	22.12.81	\$39.3	0.625 0.875	5 5=10	n.a.	Siditic Int.; Banco Totta & Açores; Kredietbank Luxembourgeoise; Nippon European Bank; Trade Development Bank Overseas; Standard Chartered Bank.
AHMSA	n.a/81	\$55.0	n.a.	n.a.	n.a.	Bank of America (agent).
CONASUPO	01.82	£52.0 (\$97.28)	n.a.	n.a.	n.a.	N. M. Rothschild & Sons (agent)
CFE	11.02.82	\$35.0	n.a.	½	n.a.	Rosenthal Int.
FISOMEX	19.02.82	\$34.85	0.625 0.750	5 5=10	n.a.	Wells Fargo; Euromobiliare; Orion Royal Bank; Credit and Finance Corp.; Kleinwort, Benson; Nippon European Bank.
BANCOMEXT	24.02.82	£31.28 (\$56.3)	n.a. ^t	7	n.a.	N. M. Rothschild & Sons

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
BANCOMEXT	24.02.82	£5.5 (\$9.9)	n.a.	7	n.a.	N. M. Rothschild & Sons
UMS	24.02.82	DM400.0 (\$168.9)	0.500	4	n.a.	BEC/ BEAL; Dai-Ichi Kangyo Bank; Deutsche Bank Compagnie Financière Luxembourg; Gulf Int. Bank; LTCB; National Bank of Abu Dhabi; Associated Japanese Bank (Int.); Banco Central; Banco Hispano Americano.
PEMEX	01.03.82	\$57.0	n.a.	1/4	n.a.	n.a.
BANRURAL	24.03.82	\$230.0	0.875 or 0.625 ^f	8	n.a.	ABC; ARLABANK; Banco Exterior de España; BankAmerica Int. Group; KFTCIC; Lloyds Bank Int.; Dai-Ichi Kangyo Bank; Yasuda Trust & Banking Co.; ARBIFT; Banco Hispano Americano; Industrial Bank of Kuwait; Pittsburgh National Bank; Toronto Dominion Int. Bank; Banco Central; Banco Internacional; National Bank of Kuwait; Standard Chartered Bank.
BANRURAL	24.03.82	\$170.0	0.750 or 0.500 ^f	7	n.a.	ABC; ARLABANK; Banco Exterior de España; BankAmerica Int. Group; KFTCIC; Lloyds Bank Int.; Dai-Ichi Kangyo Bank; Yasuda Trust & Banking Co. ARBIFT; Banco Hispano Americano; Industrial Bank of Kuwait; Pittsburgh National Bank; Toronto Dominion Int. Bank; Banco Central; Banco Internacional; National Bank of Kuwait; Standard Chartered Bank.
PEMEX	02.04.82	\$2000.0	0.875 or 0.750 ^f	4	n.a.	Citibank (agent); Banco Exterior de España; BANAMEX; Banco di Roma (New York Branch); Banco de Vizcaya; Bank of America; Bank of Nova Scotia Group; Bank of Tokyo; BNP; PARIBAS; Barclays Bank Group; Chase Merchant Banking Group; Chemical Bank Int.; Citicorp Int. Group; Commerzbank; Crédit Lyonnais; Crédit Suisse; Creditanstalt Bankverein; Dai-Ichi Kangyo Bank; First Interstate Bank of California; IBJ; Manufacturers Hanover; Mellon Bank; Midland Bank Int.; National Bank of Canada; NatWest; Orion Royal Bank; Société Générale; Sumitomo Trust & Banking; SBC Int.; Banca Commerciale Italiana; European American Bank; Libra Bank; Mitsubishi Trust and Banking Corp.; Mitsui Trust and Banking Co.; Republic National Bank of New York / Trade Development Bank Overseas.
DINA	14.04.82	\$85.0	n.a.	n.a.	n.a.	Midland Bank.
SICARTSA	15.04.82	£198.0 (\$356.4)	n.a.	n.a.	n.a.	Lloyds Bank Int.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
SICARTSA	15.04.82	DM151.0 (\$62.92)	n.a.	n.a.	n.a.	Lloyds Bank. ^h
SICARTSA	19.04.82	\$130.0	0.750	10	n.a.	Fuji Bank (agent); Dai-Ichi Kangyo Bank; IBJ. ^j
SICARTSA	19.04.82	\$100.0	0.750	10	n.a.	Bank of Tokyo (agent); Sanwa Bank. ^j
CONASUPO	29.04.82	\$103.0	0.375 ^f	1/2(?)	n.a.	INTERMEX.
SOMEX	05.82	\$29.0	n.a.	n.a.	n.a.	n.a.
TELMEX	05.82	\$75.0	n.a.	7	n.a.	Samuel Montagu & Co. (agent); INTERMEX.
PEMEX	04.05.82	\$57.0	n.a.	1/2(?)	n.a.	Rosenthal Int.
NAFINSA	07.05.82	\$400.0	0.500 or 0.250 ^f	1	n.a.	Manufacturers Hanover (agent); ABC; ARLABANK; BANCOMER; Banco Hispano Americano; Bank of Yokohama; Compagnie Luxembourgeoise de la Dresdner Bank; First Chicago Panama; Gulf Int. Bank; Libra Bank; Manufacturers Hanover Merchant Banking Group; Midland Bank Int.; Sanwa Bank; Société Générale; Sumitomo Bank; BNL; Banco Internacional; Banco Popular Español; Commercial Credit International Banking Corporation; First Interstate Bank of California; Hokkaido Takushoku Bank; Irving Trust Co.; Libyan Arab Foreign Bank; Nippon Credit Bank; Republicbank Dallas; AL-UBAF Group; Arab African Int. Bank; First National Bank of Minneapolis; Saudi National Commercial Bank; Mitsui Trust and Banking Co.; Taiyo Kobe Bank..
NAFINSA	07.05.82	\$400.0	0.625 or 0.500 ^f	2	n.a.	Manufacturers Hanover (agent); ABC; ARLABANK; BANCOMER; Banco Hispano Americano; Bank of Yokohama; Compagnie Luxembourgeoise de la Dresdner Bank; First Chicago Panama; Gulf Int. Bank; Libra Bank; Manufacturers Hanover Merchant Banking Group; Midland Bank Int.; Sanwa Bank; Société Générale; Sumitomo Bank; BNL; Banco Internacional; Banco Popular Español; Commercial Credit International Banking Corporation; First Interstate Bank of California; Hokkaido Takushoku Bank; Irving Trust Co.; Libyan Arab Foreign Bank; Nippon Credit Bank; Republicbank Dallas; AL-UBAF Group; Arab African Int. Bank; First National Bank of Minneapolis; Saudi National Commercial Bank; Mitsui Trust and Banking Co.; Taiyo Kobe Bank.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
NAFINSA	07.05.82	\$400.0	0.750 or 0.625 ^f	3	n.a.	Manufacturers Hanover (agent); ABC; ARLABANK; BANCOMER; Banco Hispano Americano; Bank of Yokohama; Compagnie Luxembourgeoise de la Dresdner Bank; First Chicago Panama; Gulf Int. Bank; Libra Bank; Manufacturers Hanover Merchant Banking Group; Midland Bank Int.; Sanwa Bank; Société Générale; Sumitomo Bank; BNL; Banco Internacional; Banco Popular Español; Commercial Credit International Banking Corporation; First Interstate Bank of California; Hokkaido Takushoku Bank; Irving Trust Co.; Libyan Arab Foreign Bank; Nippon Credit Bank; Republicbank Dallas; AL-UBAF Group; Arab African Int. Bank; First National Bank of Minneapolis; Saudi National Commercial Bank; Mitsui Trust and Banking Co.; Taiyo Kobe Bank.
BANRURAL	07.05.82	\$70.0	0.375 or 0.125 ^f	1/2	n.a.	INTERMEX.
PEMEX	28.05.82	\$400.0	0.250 ^f	3/4	n.a.	ABC; Banco Latinamericano de Exportaciones; Bank of Montreal; Bank of Tokyo.
PEMEX	04.06.82	\$23.0	n.a.	n.a.	n.a.	n.a.
PEMEX	29.06.82	\$60.0	n.a.	4	n.a.	SFE.
UMS	30.06.82	\$1133.7	1.000 or 0.750 ^f	3	n.a.	ABC; Banca Serfín; BANAMEX; BANCOMER; BankAmerica Int. Group; Bank of Montreal; BNS; Bank of Tokyo; BNP; BBI; Chase Manhattan Capital Market Group; Chemical Bank; Continental Illinois; Dai-Ichi Kangyo Bank; Dresdner Bank; First Interstate Banking Group; GIB; IBJ; INTERMEX; LBI; LTCB; Manufacturers Hanover; Midland Bank; Morgan Guaranty Trust Co.; Multibanco Comermex; NatWest; Wells Fargo Latin American Bank.
UMS	30.06.82	\$1367.3	1.500 or 1.375 ^f	6	n.a.	ABC; Banca Serfín; BANAMEX; BANCOMER; BankAmerica Int. Group; Bank of Montreal; BNS; Bank of Tokyo; BNP; BBI; Chase Manhattan Capital Market Group; Chemical Bank; Continental Illinois; Dai-Ichi Kangyo Bank; Dresdner Bank; First Interstate Banking Group; GIB; IBJ; INTERMEX; LBI; LTCB; Manufacturers Hanover; Midland Bank; Morgan Guaranty Trust Co.; Multibanco Comermex; NatWest; Wells Fargo Latin American Bank.
CONASUPO	08.07.82	\$27.0	n.a.	n.a.	n.a.	n.a.
CONASUPO	08.07.82	\$27.0	n.a.	3	n.a.	n.a.
PEMEX	15.07.82	\$260.0	0.500 or 0.375 ^u	3/4	n.a.	Royal Bank of Canada; Taiyo Kobe Bank.

Table continues...

Table B14. Eurocurrency Credits to the Mexican Public Sector, 1971-82

Borrower ^a	Date ^b	Amount ^c	Spread ^d	Term ^e	Fees ^f	Lead Management Group ^g
CFE	29.07.82	\$60.0	n.a.	10	n.a.	Morgan Grenfell & Co.
PEMEX	12.08.82	\$300.0	0.500 or 0.375 ^f	3/4	n.a.	Manufacturers Hanover; KFTCIC; ABC; Daiwa Bank; First National Bank of Boston; Manufacturers and Traders Bank; Mitsui Trust & Banking; Northern Trust Co.; Rainier National Bank; Saudi Int. Bank; Republic Bank Dallas; Southeast Bank; European American & Trust Co. (IBF); Manufacturers National Bank of Detroit; Toyo Trust & Banking.

Note: The Table was constructed from several sources. This was necessary because most loans were included in all of them, but some were mentioned only by one or two of the sources, and also because they were needed to supplement the information: the comprehensive World Bank publication on the matter ceased to be published in 1980, while precisely in that year starts the Euromoney database, while the Euromoney magazine publishes the data on syndicated loans with great detail since the late 1970s. On the other hand, the quarterly reports sent by the SHCP to Congress just mentioned the most outstanding loans contracted during the period. The most peculiar way of aggregating certain loans to the Table were those that were not mentioned in any official source, but where a Tombstone existed. That is, a loan that was unearthed *only* because the Tombstone existed, and unfortunately that source never specified the spread or the commissions paid. The only-Tombstone cases would be understandable in the case of private placements, but several open syndicated loans were also detected through them. Tombstones were very useful in other matter: to find the banks that integrated the lead management group of the syndicate, information only partially provided by the World Bank when the lead management group had more than ten banks, usually the case for the big syndicates. The information provided by the Euromoney magazine was also very useful in that respect, as it included all the banks that integrated the management group. In the loans where two or more sources coincided, a high proportion of the total, the basic data, such as amount, spread or interest rate, participating banks, coincided. The only minor difference sometimes observed was on the date of the loan, possibly some including when the syndication was concluded, others when the loan was signed. Even if some loans have escaped undetected, putting together all the different sources has undoubtedly helped to build a comprehensive data compendium -along with the following Table, that deals with bond emissions- of the incursions of the government of Mexico (its central government, public agencies, and enterprises) in the international capital markets.

- a. Official name of the borrower at the time the loan was signed. In some cases the public enterprise changed its denomination, for example BANAGRO (a development bank for agriculture) later became BANRURAL. For the official names of public borrowers, meanings, and any changes suffered through the 1973-82 period see the section on abbreviations of Mexican public borrowers.
- b. When the precise date is offered before 1980, it was specified in the respective Tombstone (see Appendix E for several examples) or, exceptionally, was mentioned in the respective Quarterly Report from the SHCP to Congress or the Memorial from the SHCP (in the case of precise dates during 1979). All the precise dates data since 1980 comes from the Euromoney Database. When a precise date is not included after 1980, that credit was not included in that database, and is reported in another source. When only the year's date is available (as several 1975 credits), the information is from the World Bank.
- c. Million dollars unless otherwise stated (in those cases the amount in dollars will appear in brackets below).
- d. Above LIBOR unless otherwise stated (the spread was usually topped to the three-month or six-month LIBOR).
- e. The term was many times split because of different spreads (for example a 10-year loan with a spread of 0.750% for the first five years and 0.875% for the last five). When the precise data on how the loan was split is not available, it just appears without the specific tranches (for example, =10 means that the total duration of the loan was 10 years, but there was no data on how the spreads were segmented).
- f. Virtually all the data on fees, when available, comes from the World Bank; that explains the scarcity of such data after 1980. (m) stands for management fee, (c) commitment fee, (p) participation fee, with a number indicating level of participation, and (o) stands for other fee.
- g. World Bank data only included data on the *first ten* banks mentioned in the lead management group. Therefore, the respective data was completed from data published in the *Euromoney* magazine and/or the respective Tombstone.
- h. Syndicate of banks headed and managed by a single bank. In some cases that bank was the sole provider of the credit.
- i. Credit guaranteed by NAFINSA, that for several years operated as the government's financial agent
- j. Syndicate of banks from the same country.
- k. Minimum interest rate to pay if LIBOR fell below that level.
- l. Spread over the Japanese Prime rate.
- m. Fixed rate loan.
- n. Only detected borrowing in the eurosyndicate market made directly by the central bank - Banco de México (Banxico), as trustee for one of its development funds. Resources to be used in the Fondo Especial para Financiamientos Agropecuarios (Special Fund for Agricultural Financing).
- o. Credit guaranteed by the ECGD.
- p. Loan organised by a club or closed syndicate of banks (when available, information comes from the SHCP).

- q. Spread over U.S. Bankers' Acceptances rate.
- r. Spread over the U.S. Prime rate.
- s. Approximate date (loan signed during the third quarter of 1981).
- t. Spread over British Bankers' Acceptances rate.
- u. Spread over the Canadian Prime rate.

Sources: Constructed with data from Euromoney, several issues, and Sánchez Aguilar (1973) for the period 1971-72; Borrowing in International Capital Markets, all the issues from 1973 to 1980, and Euromoney, several issues, for 1973-80; Eurmoney Data Base, 1980-82, and Euromoney, several issues, for the period 1980-82; SHCP(a) and SHCP(b), several issues, and Tombstones.

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
NAFINSA ^d	\$100.0	15	6.875	n.a.	n.a.	03.60	The Prudential Insurance Company of America
UMS	\$25.0	15	6.750	97.70	6.90	15.07.63	Kuhn Loeb and Co., Bank of America, Chase Manhattan Bank.
UMS	\$5.0	3	6.000	n.a.	n.a.	15.07.63	Kuhn Loeb and Co., Bank of America, Chase Manhattan Bank.
UMS	\$5.0	4	6.000	n.a.	n.a.	15.07.63	Kuhn Loeb and Co., Bank of America, Chase Manhattan Bank.
UMS	\$5.0	5	6.000	n.a.	n.a.	15.07.63	Kuhn Loeb and Co., Bank of America, Chase Manhattan Bank.
UMS	\$25.0	15	6.500	n.a.	n.a.	01.04.64	First Boston Corp.
UMS	\$35.0	15	6.250	n.a.	n.a.	24.10.64	Kuhn Loeb and Co.
UMS	\$27.5	15	6.500	n.a.	n.a.	25.10.65	Frist Boston Corp.
CFE	EUA20.0 (\$20.0)	20	6.500	n.a.	n.a.	01.04.66	Crédit Commercial de France
UMS	\$15.0	15	6.875	n.a.	n.a.	01.07.66	Kuhn Loeb and Co.
UMS	\$10.0	15	7.250	n.a.	n.a.	15.11.66	First Boston Corp.
NAFINSA	\$20.0	5	7.500	n.a.	n.a.	15.02.67	Singer & Friedlander
UMS	\$25.0	15	7.000	n.a.	n.a.	15.04.67	Kuhn Loeb and Co.
CFE	\$20.0	5	7.000	n.a.	n.a.	30.05.67	Kredietbank Luxembourgeoise
NAFINSA	\$20.0	15	7.250	n.a.	n.a.	01.09.67	Singer & Friedlander
TELMEX	\$12.0	10	7.750	n.a.	n.a.	01.04.68	Kuhn Loeb and Co.
UMS	DM100.0	12	7.000	n.a.	n.a.	01.06.68	Deutsche Bank
NAFINSA	DM60.0	5	7.000	n.a.	n.a.	01.08.68	Dresdner Bank
CFE	EUA15.0 (\$15.0)	10	7.250	n.a.	n.a.	31.10.68	Crédit Commercial de France
UMS	SWF50.0	15	6.000	n.a.	n.a.	31.10.68	SBC
UMS	DM100.0	15	7.000	n.a.	n.a.	31.12.68	Deutsche Bank
BANOBRAS	\$15.0	5	7.500	n.a.	n.a.	15.02.69	White Weld and Co.
NAFINSA	DM80.0	10	7.250	n.a.	n.a.	01.06.69	Dresdner Bank
CFE	EUA10.0 (\$10.0)	10	8.500	n.a.	n.a.	30.10.69	Kredietbank Luxembourgeoise
BANOBRAS	DM100.0 (\$33.0)	15	8.000	n.a.	n.a.	01.11.71	Dresdner Bank
BANOBRAS	\$21.5	15	n.a.	n.a.	n.a.	01.02.72	Merrill Lynch Pierce, Fenner & Smith
CFE	\$20.0	15	8.000	97.50	8.13	08.02.72	Crédit Commercial de France

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
UMS	\$40.0	15	8.500	100	n.a.	15.03.72	Kuhn Loeb and Co., First Boston Corp.
PEMEX	\$20.0	15	8.500	100	n.a.	24.08.72	Hambros Bank, Western American Bank (Europe)
UMS	\$35.0	25	8.125	99.00	n.a.	29.11.72	Merrill Lynch Pierce, Fenner & Smith; BANAMEX
UMS	DM100.0 (\$31.25)	15	7.250			15.12.72	Deutsche Bank
UMS	¥10,000 (\$37.72)	n.a.	7.900	n.a.	n.a.	21.08.73	Nomura Securities
UMS	\$30.0	18	8.750	100	n.a.	30.11.73	N.M. Rothschild & Sons
PEMEX ^d	\$50.0	15	9.750	100	n.a.	15.01.75	The Prudential Insurance Company of America
UMS	\$75.0	5	10.000	100	n.a.	20.02.75	Merrill Lynch Pierce, Fenner & Smith
PEMEX	\$20.0	7	10.250	98.00	10.86	17.04.75	Blyth Eastman Dillon and Co. Int.
UMS	DM100.0 (\$42.5)	7	9.000	100	9.00	19.06.75	Deutsche Bank, Dresdner Bank
PEMEX	KD7.0 (\$24.5)	10	8.750	100	8.75	30.06.75	Kuwait Investment Co., B.A.I.I.
NAFINSA ^d	\$21.0	n.a.	n.a.	n.a.	n.a.	17.09.75	Salomon Brothers
BANOBRAS	\$25.0	15	11.500	n.a.	n.a.	22.10.75	n.a.
PEMEX ^d	SWF36.0 (\$13.7)	5	n.a.	n.a.	n.a.	12.75	n.a.
NAFINSA	SWF30.0 (\$11.5)	4	8.500	100	8.50	22.01.76	n.a.
UMS	\$50.0	5	9.500	100	9.50	19.02.76	First Boston Corp., Kuhn Loeb & Co.
NAFINSA	SWF30.0 (\$11.7)	4	8.000	n.a.	n.a.	05.03.76	
BANOBRAS	KD6.0 (\$20.5)	10	8.500	99.75	8.54	07.04.76	Kuwait International Investment Co.
UMS	DM100.0 (\$39.0)	7	8.000	98.00	8.38	28.05.76	Deutsche Bank, Dresdner Bank
UMS	¥10,000 (\$33.40)	10	9.000	n.a.	n.a.	11.06.76	Nomura Securities
BANOBRAS	SWF50.0 (\$20.2)	5	7.500	n.a.	n.a.	14.06.76	n.a.
NAFINSA	\$30.0	5	10.000	100	10.00	16.06.76	Credit Suisse - White Weld

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
BANOBRAS ^e	DM100.0 (\$39.6)	5	9.000	100	8.806	31.08.76	Dresdner Bank, N.M. Rothschild & Sons
NAFinsa ^d	KD3.0 (\$10.3)	6.	n.a.	n.a.	n.a.	09.76	J. Henry Schroder & Co.
NAFinsa ^d	SWF50.0 (\$20.2)	5	7.000	100.50	6.794	10.09.76	Banque LEU
NAFinsa ^e	KD6.0 (\$20.5)	7	8.750	100	8.567	20.09.76	Kuwait Investment Co.; Merrill Lynch Int. Co.
TELMEX ^d	SWF50.0 (\$20.4)	5	7.000	100.50	6.794	08.10.76	Banque LEU
NAFinsa ^d	SWF50.0 (\$20.5)	5	7.000	100.50	6.794	05.11.76	n.a.
PEMEX ^e	DM100.0 (\$41.5)	7	8.750	100	8.567	08.11.76	Commerzbank
NAFinsa ^d	DM60.0 (\$24.9)	7	8.750	99.25	8.709	26.11.76	Bayerische Vereinsbank
NAFinsa ^e	DM100.0 (\$41.8)	7	8.750	100	8.567	10.03.77	Dresdner Bank, Deutsche Bank
NAFinsa ^d	SWF50.0 (\$19.8)	5	6.750	101.25	6.349	05.77	Crédit Suisse
UMS ^e	\$60.0	5	9.000	100	9.000	05.05.77	Merrill Lynch Pierce, Fenner and Smith
NAFinsa ^d	BD6.0 (\$15.2)	5	8.750	100	8.567	11.05.77	Kidder Peabody Int.
CFE ^e	DM100.0 (\$42.5)	7	8.000	100	7.846	02.06.77	WestLB.
UMS ^e	DM100.0 (\$42.5)	7	7.750	99.50	7.697	10.06.77	Deutsche Bank, Dresdner Bank
UMS ^d	NLG75.0 (\$30.3)	5	8.250	99.50	8.208	22.06.77	Algemene Bank Nederland
PEMEX ^e	\$75.0	5	9.000	100	8.806	23.06.77	SBC – Luxembourg
NAFinsa ^d	SWF50.0 (\$20.8)	5	6.375	100	6.277	08.77	n.a.
TELMEX ^e	\$50.0	7	9.250	100	9.045	01.08.77	Kredietbank S.A. Luxembourgeoise, Citicorp Int. Group

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
CFE ^d	DM60.0 (\$25.9)	5	7.000	99.50	7.000	19.08.77	Bayerische Vereinsbank
PEMEX ^e	DM150.0 (\$64.7)	7	7.000	100	6.882	26.08.77	WestLB
CFE ^d	SWF30.0 (12.6)	5	6.500	100	6.398	09.77	SBC
BANOBRAS ^e	DM150.0 (\$64.7)	7	7.000	99.25	7.017	22.09.77	Dresdner Bank
NAFINSA ^d	DM20.0 (\$8.6)	5	7.000	100	6.882	26.09.77	Dresdner Bank
PEMEX ^e	SWF100.0 (\$42.1)	10	5.750	100	5.670	04.10.77	SBC
FINASA ^e	\$25.0	5	9.000	99.50	8.930	12.10.77	National Bank of Kuwait, Kuhn Loeb & Co., National Commercial Bank (Saudi Arabia) / First Boston AG
PEMEX ^d	\$90.0	15	9.875	n.a.	n.a.	20.10.77	Merrill Lynch, Pierce, Fenner & Smith
UMS ^e	¥20000.0 (\$78.4)	10	7.100	99.75	7.135	21.10.77	Daiwa Securities; Nomura Securities.
BANOBRAS ^e	\$50.0	5	9.250	99.75	9.314	27.10.77	Merrill Lynch, Pierce, Fenner & Smith
CFE ^e	DM100.0 (\$43.9)	8	7.250	99.75	7.164	27.10.77	WestLB.
PEMEX ^d	BD15.0 (\$37.9)	10	8.750	100	8.567	30.10.77	B.A.I.I. (Middle East)
NAFINSA ^d	SWF50.0 (\$22.7)	5	5.500	100	5.426	04.11.77	Banca della Svizzera Italiana
CFE ^e	SWF60.0 (\$27.3)	10	5.500	100	5.426	09.11.77	PARIBAS (Suisse)
PEMEX ^e	KD7.0 (\$24.9)	10	8.500	100	8.327	15.12.77	Kuwait Investment Co.
NAFINSA ^e	US\$100.0	15	+1.000 (6.000)	100	n.a.	21.12.77	CCF.
PEMEX ^e	DM100.0 (\$46.5)	8	7.000	100.25	6.841	27.12.77	Deutsche Bank
UMS ^d	SWF300.0 (\$157.5)	5	5.250	100	5.183	02.78	SBC; Crédit Suisse; UBS.

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
CFE ^d	SWF60.0 (\$31.5)	5	5.000	100	4.939	20.02.78	n.a.
CFE ^e	DM150.0 (\$73.7)	10	6.750	100	6.640	10.03.78	WestLB.
BANRURAL ^d	SWF40.0 (\$21.1)	5	5.000	99.75	4.995	31.03.78	Swiss Volksbank; Haldelsbank
BANOBRAS ^e	KD7.0 (\$25.4)	12	8.250	100	8.087	12.04.78	Kuwait International Investment Co.
UMS ^e	DM200.0 (\$98.0)	7	6.000	100	5.913	12.04.78	Deutsche Bank, Dresdner Bank
BANRURAL ^e	KD10.0 (\$36.0)	12	8.250	100	8.087	24.05.78	KFTCIC, Merrill Lynch Int. & Co.
CFE ^d	NLG75.0 (\$33.8)	5	7.750	99.00	7.847	28.07.78	ABN
PEMEX ^d	\$50.0	15	9.875	n.a.	n.a.	01.08.78	Merrill Lynch White Weld Capital Markets Group
BANOBRAS ^d	\$50.0	12	9.625	99.25	9.508	25.08.78	Sanwa Bank; Toyo Trust & Banking Co.
PEMEX ^e	\$100.0	5	+0.250 (7.000)	100	n.a.	12.01.79	Manufacturers Hanover; CCF.
PEMEX ^d	\$73.0	16	10.750	n.a.	n.a.	07.79	Goldman Sachs & Co.
NAFINSA ^e	\$100.0	7	+0.250 (6.250)	100	n.a.	02.07.79	Salomon Brothers Int.; Société Générale; Manufacturers Hanover; WestLB.
PEMEX ^d	\$37.2	10	10.000	n.a.	n.a.	01.80	Citibank.
UMS	FFr150.0	5	14.000	100	n.a.	30.04.80	Société Générale
PEMEX ^e	\$125.0	8	11.500	100	11.187	12.06.80	SBC (Luxembourg); Merrill Lynch Int. & Co.
CFE ^e	\$75.0	7	13.000	98.75	12.871	23.10.80	CS First Boston
NAFINSA	\$125.0	7	+0.250 (5.000)	100	n.a.	02.03.81	SBC, Salomon Brothers Int.
PEMEX	\$125.0	7.5	+0.250 (6.000)	100	n.a.	27.03.81	Manufacturers Hanover, Crédit Commerciale de France
CFE	\$100.0	7	+0.250 (5.750)	100	n.a.	23.04.81	Nomura Securities, CS First Boston (Asia)
PEMEX	£50.0 (\$95.6)	25	14.500	96.750	15.182	06.81	Lloyds Bank

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
NAFINSA	\$100.0	5	+0.250 (5.500)	100	n.a.	11.06.81	CS First Boston, LTCB Int.
UMS	\$100.0	7	15.000	99.125	15.770	11.06.81	Morgan Stanley & Co., First Boston Corp., Merrill Lynch White Weld Capital Markets Group
TELMEX	\$75.0	10	+0.250 (6.000)	100	n.a.	23.06.81	Deutsche Bank
PEMEX	\$100.0	7	+0.250 (5.250)	100	n.a.	06.07.81	Yamaichi Int.
UMS	£50.0 (\$90.3)	27	16.500	97.33	n.a.	18.09.81	County Bank
PEMEX	\$75.0	5	17.500	100	n.a.	16.10.81	SBC
NAFINSA	\$150.0	9	+0.250 (10.000)	100	n.a.	22.10.81	CCF.
NAFINSA ^d	NLG75.0	15	13.125	99.25	n.a.	11.81	N.B. Bank Voor Nederlandsche
BANCOMEXT	\$50.0	7	+0.250 (5.750)	100	n.a.	11.11.81	WestLB, Goldman Sachs Int. Corp.
PEMEX ^d	SWF75.0 (\$41.6)	5	8.250		n.a.	12.81	SBC
UMS	\$100.0	5	15.500	100	n.a.	02.12.81	Morgan Stanley & Co., First Boston Corp., Merrill Lynch White Weld Capital Markets Group
UMS	DM100.0 (\$44.2)	7	11.000	99.00	n.a.	10.12.81	Deutsche Bank
AHMSA	\$100.0	5	0.250	100	n.a.	26.01.82	Lloyds Bank Int.
PEMEX	DM150.0 (\$64.5)	8	11.000	100	n.a.	27.01.82	Commerzbank
UMS ^d	SWF100.0 (\$52.1)	5	8.500	100	n.a.	03.82	UBS
UMS	\$130.0	15	17.500	100	n.a.	05.03.82	CCF
NAFINSA	DM150.0 (\$62.9)	8	11.000	100	n.a.	15.03.82	Dresdner Bank, Deutsche Bank
NAFINSA	C\$50.0 (\$40.9)	5	17.750	100	n.a.	17.03.82	Société Générale
BANOBRAS	\$150.0	10	17.250	100	n.a.	26.03.82	S.G. Warburg & Co.

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
PEMEX	£30.0 (\$53.7)	5	16.500	100	n.a.	02.04.82	Hambros Bank, SBC
SICARTSA.	\$65.0	7	0.250		n.a.	04.82	Lloyds Bank Int.
PEMEX	\$150.0	12	17.75	99.65	n.a.	19.05.82	Citicorp Int. Group
BANRURAL	DM100.0 (\$42.8)	8	10.750	99.50	n.a.	21.05.82	DG Bank
CFE	DM100.0 (\$40.8)	7	11.000	n.a.	n.a.	15.06.82	WestLB
NAFINSA	\$50.0	3	18.375	n.a.	n.a.	07.82	Lloyds Bank Int.
UMS	\$175.0	15	18.500	100	n.a.	16.07.82	Merrill Lynch Int. & Co., ABC, Sumitomo Finance Int.
TELMEX	\$50.0	15	18.250	100	n.a.	04.08.82	CS First Boston, Merrill Lynch Int. & Co.
BANCOMEXT	\$100.0	5	10.250	88.450	n.a.	08.06.89	Merrill Lynch
NAFINSA	\$68.9	2	8.250	n.a.	n.a.	15.10.89	Kredietbank Luxemburgeoise
BANCOMEXT	\$81.0	5	10.250	n.a.	n.a.	15.12.89	
UMS	\$173.8	15	8.100	n.a.	n.a.	28.03.90	Merril Lynch
UMS	\$40.0	12	9.500	n.a.	n.a.	28.03.90	Merril Lynch
PEMEX	DM100.0 (\$59.6)	5	11.250	n.a.	n.a.	24.04.90	WestLB
NAFINSA	DM150.0 (\$90.0)	5	11.000	n.a.	n.a.	21.06.90	Dresdner Bank
TELMEX	\$150.0	3	12.250	n.a.	n.a.	30.06.90	Morgan Guaranty Trust
BANCOMEXT	DM100.0 (\$63.0)	6	11.000	n.a.	n.a.	15.07.90	Schweizerischer Bankverein
PEMEX	SCH500.0 (\$44.4)	6	11.000	n.a.	n.a.	20.07.90	Creditanstalt Bankverein
NAFINSA	\$100.0	5	11.750	n.a.	n.a.	02.08.90	Credit Suisse
PEMEX	\$150.0	3	11.880	n.a.	n.a.	25.10.90	SBC
PEMEX	\$100.0	5	11.750	n.a.	n.a.	25.12.90	New England Mutual Life Insurance Co.
PEMEX	\$125.0	2	10.000	n.a.	n.a.	03.91	SBC
UMS	DM300.0 (\$175.3)	5	10.500	n.a.	n.a.	03.91	Deutsche Bank
BANCOMEXT	\$75.0	1	10.000	n.a.	n.a.	04.91	Bank of New York
NAFINSA	\$125.0	5	10.000	n.a.	n.a.	05.91	Morgan Securities
BANCOMEXT	\$100.0	5	10.000	n.a.	n.a.	06.91	Goldman Sachs

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
UMS	\$150.0	10	9.5000	n.a.	n.a.	07.91	Bank of New York
PEMEX	ECU100.0 (\$117.3)	3	11.500	n.a.	n.a.	08.91	Banque Paribas
UMS	PTA10.0 (\$101.5)	5	14.400	n.a.	n.a.	08.91	Banco Santander
BANOBRAS	\$100.0	5	10.750	n.a.	n.a.	08.91	Credit Suisse First Boston
PEMEX	\$150.0	7	10.250	n.a.	n.a.	10.91	SBC
BANCOMEXT	C\$60.0 (\$52.9)	5	11.000	n.a.	n.a.	11.91	Bankers Trust
NAFINSA	\$150.0	10	10.630	n.a.	n.a.	11.91	Chase Investment Bank
PEMEX	SCH500.0 (\$43.7)	10	10.750	n.a.	n.a.	11.91	Creditanstalt Bankverein
UMS	£100.0 (\$187.0)	7	12.250	n.a.	n.a.	12.91	J.P. Morgan, Samuel Montagu
NAFINSA	\$100.0	5	6.000		n.a.	12.91	Bankers Trust Int.
BANCOMEXT	PTA10.0 (\$99.8)	5	14.000	100.00	n.a.	01.92	Banco Santander
NAFINSA	ECU100.0 (\$126.0)	5	10.250	100.75	n.a.	03.92	SBC
PEMEX	\$150.0	5	8.750	100.58	n.a.	03.92	Credit Suisse First Boston
NAFIN	\$100.0	7	9.380	99.25	n.a.	04.92	Bear Stearns Int.
PEMEX	FFr500.0 (\$91.9)	2	7.028	99.85	n.a.	06.92	Banque Paribas
NAFIN	\$100.0	10	9.375	99.63	n.a.	07.92	J.P. Morgan Securities
NAFIN	\$10.0	1	5.500		n.a.	07.92	Salomon Brothers
CFE	\$100.0	5	8.500	99.88	n.a.	08.92	Citibank
UMS	\$126.8	8	4.810	n.a.	n.a.	08.92	Citibank
NAFIN	\$10.0	1	5.250	n.a.	n.a.	08.92	Salomon Brothers
BANCOMEXT	\$10.2	10	8.250	n.a.	n.a.	08.92	Bank of New York
UMS	\$250.0	10	8.500	99.75	n.a.	09.92	Goldman Sachs
NAFIN	\$200.0	5	variable	99.75	n.a.	12.92	n.a.
PEMEX	\$125.0	5	8.250	100.685	n.a.	02.93	SBC
NAFIN	\$100.0	5	5.875	100.00	n.a.	02.93	Bankers Trust
UMS	\$200.0	5	7.250	99.234	n.a.	03.93	Deutsche Bank

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
PEMEX	SWF150.0 (\$97.4)	5	7.486	101.50	n.a.	03.93	Credit Suisse
NAFIN	PTA10.0 (\$86.1)	5	13.600	101.225	n.a.	04.93	Banco Central Hispanoamericano
BANCOMEXT	\$150.0	7	8.000	100.825	n.a.	04.93	
BANCOMEXT	DM200.0 (\$124.5)	5	8.000	101.85	n.a.	05.93	Bayerische Landesbank Girozentrale
PEMEX	SCH700.0 (\$62.1)	5	8.3750	100.50	n.a.	05.93	Creditanstalt Bankverein
PEMEX	\$366.0	7.5	7.5300	100.00	n.a.	05.93	n.a.
BANCOMEXT	PTA10.0 (\$80.2)	5	12.650	100.625	n.a.	06.93	Banco de Santander
PEMEX	\$150.0	3	6.250	100.24	n.a.	06.93	Deutsche Bank
PEMEX	\$150.0	3	6.125	99.74	n.a.	06.93	n.a.
PEMEX	\$100.0	7	7.600	99.82	n.a.	06.93	n.a.
BANCOMEXT	\$250.0	7	7.500	99.682	n.a.	07.93	n.a.
NAFIN	\$100.0	5	+0.250	100.00	n.a.	07.93	Samuel Montagu
UMS	¥10.0 (\$91.2)	3	4.900	100.50	n.a.	07.93	Fuji Bank
BANCOMEXT	\$200.0	10	8.000	99.80	n.a.	07.93	
PEMEX	SCH400.0 (\$33.3)	5	8.750	102.00	n.a.	07.93	Creditanstalt Bankverein
BANCOMEXT	£75.0 (112.7)	7	8.750	99.25	n.a.	09.93	Samuel Montagu
PEMEX	FFr750.0 (\$133.4)	5	6.873	99.90	n.a.	09.93	Banque Paribas
BANOBRAS	\$100.0	5	6.875	101.095	n.a.	10.93	Credit Suisse First Boston
PEMEX	£75.0 (113.4)	10	7.678	99.712	n.a.	10.93	Barclays de Zoete Wedd
NAFIN	¥10.0 (\$94.5)	3	3.900	99.90	n.a.	10.93	Daiwa Securities
PEMEX	C\$100.0 (\$77.1)	5.25	7.075	100.825	n.a.	12.93	Citibank

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
NAFIN	\$100.0	5	+0.250	100.00	n.a.	12.93	Kidder, Peabody Int.
PEMEX	\$250.0	30	8.625	99.872	n.a.	12.93	n.a.
Fideicomiso Petacalco Topolobampo	\$250.0	10	8.125	99.569	n.a.	12.93	n.a.
BANCOMEXT	¥15.0 (\$138.4)	5	4.000	100.00	n.a.	12.93	The Nikko Securities Co.
BANCOMEXT	\$1,000.0	10	7.250	99.516	n.a.	01.94	Citibank
NAFIN	\$150.0	2	+0.875	99.825	n.a.	02.94	Kidder, Peabody Int.
PEMEX	\$300.0	5	+1.000	99.340	n.a.	03.94	J.P. Morgan Securities
NAFIN	\$250.0	5	+1.000	99.875	n.a.	03.94	Leahman Brothers Securities Asia
PEMEX	\$200.0	3	+0.770	100.00	n.a.	04.94	Chase Investment Bank (London)
PEMEX	\$200.0	3	+0.850	100.00	n.a.	04.94	SBC London
BANCOMEXT	\$250.0	3	+0.124	99.722	n.a.	04.94	Bank of New York
NAFIN	\$545.86	4	11.250	110.00	n.a.	05.94	n.a.
PEMEX	¥20.0 (\$204.3)	4	+1.050	n.a.	n.a.	11.94	n.a.
NAFIN	\$110.3	1	+3.500	n.a.	n.a.	04.05.95	n.a.
NAFIN	\$73.7	0.583	+2.250	n.a.	n.a.	04.05.95	n.a.
NAFIN	\$50.0	1	+6.000	n.a.	n.a.	09.05.95	n.a.
NAFIN	\$28.0	1	+8.000	n.a.	n.a.	15.05.95	n.a.
BANCOMEXT	\$30.0	1	+5.800	n.a.	n.a.	23.05.95	n.a.
NAFIN	\$10.0	1	+5.600	n.a.	n.a.	24.05.95	n.a.
BANCOMEXT	\$75.0	1	+5.440	n.a.	n.a.	31.05.95	n.a.
BANCOMEXT	\$300.0	2	+5.510	n.a.	n.a.	23.06.95	Banco Santander.
UMS	\$1,000.0	2	+5.570	n.a.	n.a.	20.07.95	Citibank
UMS	¥100.0 (\$1,100.0)	3	5.000			17.08.95	Daiwa Securities.
NAFIN	DM250.0 (\$170.5)	3	10.000	100.92	n.a.	17.08.95	Deutsche Bank
NAFIN	SWF150.0 (\$129.9)	3	7.500	102.30	n.a.	29.09.95	SBC
BANCOMEXT	¥20.0 (\$192.9)	2	3.000	100.00	n.a.	02.10.95	n.a.

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
UMS	DM1000.0 (\$702.7)	5	9.375	101.15	TB+4.07	02.11.95	Dresdner Bank, CS First Boston.
PEMEX	SWF150.0 (\$131.4)	2	6.000	102.25	n.a.	11.95	n.a.
UMS	\$1,500.0	1	Cete - 6% or LIBOR	100.00	n.a.	05.12.95	n.a.
UMS	¥30.0 (\$296.0)	1.33	2.850	99.90	n.a.	12.12.95	n.a.
UMS	¥13.0 (\$128.3)	2	3.000	100.00	n.a.	12.12.95	n.a.
UMS	DM1500.0	7	10.375	n.a.	TB+4.91	01.96	n.a.
UMS	\$1000.0	5	9.750	n.a.	TB+4.45	02.96	Merrill Lynch, JP Morgan.
UMS	¥40.0	6	6.000	n.a.	TB+3.90	03.96	Daiwa Secutities.
PEMEX	LIT300.0	2	n.a.	n.a.	TB+3.00	04.96	
UMS	\$1750.0	30	11.500	n.a.	TB+5.52	05.96	n.a.
UMS	¥100.0	10	6.750	n.a.	TB+4.10	06.96	n.a.
UMS	\$6000.0	5	+2.000	n.a.	n.a.	05.08.96	n.a.
UMS	DM1500.0 (\$994.7)	8	9.156	n.a.	TB+3.04	09.96	Dresdner Bank.
UMS	¥70.0 (\$640.0)	6	5.000	n.a.	TB+3.26	04.09.96	Daiwa Securities.
UMS	\$1000.0	20	n.a.	n.a.	TB+4.45	17.09.96	Goldman Sachs, Merrill Lynch
UMS	LIT500.0 (\$325.0)	5	+2.000	n.a.	TB+2.49	07.11.96	Deutsche Morgan Grenfell, J.P Morgan Securities
UMS	\$1500.0	10	9.875	n.a.	TB+3.35	09.01.97	Merrill Lynch, Salomon Brothers (Global Bond)
UMS	LIT500.0 (\$310.0)	10	9.220	n.a.	TB+2.32	29.01.97	Chase Securities, Deutsche Morgan Grenfell.
UMS	DM1500.0 (\$915.0)	12	8.290	n.a.	TB+2.64	04.02.97	Deutsche Morgan Grenfell, Dresdner Bank.
UMS	¥50.0 (\$406.6)	7	4.000	n.a.	TB+2.19	20.02.97	Daiwa Securities.
PEMEX	LIT350.0 (\$207.0)	7	n.a.	n.a.	TB+2.20	03.97	n.a.

Table continues...

Table B15. Issues by the Mexican Public Sector in the International Bond Market, 1963-97

Borrower	Amount	Term ^a	Coupon or Spread ^b	Issue Price (%)	Offering Yield (%) ^c	Date	Lead Manager(s)
UMS	¥100.0 (\$795.9)	5	3.100	n.a.	TB+1.87	08.04.97	Nikko Securities.
UMS	LIT500.0 (\$290.0)	20	n.a.	n.a.	TB+3.00	17.04.97	Deutsche Morgan Grenfell, Chase Securities.
UMS	£300.0 (\$490.0)	5	8.750	n.a.	TB+1.73	14.05.97	Barclays Bank, SBC.
UMS	LIT500.0 (\$300.0)	7	8.375	n.a.	TB+1.97	25.06.97	Chase Securities, Deutsche Morgan Grenfell.
UMS	DM750.0 (\$430.0)	11	8.000	n.a.	TB+2.52	02.07.97	Deutsche Morgan Grenfell.
UMS	E400.0 (\$440.0)	7	7.625	n.a.	n.a.	10.09.97	PARIBAS, Swiss Bank
UMS	C\$500.0 (\$360.0)	6	7.000	n.a.	n.a.	22.10.97	Merrill Lynch, Scotia Capital Markets

a. Years.

b. Percentage points if coupon. A (+) sign precedes a spread above LIBOR. A spread may be accompanied by a minimum rate (between brackets), to be paid if LIBOR fell below that level.

c. Percentage points. TB is the U.S. Treasury bill of equivalent maturity.

d. Private placement

e. Public offering.

Source: World Bank(a) for information from 1976 to 1980 (and if the bond was a private or public placement); Euromoney Database; *Euromoney* (1982e), Tombstones; SHCP Database after 1989 and press bulletins available at <http://www.shcp.gob.mx>.

Table B16. Issuing of Bonds by the Mexican public sector, 1988-97
(million dollars)

Borrower/Year	1988	1989	1990	1991	1992
UMS	2 556.1 ^a	-	213.8	601.5	376.8
PEMEX	-	-	354.3	436.0	241.9
CFE	-	-	-	-	100.0
NAFIN	-	68.9	190.0	375.0	400.1
BANCOMEXT	-	81.0	63.0	227.9	108.2
BANOBRAS	-	-	-	100.0	-
Others	-	-	150.0	-	-
Total	2 556.1	149.9	971.1	1 740.4	1 227.0
	1993	1994	1995	1996	1997
UMS	295.8	100.0	4 723.5	15 001.8	7 170.7
PEMEX	1 291.3	1 054.3	133.0	792.6	1 183.3
CFE	-	-	-	-	-
NAFIN	488.2	1 373.8	895.9	359.1	250.0
BANCOMEXT	1 577.3	1 860.0	769.5	203.8	300.0
BANOBRAS	100.0	-	-	200.0	-
Others	-	-	-	-	-
Total	3 752.6	4 388.1	6 521.9	16 557.3	8 904.0

a. Aztec Bonds for the debt/debt swap organised by the Mexican government and JP Morgan.
Source: Zedillo (1998), at Presidencia de la República Internet archive.

Table B17. Leaders in Bank Syndicated Loans to Mexico, 1973-82

Bank	73	74	75	76	77	78	79	80	81	82	Total
Bank of America ^a	0	3	4	2	2	3	3	2	6	3	28
Bank of Tokyo	1	0	0	0	3	5	9	2	4	4	28
Bank of Montreal	1	2	1	4	4	3	7	2	1	2	27
Citicorp / Citibank	0	0	2	4	2	4	4	4	5	2	27
INTERMEX	0	0	6	2	2	1	2	3	4	4	24
Chemical Bank	1	1	2	1	2	2	5	1	6	2	23
Chase Manhattan ^b	0	1	2	3	3	3	2	1	4	2	21
Lloyds Bank ^c	0	2	1	1	4	5	4	0	1	3	21
WestLB	0	2	2	0	4	2	5	3	3	0	21
Morgan Guaranty Trust Co. ^d	0	1	2	3	2	1	4	2	4	1	20
Royal Bank of Canada	0	3	3	2	2	4	3	2	0	1	20
Dai-Ichi Kangyo	1	1	0	0	0	2	2	2	6	5	19
IBJ	4	0	0	0	1	3	2	0	5	3	18
NatWest ^e	0	0	0	0	2	5	2	4	3	2	18
CIBC	0	0	3	2	3	1	4	0	4	0	17
Crédit Lyonnais	1	0	1	0	0	1	3	5	5	1	17
Libra Bank	0	3	2	2	3	2	1	1	1	2	17
Mitsubishi Bank ^f	0	0	0	0	1	4	4	1	6	1	17
Bankers Trust	0	1	2	2	2	2	3	1	3	0	16
Manufacturers Hanover ^g	1	0	1	1	1	4	2	1	1	4	16
Toronto Dominion Bank	1	0	1	1	2	4	3	0	3	1	16
Bank of Nova Scotia	0	0	1	2	2	2	0	2	5	1	15
BNP	0	0	0	0	3	1	2	3	4	2	15
Sumitomo Bank ^h	1	0	0	0	0	1	5	1	5	2	15
BANAMEX	0	0	1	1	2	1	2	2	3	2	14
Barclays Bank	0	0	2	1	2	1	2	1	4	1	14
LTCB	1	0	0	0	1	2	3	0	5	2	14
Société Générale	1	0	1	0	2	0	2	2	4	2	14
CSFB ⁱ	1	2	3	1	0	0	1	1	3	1	13
Midland Bank ^j	0	0	1	0	1	1	2	0	4	4	13
Deutsche Bank ^k	0	0	1	1	1	2	4	1	1	1	12
Dresdner Bank	0	1	1	0	2	1	3	1	1	2	12
First Chicago ^l	0	0	2	3	1	0	1	0	4	1	12
Sanwa Bank ^m	0	1	0	0	0	4	3	0	2	2	12
Commerzbank	0	0	2	1	1	2	1	1	1	1	10
Grindlay Brandts ⁿ	1	2	1	1	1	0	2	1	1	0	10
Mitsui Bank ^o	0	0	0	0	0	3	0	2	2	3	10
Orion Bank ^p	0	3	0	1	1	0	0	0	3	2	10
Taiyo Kobe Bank	1	1	0	0	0	0	1	0	5	2	10
BANCOMER	0	1	1	2	2	0	0	0	1	2	9
BEC	1	0	0	0	1	1	3	0	2	1	9
CCF	0	0	2	0	0	1	1	2	3	0	9
Security Pacific	0	0	1	3	2	0	0	1	2	0	9
Singer & Friedlander	2	0	4	0	3	0	0	0	0	0	9

a. Including loans by the BankAmerica Int. Group.

b. Including loans by the Chase Manhattan Capital Market Group.

c. Including a loan by Lloyds Bank California.

d. Including a loan by Morgan Guaranty Int. Bank of Miami.

e. Including a loan by County Bank and a loan from National Westminster Bank of Canada.

f. Including loans by Mitsubishi Trust and Banking Corp.

g. Including loans by Manufacturers Hanover Merchant Banking Group.

h. Including loans by the Sumitomo Trust and Banking Group and the Sumitomo Bank of California.

i. Including loans by Crédit Suisse and from First Boston when both were separate firms.

j. Including loans by Marine Midland.

k. Includes loans by the Deutsche Bank Financiere Luxembourg and Compagnie Financiere de la Deutsche Bank.

l. Including loans by First Chicago Panama.

m. Including loans by Sanwa Int. Finance.

n. Including loans by Wm. Brandt's Sons & Co., Brandts, Grindlays Bank, and Grindlays Bank of Canada.

o. Including loans from Mitsui Trust & Banking

p. Including loans by the Orion Banking Group and Orion Royal Bank.

Table continues...

Table B17. Leaders in Bank Syndicated Loans to Mexico, 1973-82

Bank	73	74	75	76	77	78	79	80	81	82	Total
ABC	0	0	0	0	0	0	0	0	3	5	8
DG Bank	0	0	2	0	1	2	1	1	1	0	8
European American Bank ^a	0	1	0	0	0	1	0	0	4	2	8
Fuji Bank	0	1	0	0	0	2	1	0	3	1	8
Nippon Credit Bank	0	0	0	0	1	0	3	1	2	1	8
SBC	0	0	0	1	1	2	2	1	0	1	8
Société Générale de Banque ^b	0	0	0	0	2	1	2	1	2	0	8
Tokai Bank	0	0	0	0	0	2	3	0	3	0	8
Trade Development Bank Overseas	0	0	0	0	0	0	0	0	7	1	8
UBS	0	0	0	1	1	1	4	1	0	0	8
Wells Fargo Bank	0	0	2	1	1	0	2	0	0	2	8
Continental Illinois ^c	0	0	1	2	0	0	0	0	3	1	7
Crocker National Bank	0	2	0	1	1	0	0	1	2	0	7
Kuhn, Loeb & Co.	1	2	3	1	0	0	0	0	0	0	7
Kredietbank ^d	1	0	2	0	2	0	1	0	1	0	7
PARIBAS	0	0	0	0	0	1	2	2	1	1	7
Rosenthal Int.	0	0	0	0	0	2	1	0	2	2	7
Standard Chartered Bank ^e	0	0	0	0	0	1	0	1	4	1	7
AMRO	0	0	1	0	1	1	1	0	2	0	6
Banco Exterior de España	0	0	0	0	0	0	1	1	2	2	6
Banco Internacional	0	0	0	1	1	0	0	0	2	2	6
Bayerische Landesbank	0	0	1	0	1	2	0	2	0	0	6
Daiwa Bank	0	0	0	0	0	1	2	0	2	1	6
Republic National Bank of New York	0	0	0	0	0	0	0	0	5	1	6
UBAF	0	0	1	1	0	1	0	0	2	1	6
Banco de Bilbao	0	0	0	0	1	0	1	0	3	0	5
Gulf Int. Bank	0	0	0	0	0	0	0	1	2	2	5
Loeb, Rhoades & Co.	4	1	0	0	0	0	0	0	0	0	5
Kyowa Bank ^f	0	0	0	0	0	1	1	0	3	0	5
Saitama Bank	0	0	0	0	0	1	2	0	2	0	5
Yasuda Trust & Banking ^g	0	0	0	0	0	1	1	0	2	1	5
ARLABANK	0	0	0	0	0	0	0	1	1	2	4
Banco de Vizcaya	0	0	0	0	0	0	0	0	3	1	4
Banco Hispano Americano	0	0	0	0	0	0	1	0	0	3	4
Bank of California	0	0	0	1	1	0	0	0	2	0	4
Baring Brothers & Co.	0	0	1	0	0	0	0	1	2	0	4
Creditanstalt Bankverein	0	0	0	0	0	0	0	0	3	1	4
European Banking Co.	0	1	0	0	1	0	1	0	1	0	4
INDOSUEZ	0	0	0	0	1	0	0	0	3	0	4
Irving Trust Co.	0	0	0	0	0	0	1	0	2	1	4
Kleinwort, Benson	0	0	0	0	1	0	0	1	1	1	4
Merrill Lynch Int. Bank	0	0	0	0	1	1	2	0	0	0	4
National Bank of Canada	0	0	0	0	0	0	0	0	3	1	4
N.M. Rothschild & Sons	0	0	0	0	0	0	0	0	1	3	4
Wobaco Investments	0	1	2	1	0	0	0	0	0	0	4
ABN	0	0	0	2	0	0	1	0	0	0	3
Associated Japanese Bank (Int.)	0	0	0	0	0	0	0	1	1	1	3
Banca Serfín ^h	0	0	1	0	0	0	1	0	0	1	3
Banco do Brasil	0	0	0	0	1	0	1	1	0	0	3
Banco Central	0	0	0	0	0	0	0	0	1	2	3
B.A.I.I.	0	0	0	1	0	1	0	0	1	0	3
Bank of Yokohama	0	0	0	0	0	1	0	0	1	1	3

a. Including loans by the European American Bank and Trust Co.

b. Including loans by Banque Belge and Generale Bankmaatschappij.

c. Including loans by Continental Bank and the Continental Bank of Canada

d. Including loans by Kreditbank Luxembourgise

e. Including loans by Standard Chartered Merchant Bank.

f. Including a loan by Kyowa Bank Nederland.

g. Including a loan by Yasuda Trust and Finance.

h. Including a loan by Banco de Londres y México (that changed its name to Serfín).

Table continues...

Table B17. Leaders in Bank Syndicated Loans to Mexico, 1973-82

Bank	73	74	75	76	77	78	79	80	81	82	Total
Bayerische Vereinsbank	0	0	1	0	1	0	0	0	1	0	3
BBL ^a	1	1	0	0	0	0	0	1	0	0	3
BfG	0	0	0	0	2	0	1	0	0	0	3
BNL	0	0	0	0	0	0	0	0	2	1	3
First Interstate Bank of California	0	0	0	0	0	0	0	0	1	2	3
First National Bank of Boston	0	0	0	0	2	0	0	0	0	1	3
Hokkaido Takushoku Bank	0	0	0	0	0	0	0	0	2	1	3
KFTCIC ^b	0	0	0	1	0	0	0	0	0	2	3
Lazard Brothers & Co.	0	1	2	0	0	0	0	0	0	0	3
London & Continental Bankers	0	0	1	0	1	1	0	0	0	0	3
Mellon Bank	0	0	0	0	0	1	1	0	0	1	3
Republic Bank Dallas	0	0	0	0	0	0	0	0	1	2	3
Samuel Montagu & Co.	0	0	0	0	0	0	0	0	2	1	3
Saudi National Commercial Bank	0	0	0	1	0	0	0	0	1	1	3
United California Bank	0	1	0	1	0	0	0	0	1	0	3
American Express Int.	0	0	0	0	1	0	1	0	0	0	2
Arab Bank ^c	0	0	0	0	0	0	0	0	2	0	2
Banca Commerciale Italiana	0	0	0	0	0	0	0	0	1	1	2
Banco Popular Español	0	0	0	0	0	0	0	0	1	1	2
Banco di Roma	0	0	0	0	0	0	1	0	0	1	2
Banque Française du Commerce Exterieur	0	0	0	0	0	0	0	1	1	0	2
Banque Générale du Luxembourg	0	0	0	0	0	0	2	0	0	0	2
Bank of Virginia	0	0	0	0	0	0	0	0	2	0	2
BEAL	0	0	0	0	0	0	1	0	0	1	2
Crédit Agricole	0	0	0	0	0	0	0	1	1	0	2
Crédit Industriel et Commercial	0	0	0	0	0	0	0	0	2	0	2
European Arab Bank	0	0	0	0	0	0	1	0	1	0	2
French American Banking Corp.	2	0	0	0	0	0	0	0	0	0	2
Iran Overseas Investment Bank	0	0	2	0	0	0	0	0	0	0	2
J. Henry Schroeder & Co. ^d	0	0	1	1	0	0	0	0	0	0	2
London Multinational Bank	0	1	1	0	0	0	0	0	0	0	2
Multibanco Comermex	0	0	0	0	0	1	0	0	0	1	2
Nippon European Bank	0	0	0	0	0	0	0	0	1	1	2
NMB ^e	0	0	0	0	0	0	0	0	2	0	2
Northern Trust Co.	0	0	0	0	0	0	0	1	0	1	2
Rabobank	0	0	1	0	0	0	0	0	1	0	2
Société Financière Européenne	0	0	0	0	0	0	1	0	0	1	2
Texas Commerce Bank	0	0	0	0	0	0	0	0	2	0	2
Toyo Trust & Banking	0	0	0	0	0	0	0	0	1	1	2
Union Bank	1	0	0	1	0	0	0	0	0	0	2
Western American Bank	0	0	1	1	0	0	0	0	0	0	2
Williams & Glyn's Bank	0	0	0	0	0	0	1	0	1	0	2
Abu Dhabi Investment Co.	0	0	0	0	1	0	0	0	0	0	1
ADIB	0	0	0	0	0	0	0	0	1	0	1
Allied Bank Int.	0	0	1	0	0	0	0	0	0	0	1
Arab African Int. Bank	0	0	0	0	0	0	0	0	0	1	1
Arab Finance Corp.	0	0	0	1	0	0	0	0	0	0	1
ARBIFT	0	0	0	0	0	0	0	0	0	1	1
Atlantic Int. Bank	0	0	1	0	0	0	0	0	0	0	1
Australia and New Zealand Banking Group	0	0	0	0	0	0	0	0	1	0	1
Banco Latinamericano de Exportaciones	0	0	0	0	0	0	0	0	0	1	1
Banco de Santander	0	0	0	0	1	0	0	0	0	0	1

a. Including loans by Banque Bruxelles.

b. Including a loan from the Kuwait Investment Co.

c. Including a loan by Arab Bank Investment Co.

d. Including all the loans granted by the different subsidiaries of J. Henry Schroeder.

e. Including a loan by NMB-Interunion.

Table continues...

Table B17. Leaders in Bank Syndicated Loans to Mexico, 1973-82

Bank	73	74	75	76	77	78	79	80	81	82	Total
Banco Totta & Açores	0	0	0	0	0	0	0	0	1	0	1
Banco Urquijo	0	0	0	0	0	0	1	0	0	0	1
Bank Julius Baer Int.	0	0	0	0	1	0	0	0	0	0	1
Bank of New York	0	0	0	0	0	0	0	0	1	0	1
Banque Belge pour l'Etranger	0	0	0	0	0	0	1	0	0	0	1
Banque Belge France	0	0	0	0	0	0	1	0	0	0	1
Banque Belgo-Zairoise	0	0	0	0	0	0	1	0	0	0	1
Banque Commerciale pour l'Europe du Nord	1	0	0	0	0	0	0	0	0	0	1
Banque Européenne de Tokyo	1	0	0	0	0	0	0	0	0	0	1
Blyth Eastman, Dillon & Co.	0	1	0	0	0	0	0	0	0	0	1
Canadian American Bank	0	0	0	0	0	0	1	0	0	0	1
Commercial Credit International Banking Corporation	0	0	0	0	0	0	0	0	0	1	1
Credit and Finance Corp.	0	0	0	0	0	0	0	0	0	1	1
Development Bank of Singapore	0	0	0	0	0	0	0	1	0	0	1
EIB	0	0	0	0	0	0	1	0	0	0	1
EULABANK	0	1	0	0	0	0	0	0	0	0	1
Euromobiliare	0	0	0	0	0	0	0	0	0	1	1
First Int. Bancshares	0	0	0	0	0	0	1	0	0	0	1
First Interstate Banking	0	0	0	0	0	0	0	0	0	1	1
First National Bank of Atlanta	0	0	0	0	0	0	1	0	0	0	1
First National Bank of Minneapolis	0	0	0	0	0	0	0	0	0	1	1
First Pennsylvania Bank	0	0	0	0	0	0	1	0	0	0	1
Franklin National Bank	1	0	0	0	0	0	0	0	0	0	1
Girard Bank	0	0	0	0	0	0	0	0	1	0	1
Goldman Sachs	0	1	0	0	0	0	0	0	0	0	1
Gulf Riyadh Bank	0	0	0	0	0	0	0	0	1	0	1
Harris Trust and Savings Bank	0	0	0	0	0	0	0	1	0	0	1
Hill Samuel & Co.	1	0	0	0	0	0	0	0	0	0	1
Hypobank Int.	0	0	0	0	0	0	0	1	0	0	1
Industrial Bank of Kuwait	0	0	0	0	0	0	0	0	0	1	1
Industrial National Bank of Rhode Island	0	0	0	0	1	0	0	0	0	0	1
Inter-Alpha Group	0	0	0	0	0	1	0	0	0	0	1
Int. Commercial Bank	0	0	1	0	0	0	0	0	0	0	1
Latin American Bank	0	0	0	0	0	0	0	0	0	1	1
Lincoln First Bank	0	0	0	0	0	0	1	0	0	0	1
Manufacturers National Bank of Detroit	0	0	0	0	0	0	0	0	0	1	1
Manufacturers and Traders Bank	0	0	0	0	0	0	0	0	0	1	1
Mercantile Bank of Canada	0	0	0	0	0	0	0	0	1	0	1
Morgan Grenfell & Co.	0	0	0	0	0	0	0	0	0	1	1
National Bank of Abu Dhabi	0	0	0	0	0	0	0	0	0	1	1
National Bank of Detroit	0	0	1	0	0	0	0	0	0	0	1
National Bank of Kuwait	0	0	0	0	0	0	0	0	0	1	1
National Bank of Memphis	0	0	1	0	0	0	0	0	0	0	1
National Bank of North America	0	0	1	0	0	0	0	0	0	0	1
National City Bank	0	0	0	0	0	0	0	0	1	0	1
New England Merchants National Bank	0	0	0	0	0	0	1	0	0	0	1
North Carolina National Bank	0	0	0	0	0	0	0	0	1	0	1
Overseas Investors Inc.	1	0	0	0	0	0	0	0	0	0	1
Pittsburgh National Bank	0	0	0	0	0	0	0	0	0	1	1
Pkbanken Int.	0	0	0	0	0	0	0	1	0	0	1
Rainier National Bank	0	0	0	0	0	0	0	0	0	1	1
Rhode Island Hospital Trust National Bank	0	0	0	0	0	0	1	0	0	0	1

Table continues...

Table B17. Leaders in Bank Syndicated Loans to Mexico, 1973-82

Bank	73	74	75	76	77	78	79	80	81	82	Total
Riggs National Bank of Washington D.C.	0	0	0	0	0	0	1	0	0	0	1
Royal Bank of Scotland	0	0	0	0	0	0	0	0	1	0	1
S G Warburg	0	0	0	0	0	0	0	0	1	0	1
Saudi Int. Bank	0	0	0	0	0	0	0	0	0	1	1
Seattle First National Bank	0	0	0	0	0	0	0	0	1	0	1
Shawmut Bank of Boston	0	0	0	0	0	0	1	0	0	0	1
Siditic Int.	0	0	0	0	0	0	0	0	1	0	1
Skandinaviska Enskilda Banken	0	0	1	0	0	0	0	0	0	0	1
Southeast Bank	0	0	0	0	0	0	0	0	0	1	1
State Street Bank & Co.	0	0	0	0	0	0	1	0	0	0	1
Tokyo Finance	0	0	0	0	0	0	0	0	1	0	1
Tokyo Trust and Banking Co.	0	0	0	0	0	1	0	0	0	0	1
Wood Gundy	0	0	0	0	0	0	0	0	1	0	1
Wurttembergische Kommunale Landesbank	0	0	0	0	0	0	0	1	0	0	1

Note 1: In Table B14 a loan composed by tranches of different maturity were presented as different loans, to distinguish between them, even if the lenders that acted as managers were the same. Those loans are considered just as one in this Table, to avoid artificially inflating the number of managers.

Note 2: During the 1973-82 decade several mergers took place between banks. As it is clear from the notes at the end of the Table, when the merger took place up to 1982, both banks are considered as the one that they merged into.

Source: Constructed with data from Table B14.

Table B18. Average Spreads on Publicly Guaranteed Loans, 1974-82
(percentage points above LIBOR)

	Industrial Countries (1)	Non-Oil LDCs (2)	Rescheduled Countries (3)	Mexico (4)	(4)-(1)	(4)-(2)	(4)-(3)
1974.1	0.67	1.00	1.05	0.685	0.015	-0.315	-0.365
1974.2	0.59	1.07	1.18	0.708	0.118	-0.362	-0.472
1974.3	0.90	1.17	1.01	1.063	0.163	-0.107	0.053
1974.4	1.36	1.43	1.35	1.200	-0.160	-0.230	-0.150
1975.1	1.41	1.68	1.73	1.500	0.090	-0.180	-0.230
1975.2	1.54	1.78	1.78	1.479	-0.071	-0.311	-0.311
1975.3	1.55	1.74	1.80	1.521	-0.029	-0.219	-0.279
1975.4	1.58	1.72	1.79	1.417	-0.163	-0.303	-0.373
1976.1	1.52	1.84	1.86	1.333	-0.187	-0.507	-0.527
1976.2	1.28	1.81	1.95	1.542	0.262	-0.268	-0.408
1976.3	1.44	1.95	1.98	1.542	0.102	-0.408	-0.438
1976.4	1.33	1.82	2.03	1.625	0.295	-0.195	-0.405
1977.1	1.30	1.79	1.94	1.613	0.313	-0.177	-0.327
1977.2	1.23	1.73	1.95	1.543	0.313	-0.187	-0.407
1977.3	1.28	1.66	2.00	1.658	0.378	-0.002	-0.342
1977.4	1.09	1.66	1.88	1.750	0.660	0.090	-0.130
1978.1	0.92	1.52	1.87	1.375	0.455	-0.145	-0.495
1978.2	0.93	1.47	1.69	1.303	0.373	-0.167	-0.387
1978.3	0.87	1.29	1.54	0.938	0.068	-0.352	-0.602
1978.4	0.73	1.13	1.20	0.961	0.231	-0.169	-0.239
1979.1	0.65	0.95	1.25	0.844	0.225	-0.075	-0.375
1979.2	0.62	0.87	1.02	0.683	0.112	-0.138	-0.288
1979.3	0.67	0.76	0.91	0.705	0.018	-0.072	-0.222
1979.4	0.49	0.74	0.87	0.652	0.172	-0.078	-0.208
1980.1	0.56	0.78	0.91	-	-	-	-
1980.2	0.57	0.84	0.91	0.575	0.005	-0.265	-0.335
1980.3	0.54	0.82	1.12	0.422	-0.118	-0.398	-0.698
1980.4	0.56	1.03	1.25	0.416	-0.103	-0.573	-0.793
1981.1	0.54	0.82	2.00	0.543	0.003	-0.277	-1.457
1981.2	0.47	1.12	2.25	0.500	0.030	-0.620	-1.750
1981.3	0.46	0.94	1.75	0.507	0.047	-0.433	-1.243
1981.4	0.46	0.90	1.50	0.525	0.065	-0.375	-0.975
1982.1	0.57	0.85	1.75	0.703	0.133	-0.147	-1.047
1982.2	0.47	1.10	1.75	0.797	0.327	-0.303	-0.953

Sources: Folkerts-Landau (1985, 331) for columns 1-3. Column 4 calculated from table B14.

Table B19. Spreads on Euroloans for Mexican Public Borrowers, 1973-82
(percentage points above LIBOR)

Period	UMS	PEMEX	CFE	NAFINSA	BANOBRAS	BANRURAL	FINASA
01.73	-	0.750	-	-	-	-	-
04.73	-	-	-	0.750	-	-	-
07.73	-	-	-	-	0.657	-	-
09.73	-	0.600	-	-	-	-	-
12.73	-	0.563	-	-	-	-	-
01.74	0.554	-	-	-	-	-	-
03.74	-	0.500	0.688	-	-	-	-
04.74	-	0.625	-	-	1.000	-	-
05.74	-	-	0.750	-	-	-	-
06.74	-	-	-	-	0.750	-	-
07.74	-	-	-	-	1.000	-	-
09.74	-	-	-	-	-	1.125	-
10.74	-	-	1.250	1.000	1.250	-	-
12.74	1.375	-	-	-	-	-	-
02.75	-	-	-	-	-	1.500	-
03.75	-	-	-	1.500	1.500	-	-
05.75	1.500	1.500	-	1.500	-	-	1.375
07.75	-	-	-	1.500	-	-	-
08.75	-	-	-	-	1.500	-	-
09.75	-	-	-	-	-	1.500	-
10.75	-	1.500	-	1.500	-	-	-
11.75	1.500	1.250	-	1.250	-	-	-
12.75	-	-	-	-	1.250	-	-
02.76	-	-	-	1.250	-	-	-
03.76	-	-	-	-	1.500	-	-
04.76	-	-	1.750	1.375	-	-	-
05.76	-	1.500	-	-	-	-	-
07.76	-	-	-	-	-	-	1.375
08.76	-	-	-	1.750	-	-	-
09.76	-	-	-	-	-	-	1.500
11.76	1.625	-	-	-	-	-	-
02.77	-	-	-	-	1.500	-	-
03.77	-	1.588	-	1.750	-	-	-
05.77	-	-	-	-	1.585	-	-
06.77	-	-	-	-	-	1.500	-
07.77	-	-	-	1.550	-	1.588	-
09.77	-	-	-	-	-	1.625	-
11.77	1.750	-	-	-	-	-	-
01.78	-	-	1.375	-	-	-	-
02.78	-	1.000	-	-	-	-	-
03.78	-	1.750	-	-	-	-	-
04.78	-	1.250	-	-	-	-	-

Table continues...

Table B19. Spreads on Euroloans for Mexican Public Borrowers, 1973-82 (continues)
(percentage points above LIBOR)

Period	UMS	PEMEX	CFE	NAFINSA	BANOBRAS	BANRURAL	FINASA
06.78	-	-	1.375	1.250	-	-	-
07.78	-	-	1.000	-	-	-	-
08.78	-	-	-	-	-	1.000	-
09.78	-	0.750	-	-	-	-	-
10.78	0.500	-	0.875	-	-	-	-
11.78	1.250	0.875	-	-	-	-	1.000
12.78	-	-	-	-	0.750	-	-
01.79	-	-	-	0.938	-	-	-
02.79	-	0.625	-	-	-	-	-
03.79	-	0.500	0.938	-	-	-	-
04.79	-	0.625	-	-	-	-	-
05.79	0.375	0.600	0.875	-	-	-	0.875
06.79	-	0.625	0.875	-	-	-	-
07.79	0.500	0.688	0.750	-	0.750	0.750	-
08.79	-	-	0.688	0.750	-	-	-
09.79	0.500	0.500	0.750	0.625	-	-	-
10.79	-	-	0.750	0.500	-	-	-
11.79	-	0.500	0.794	-	-	-	-
12.79	0.688	-	-	0.500	-	-	-
04.80	-	-	-	-	-	-	0.500
05.80	0.521	-	-	-	-	-	-
07.80	-	-	0.563	-	-	-	-
08.80	-	-	-	-	-	-	0.547
09.80	-	0.250	-	-	-	-	-
10.80	-	-	-	-	0.547	-	-
11.80	0.531	0.250	-	-	-	-	-
12.80	-	0.250	-	-	-	-	-
01.81	-	-	0.563	-	-	-	-
02.81	-	-	-	-	-	0.500	-
04.81	-	-	-	-	0.500	-	-
05.81	-	-	-	0.500	-	-	-
06.81	-	0.500	-	-	-	-	-
07.81	0.500	-	-	-	-	-	-
08.81	0.438	0.500	-	-	0.500	-	-
09.81	-	0.500	0.500	-	-	-	-
10.81	-	0.125	-	-	-	-	-
12.81	-	-	-	0.688	-	-	-
02.82	0.500	-	-	-	-	-	-
03.82	-	-	-	-	-	0.838	-
04.82	-	0.875	-	-	-	-	-
05.82	-	0.250	-	-	-	0.375	-
06.82	1.333	-	-	-	-	-	-
07.82	-	0.500	-	-	-	-	-
08.82	-	0.500	-	-	-	-	-

Source: Constructed with data from Table B14.

Table B20. Fees on Publicised Eurocurrency Loans to Mexico, 1975-80
(minimum and maximum, in percentages)

Year	Commitment Fee	Management Fee	Participation Fee	Others
1975 (12)				
Minimum	0.500	n.a.	0.125	n.a.
Maximum	0.500	n.a.	0.750	n.a.
1976 (10)				
Minimum	0.500	n.a.	0.125	n.a.
Maximum	0.750	n.a.	0.777	n.a.
1977 (4)				
Minimum	n.a.	1.000 ^a	0.125	n.a.
Maximum	n.a.	1.000 ^a	0.875	n.a.
1978 (6)				
Minimum	0.500 ^a	0.375	0.063	0.250
Maximum	0.500 ^a	0.750	0.250	0.750
1979 (9)				
Minimum	0.188	0.250 ^a	0.063	0.250
Maximum	0.500	0.250 ^a	0.250	0.375
1980 (11)				
Minimum	0.125	0.375	0.050	0.250
Maximum	0.625	0.500	0.313	1.125
1975-80 (52)				
Minimum	0.125	0.250	0.050	0.250
Maximum	0.750	1.000	0.875	1.125

a. Only one loan, therefore the same numbers as minimum and maximum.

Source: Constructed with data from table B14.

Table B21. Price of Mexican Debt in the Secondary Market, 1985-90
(cents per dollar)

	1985	1986	1987	1988	1989	1990
January	-	70.0	57.0	51.0	41.5	38.0
February	-	70.0	58.0	48.0	33.15	40.0
March	-	64.0	58.0	48.0	42.50	-
April	-	58.0	58.0	51.0	42.75	-
May	-	58.0	59.0	51.3	41.00	-
June	-	58.0	56.0	51.5	40.00	-
July	-	58.0	53.0	50.5	44.00	-
August	-	58.0	50.0	46.5	43.25	-
September	-	58.0	48.0	46.5	40.75	-
October	-	57.0	51.0	46.3	36.75	-
November	-	56.0	53.0	43.0	36.75	-
December	70.0	56.0	50.0	43.0	36.00	-

Source: Merrill Lynch and *LatinFinance*, several issues.

Table B22. Public Internal Debt, 1960-95

Year	Nominal	Dollars	% GDP	Year	Nominal	Dollars	% GDP
1960	7625.4	610.5	4.77	1979	499929	21921.5	15.69
1961	7963.0	637.5	4.60	1980	683974	29801.4	15.30
1962	8404.3	672.8	4.50	1981	1041333	42479.1	16.10
1963	8791.1	703.8	4.23	1982	2767745	48407.7	26.58
1964	15002.8	1201.1	6.11	1983	3718419	24740.9	19.83
1965	26443.1	2117.0	9.89	1984	5335.1	28808.9	17.26
1966	32179.7	2576.3	10.83	1985	9772.8	31496.9	19.49
1967	36008.0	2882.8	11.08	1986	23755.7	37241.9	28.86
1968	40948.4	3278.3	11.38	1987	61555.5	43786.5	30.27
1969	47788.0	3825.9	12.01	1988	108947.0	47583.8	26.39
1970	52782.5	4225.8	11.88	1989	137600.7	55408.7	25.25
1971	60971.9	4881.4	12.42	1990	165417.4	58279.3	22.51
1972	74241.0	5943.7	13.08	1991	159107.4	52759.8	16.83
1973	98616.0	7895.2	14.15	1992	133478.0	43131.7	11.88
1974	130811.0	10472.8	14.34	1993	134769.3	43260.5	10.73
1975	176230.0	14109.0	15.73	1994	178960.3	53039.4	12.57
1976	243367.0	15757.8	17.36	1995	155359.9	24256.4	8.44
1977	290936.0	12885.2	15.30	1996	192162.0	25291.1	7.60
1978	369919.0	16248.0	15.32	1997	273655.7	34559.0	8.61

Sources: Banco de México(a), several years, for 1960-84; SHCP Internet database for 1985-97.

Table B23. Net Flows of Public Debt, 1966-97
(million dollars)

Year	Total	Internal	External	Year	Total	Internal	External
1966	661.9	459.3	202.6	1982	11842.2	5928.6	5913.6
1967	767.7	306.5	461.2	1983	-19984.8	-23666.8	3682.0
1968	765.6	395.5	370.1	1984	10889.7	4068.0	6821.7
1969	1151.3	547.6	603.7	1985	5390.1	2687.9	2702.2
1970	884.6	399.9	484.7	1986	9015.8	5745.0	3270.8
1971	938.7	655.6	283.1	1987	12600.5	6544.6	6055.9
1972	1581.1	1062.3	518.8	1988	3393.6	3797.2	-403.6
1973	3957.3	1951.5	2005.8	1989	2880.7	7824.9	-4944.2
1974	5482.1	2577.5	2904.6	1990	4581.9	2870.6	1711.3
1975	8110.3	3636.3	4474.0	1991	-3302.0	-5519.5	2217.5
1976	6800.0	1648.8	5151.2	1992	-13860.7	-9628.1	-4232.6
1977	439.3	-2872.6	3311.9	1993	3120.9	128.7	2992.2
1978	6715.0	3362.8	3352.2	1994	16467.4	9779.0	6688.4
1979	9166.4	5673.5	3492.9	1995	-13285.1	-28783.0	15497.9
1980	11935.4	7879.8	4055.6	1996	-1614.5	1034.7	-2649.2
1981	31825.6	12677.8	19147.8	1997	474.6	9267.9	-8793.3

Sources: Calculated from tables A17, B1 and B21.

Table B24. Tesobono Debt, 1989-96
(million dollars)

	1989	1990	1991	1992	1993	1994	1995	1996
January	0.0	277.1	30.2	471.2	301.5	2048.3	23888.2	115.7
February	0.0	280.9	32.1	424.2	59.5	2191.1	18747.7	29.9 ^a
March	0.0	272.9	30.4	532.6	227.5	4157.1	16168.0	0.0
April	0.0	692.6	39.6	338.0	30.3	10957.3	14188.6	0.0
May	0.0	626.8	24.7	338.6	28.9	12589.4	11510.7	0.0
June	0.0	485.5	21.9	447.8	84.1	13597.8	9959.2	0.0
July	9.9	254.2	24.8	436.3	243.1	18673.1	6442.9	0.0
August	27.4	198.5	35.1	583.0	395.7	23798.7	3172.9	0.0
September	42.2	145.2	79.5	938.7	672.6	22622.5	2566.2	0.0
October	52.9	93.1	64.7	657.6	1012.5	21644.3	1920.8	0.0
November	68.5	58.4	222.4	371.4	1929.2	24691.2	718.6	0.0
December	73.8	39.8	327.0	336.9	1598.5	29206.1	245.7	0.0

a. The last payment was made on February 15.

Source: Banco de México.

Table B25. Tesobono Amounts and Interest Rates, 1993-95
(million dollars and percentage points)

Date	28-day		91-day		182-day	
	Amount	Int. Rate	Amount	Int. Rate	Amount	Int. Rate
07.01.93	50	2.49	-	-	-	-
14.01.93	50	3.00	-	-	-	-
21.01.93	40	3.50	-	-	-	-
28.01.93	300	4.50	-	-	-	-
04.02.93	100	4.50	-	-	-	-
11.02.93	500	3.51	-	-	-	-
18.02.93	100	4.00	-	-	-	-
25.02.93	450	4.50	-	-	-	-
04.03.93	200	4.48	-	-	-	-
11.03.93	550	4.50	-	-	-	-
18.03.93	250	4.50	-	-	-	-
25.03.93	350	3.96	-	-	-	-
01.04.93	50	4.50	-	-	-	-
07.04.93	500	4.01	-	-	-	-
15.04.93	50	4.00	-	-	-	-
22.04.93	250	4.50	-	-	-	-
29.04.93	50	4.50	-	-	-	-
06.05.93	350	4.50	-	-	-	-
13.05.93	100	4.01	-	-	-	-
20.05.93	300	4.24	-	-	-	-
27.05.93	100	4.50	-	-	-	-
03.06.93	100	4.50	350	5.75	-	-
10.06.93	100	4.47	100	6.00	-	-
17.06.93	100	4.50	300	5.95	-	-
24.06.93	100	4.41	100	5.75	-	-
01.07.93	100	4.25	100	5.98	-	-
08.07.93	100	4.00	120	5.19	-	-
15.07.93	100	3.75	100	4.98	-	-
22.07.93	-	-	100	5.27	100	5.50
29.07.93	-	-	100	5.09	100	5.30
05.08.93	-	-	80	5.08	60	5.29
12.08.93	-	-	80	5.07	50	5.89
19.08.93	-	-	80	4.99	50	5.30
26.08.93	-	-	60	4.95	50	5.25
02.09.93	-	-	280	5.11	50	5.23
09.09.93	-	-	60	5.39	60	5.33
23.09.93	-	-	130	4.70	190	4.98
30.09.93	-	-	60	5.15	80	5.50
07.10.93	-	-	60	4.93	80	5.38
14.10.93	-	-	60	5.02	80	5.09
21.10.93	-	-	60	4.99	80	5.05
28.10.93	-	-	40	4.94	80	4.92
04.11.93	-	-	60	5.03	80	5.35
11.11.93	-	-	2700	5.50	2600	4.96
18.11.93	-	-	60	5.26	60	5.95
25.11.93	-	-	60	5.29	70	5.10
02.12.93	-	-	60	5.33	70	5.45
09.12.93	-	-	60	5.14	80	5.25
16.12.93	-	-	250	5.00	200	5.19
23.12.93	-	-	310	4.98	80	4.95
30.12.93	-	-	60	5.09	80	5.85

Table continues...

Table B25. Tesobono Amounts and Interest Rates, 1993-94
(million dollars and percentage points)

Date	28-day		91-day		182-day		364-day	
	Amount	Int. Rate	Amount	Int. Rate	Amount	Int. Rate	Amount	Int. Rate
06.01.94	-	-	60	5.50	80	5.73	-	-
13.01.94	-	-	60	4.90	100	5.18	-	-
20.01.94	-	-	60	4.79	80	5.16	-	-
27.01.94	-	-	60	4.67	90	5.17	-	-
03.02.94	-	-	40	5.50	100	5.10	-	-
10.02.94	-	-	30	5.17	100	5.30	-	-
17.02.94	-	-	60	5.05	100	5.18	-	-
24.02.94	-	-	100	4.34	80	5.10	-	-
03.03.94	-	-	200	4.00	200	4.84	-	-
10.03.94	-	-	200	4.38	180	5.23	-	-
17.03.94	-	-	500	5.89	300	5.98	-	-
24.03.94	-	-	120	6.79	120	6.74	-	-
31.03.94	-	-	4000	7.27	4000	7.79	-	-
07.04.94	-	-	200	7.10	200	7.52	-	-
14.04.94	-	-	250	6.78	250	7.20	-	-
21.04.94	-	-	2000	6.61	2000	6.69	-	-
28.04.94	100	7.00	1500	7.75	1500	8.88	-	-
04.05.94	-	-	1500	7.25	1500	8.74	1500	9.00
12.05.94	-	-	1500	8.17	1200	8.25	1000	8.42
19.05.94	-	-	800	7.67	600	7.74	600	7.89
26.05.94	-	-	400	7.19	300	7.25	300	7.38
02.06.94	-	-	200	7.05	250	7.12	350	7.24
09.06.94	-	-	500	7.15	400	7.21	400	7.35
16.06.94	-	-	400	7.49	350	7.56	250	7.71
23.06.94	-	-	200	7.00	250	7.58	400	7.88
30.06.94	-	-	400	6.95	500	7.67	500	7.88
07.07.94	-	-	600	6.90	700	7.81	400	7.88
14.07.94	-	-	2400	7.50	2400	7.74	2320	8.48
21.07.94	-	-	1700	7.35	1800	8.10	1800	8.64
28.07.94	-	-	1700	7.25	1500	7.85	1700	8.69
04.08.94	-	-	1500	7.05	1700	7.63	1700	8.49
11.08.94	-	-	1500	7.10	1000	7.25	2000	8.20
18.08.94	-	-	700	7.40	500	7.45	1000	8.41
25.08.94	-	-	800	7.24	800	7.10	1000	7.98
01.09.94	-	-	1000	6.60	1000	7.08	1000	7.78
08.09.94	-	-	1000	6.55	1000	6.90	1000	7.71
15.09.94	-	-	800	6.60	800	6.95	800	7.84
22.09.94	-	-	800	6.59	800	6.75	800	7.77
29.09.94	-	-	750	6.79	750	7.25	750	7.80
06.10.94	-	-	500	6.94	600	7.66	600	8.10
13.10.94	-	-	700	6.73	700	7.63	700	8.15
20.10.94	-	-	500	6.73	800	7.69	800	8.20
27.10.94	-	-	300	6.85	600	7.75	600	8.42
03.11.94	-	-	500	6.81	200	8.00	600	8.63
10.11.94	-	-	400	6.82	400	7.95	600	8.54
17.11.94	-	-	700	6.77	600	7.70	700	8.54
24.11.94	-	-	700	7.50	800	8.22	1200	8.88
30.11.94	-	-	700	7.29	700	8.32	800	9.05
08.12.94	-	-	500	7.58	800	8.50	900	9.10
15.12.94	-	-	300	7.40	600	8.39	600	8.89
22.12.94	-	-	5000	8.28	5000	8.87	5000	9.61
29.12.94	-	-	1000	10.49	50	10.09	-	-

Table continues...

Table B25. Tesobono Amounts and Interest Rates, 1993-94
(million dollars and percentage points)

Date	28-day		91-day		182-day		364-day	
	Amount	Int. Rate	Amount	Int. Rate	Amount	Int. Rate	Amount	Int. Rate
[								
05.01.95	-	-	200	12.49	300	12.11	-	-
12.01.95	500	20.00	400	19.50	-	-	-	-
19.01.95	-	-	600	19.75	500	19.74	700	19.75
26.01.95	-	-	600	24.98	600	26.99	600	21.40

Source: Compilation of weekly auction results published in the Mexican press by Banco de México.

Table B26. Amortisation of the Tesobono Debt during 1995
(million dollars)

Date	Balance	Amount Covered		Date	Balance	Amount Covered	
		(1)	(2)			(1)	(2)
30/12/94	29206			29/06/95	9959	212	19247
05/01/95	28608	598	598	06/07/95	9788	171	19418
12/01/95	27982	626	1224	13/07/95	8922	866	20284
19/01/95	26474	1508	2732	20/07/95	7873	1049	21333
26/01/95	23888	2586	5318	27/07/95	6443	1430	22763
02/02/95	22142	1746	7064	03/08/95	5259	1184	23947
09/02/95	21602	540	7604	10/08/95	4354	905	24852
16/02/95	20946	656	8260	17/08/95	3563	791	25643
23/02/95	20298	648	8908	24/08/95	3359	204	25847
28/02/95	18748	1550	10458	31/08/95	3173	186	26033
02/03/95	18372	376	10834	07/09/95	3053	120	26153
09/03/95	17882	490	11324	14/09/95	2992	61	26214
16/03/95	17341	541	11865	21/09/95	2816	176	26390
23/03/95	16593	748	12613	28/09/95	2566	250	26640
30/03/95	16168	425	13038	05/10/95	2503	63	26703
06/04/95	15985	183	13221	11/10/95	2403	100	26803
12/04/95	15513	472	13693	19/10/95	2171	232	27035
20/04/95	14777	736	14429	26/10/95	1921	250	27285
27/04/95	14189	588	15017	01/11/95	1742	179	27464
04/05/95	13415	774	15791	09/11/95	1562	180	27644
11/05/95	12451	964	16755	16/11/95	1223	339	27983
18/05/95	11915	536	17291	23/11/95	926	297	28280
25/05/95	11511	404	17695	30/11/95	719	207	28487
01/06/95	11106	405	18100	07/12/95	628	91	28578
08/06/95	10709	397	18497	14/12/95	381	247	28825
15/06/94	10509	200	18697	21/12/95	246	135	28960
22/06/95	10171	338	19035				

(1) Amount paid that day.

(2) Total amount paid accumulated throughout the year.

Source: Banco de México (1995a, 188).

Table B27. Foreign Investment in Mexican Government Securities, 1991-97
(million dollars)

Period	Cetes	Pagafes	Bondes	Ajustabonos	Tesobonos	Total
01.91	1373.8	88.8	1569.5	292.0	18.1	3342.1
02.91	1678.6	125.0	1714.0	492.9	15.0	4025.6
03.91	2032.4	125.7	1709.2	552.3	17.1	4436.7
04.91	2830.9	134.4	1586.4	997.9	32.9	5582.4
05.91	2687.6	203.8	1513.6	975.7	13.1	5393.9
06.91	2221.8	221.7	1330.7	1121.8	7.9	4903.8
07.91	1696.4	30.9	1191.6	505.8	1.1	3425.8
08.91	1732.9	180.7	662.0	905.1	6.6	3487.3
09.91	2438.4	300.3	1121.0	1107.4	9.6	4976.8
10.91	2014.0	210.8	837.1	1333.9	14.6	4410.4
11.91	3429.0	86.7	831.0	1376.9	128.7	5852.4
12.91	2951.3	21.1	725.6	1509.5	256.9	5464.3
01.92	2830.4	21.0	902.2	1555.3	289.2	5598.1
02.92	4481.7	23.5	946.4	1622.0	292.4	7366.0
03.92	4356.6	0.0	672.0	1863.7	323.5	7215.7
04.92	4017.1	0.0	908.5	2028.1	248.5	7202.1
05.92	4901.7	0.0	778.3	2429.0	226.1	8335.2
06.92	4816.4	0.0	543.0	2587.3	296.0	8242.7
07.92	6830.2	0.0	513.3	2863.7	282.8	10490.0
08.92	7494.7	0.0	323.5	3400.6	373.8	11592.6
09.92	7930.0	0.0	530.6	3294.3	519.0	12273.9
10.92	8248.0	0.0	825.0	3530.0	463.4	13066.5
11.92	9182.2	0.0	939.7	3730.3	224.6	14076.8
12.92	9160.9	0.0	1238.0	3645.1	197.6	14241.5
01.93	10584.9	0.0	1780.9	3832.9	143.6	16342.3
02.93	11147.6	0.0	1822.3	4022.5	15.9	17008.2
03.93	12008.9	0.0	2063.8	4331.4	73.8	18477.9
04.93	12252.7	0.0	2120.8	4931.9	0.0	19305.4
05.93	11569.6	0.0	2366.3	4913.5	0.0	18849.4
06.93	11696.7	0.0	2589.2	5264.2	49.0	19599.0
07.93	12967.2	0.0	2421.5	5055.3	163.0	20607.0
08.93	12930.7	0.0	2278.8	4877.6	318.5	20405.7
09.93	14019.7	0.0	2408.1	4465.0	573.6	21466.3
10.93	13587.9	0.0	1955.9	4536.5	827.5	20907.7
11.93	12531.1	0.0	1000.0	4307.4	1218.7	19057.2
12.93	15352.2	0.0	844.7	4397.3	1283.8	21877.9
01.94	15806.6	0.0	965.8	4281.6	1448.7	22502.7
02.94	16648.5	0.0	717.1	4333.6	1777.1	23476.2
03.94	15119.9	0.0	744.1	4286.0	3065.7	23215.7
04.94	10987.7	0.0	244.9	3642.2	7314.9	22189.6
05.95	9926.1	0.0	271.5	3529.9	9322.7	23050.2
06.94	9080.7	0.0	560.2	2918.8	10466.4	23026.1
07.94	7878.0	0.0	499.7	2469.2	13374.9	24221.8
08.94	7427.4	0.0	177.5	1657.1	15831.2	25093.2
09.94	7079.9	0.0	146.9	1850.8	15452.4	24530.0
10.94	7201.2	0.0	174.9	1661.8	15043.7	24081.6
11.94	5507.6	0.0	58.0	1159.5	15914.0	22639.0
12.94	2535.2	0.0	37.6	525.8	16488.3	19586.9

Table continues...

Table B27. Foreign Investment in Mexican Government Securities, 1991-97
(million dollars)

Period	Cetes	Bon-des	Ajustabonos	Tesobonos	Total
01.95	2499.7	71.8	522.4	15003.2	18097.1
02.95	2919.5	48.1	586.0	12797.7	16351.3
03.95	2273.3	56.6	478.4	11031.6	13840.0
04.95	2792.4	122.4	458.7	9904.8	13278.3
05.95	3007.1	216.6	666.2	7531.4	11421.4
06.95	3274.7	154.1	586.5	6565.1	10580.4
07.95	3590.5	120.6	564.3	4281.9	8557.3
08.95	3776.0	191.1	664.2	2163.8	6795.1
09.95	3885.2	93.7	389.1	1554.9	5922.8
10.95	3474.5	103.3	664.3	955.7	5197.9
11.95	2842.5	158.6	366.6	471.6	3839.3
12.95	2453.6	118.1	465.3	184.2	3221.2
01.96	3062.2	201.3	301.6	12.9	3660.5
02.96	2419.4	113.3	243.0	0.0	2775.8
03.96	2211.2	175.4	309.4	0.0	2696.0
04.96	2200.8	135.1	256.3	0.0	2592.3
05.96	2057.4	108.4	168.0	0.0	2333.8
06.96	1860.1	54.2	150.7	0.0	2065.0
07.96	1812.4	57.0	137.8	0.0	2007.3
08.96	2311.1	63.1	79.2	0.0	2455.5
09.96	2016.2	50.4	54.8	0.0	2123.5
10.96	2164.4	77.5	50.7	0.0	2294.8
11.96	2948.0	104.6	41.0	0.0	3098.7
12.96	3029.7	326.3	37.7	0.0	3395.8
01.97	2772.5	180.5	49.7	0.0	3012.2
02.97	3198.8	228.9	21.9	0.0	3470.3
03.97	3345.9	171.9	24.2	0.0	3562.1
04.97	3547.8	141.1	28.4	0.0	3739.8
05.97	3318.0	108.0	42.0	0.0	3510.1
06.97	3059.5	194.2	17.8	0.0	3329.2
07.97	3552.7	109.5	7.7	0.0	3798.7
08.97	3669.2	169.4	6.2	0.0	3990.6
09.97	3635.1	234.6	11.3	0.0	3998.8
10.97	2820.8	203.4	16.9	0.0	3090.6
11.97	2619.3	153.2	7.8	0.0	2847.3
12.97	2998.0	256.1	7.7	0.0	3320.7

Source: Banco de México(b), Statistical Appendix, several years and Internet database.

APPENDIX C

INTERNATIONAL CAPITAL MARKETS STATISTICS

Table C1. International Inflation and Interest Rates, 1956-97
(percentages)

Year	Nominal LIBOR ^a	Nominal Prime	World Inflation ^b	U.S. Inflation ^c	Real LIBOR ^d	Real LIBOR ^e	Real Prime ^e
1956		3.77		1.49			
1957		4.20		3.31			
1958		3.83		2.85			
1959		4.48		0.69			
1960		4.82		1.72			3.05
1961		4.50		1.01			3.45
1962		4.50		1.00			3.46
1963		4.50		1.32			3.13
1964		4.50	2.6	1.31			3.15
1965		4.54	3.1	1.61			2.88
1966		5.63	3.5	2.86			2.69
1967		5.63	2.9	3.09			2.47
1968	6.44	6.31	3.9	4.19	2.44	2.16	2.03
1969	9.74	7.96	4.7	5.46	4.82	4.06	2.37
1970	8.47	7.91	5.6	5.72	2.72	2.60	2.07
1971	6.84	5.73	5.3	4.38	1.46	2.36	1.29
1972	5.86	5.25	4.8	3.21	1.01	2.57	1.98
1973	9.19	8.03	7.9	6.22	1.20	2.80	1.70
1974	11.07	10.81	13.4	11.04	-2.05	0.03	-0.20
1975	7.75	7.86	11.4	9.13	-3.28	-1.26	-1.16
1976	6.12	6.84	8.6	5.76	-2.28	0.34	1.02
1977	6.35	6.83	8.8	6.50	-2.25	-0.14	0.31
1978	9.14	9.06	7.5	7.59	1.53	1.44	1.37
1979	12.03	12.67	9.7	11.35	2.12	0.61	1.19
1980	13.84	15.26	12.4	13.50	1.28	0.30	1.55
1981	16.64	18.87	10.4	10.32	5.65	5.73	7.75
1982	13.41	14.85	7.7	6.16	5.30	6.83	8.19
1983	9.78	10.79	5.2	3.21	4.35	6.36	7.34
1984	11.10	12.04	5.0	4.32	5.81	6.50	7.40
1985	8.52	9.93	4.4	3.56	3.95	4.79	6.15
1986	6.69	8.33	2.6	1.86	3.99	4.74	6.35
1987	7.20	8.21	3.2	3.65	3.88	3.43	4.40
1988	8.01	9.32	3.5	4.14	4.36	3.72	4.98
1989	9.14	10.87	4.6	4.82	4.34	4.12	5.77
1990	8.20	10.01	5.2	5.40	2.85	2.65	4.37
1991	5.95	8.46	4.4	4.21	1.48	1.67	4.08
1992	3.80	6.25	3.1	3.01	0.68	0.77	3.15
1993	3.30	6.00	2.8	2.99	0.49	0.30	2.92
1994	4.95	7.15	2.3	2.56	2.59	2.33	4.47
1995	5.99	8.83	2.4	2.83	3.51	3.07	5.83
1996	5.46	8.27	2.4	2.95	2.99	2.44	5.16
1997	5.72	8.44	2.1	2.29	3.55	3.35	6.01

Note: Because most of the eurocurrency credits, generally paying a LIBOR interest rate plus a spread, were denominated in U.S. dollars (94.3 percent on average in the 1972-82 period) -as naturally were those granted directly by U.S. banks and paying Prime rate plus a spread- both interest rates are deflated by the U.S. inflation, and additionally LIBOR by the "world" (industrial countries average, as classified by the IMF) inflation.

a. Average LIBOR on six-month U.S. deposits.

b. Industrial countries CPI average percentage change.

c. U.S. CPI average percentage change.

d. Deflated by the industrial countries' inflation.

e. Deflated by the U.S. inflation.

Sources: Banco de México(a, d), several issues; IMF(a, c), several issues; U.S. Federal Reserve Internet database.

Table C2. LIBOR^a, 1969-97

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
January	7.56	9.56	6.30	5.64	6.35	9.32	8.61	6.07	5.57	7.64
February	8.38	9.13	6.01	5.54	7.37	8.49	7.48	6.17	5.56	7.64
March	8.50	8.50	5.70	5.68	8.42	9.24	7.43	6.37	5.53	8.16
April	8.56	8.56	6.34	5.85	8.32	10.49	7.91	5.99	5.45	7.75
May	10.25	9.06	7.23	5.41	8.63	11.62	7.30	6.65	6.12	8.18
June	10.50	9.06	7.33	5.45	8.89	12.03	6.94	6.92	6.13	8.78
July	10.50	8.94	7.09	6.14	10.46	13.48	7.96	6.38	6.10	9.02
August	11.38	8.38	8.13	6.08	11.47	13.64	8.19	6.18	6.51	8.81
September	11.25	8.44	8.35	6.15	11.17	12.74	8.41	6.00	6.79	9.36
October	9.75	8.00	6.75	6.22	9.49	10.97	7.86	5.79	7.44	10.43
November	10.21	7.25	6.39	6.09	9.63	10.03	7.45	5.64	7.35	11.83
December	10.06	6.75	6.38	6.22	10.37	10.28	7.30	5.28	7.46	12.03
Average	9.74	8.47	6.83	5.87	9.21	11.03	7.74	6.12	6.33	9.14
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
January	11.76	14.28	16.76	14.98	9.16	9.98	8.78	8.04	6.05	7.28
February	11.06	15.38	17.02	15.80	9.40	10.09	9.45	7.90	6.31	6.80
March	10.90	18.64	15.38	14.95	9.38	10.68	9.91	7.40	6.37	6.91
April	10.77	17.11	15.93	15.20	9.33	11.11	9.09	6.78	6.88	7.24
May	10.91	11.18	18.32	14.51	9.07	12.04	8.42	6.87	7.49	7.63
June	10.52	9.47	17.03	15.59	9.92	12.31	7.83	6.96	7.35	7.77
July	10.83	9.53	18.20	14.89	10.38	12.59	8.05	6.54	7.05	8.28
August	11.52	11.21	18.78	12.50	10.68	12.08	8.20	6.06	7.18	8.77
September	12.64	12.45	17.99	12.58	10.07	11.90	8.34	5.88	7.88	8.58
October	14.49	13.52	16.61	10.66	9.66	11.06	8.19	5.87	8.39	8.54
November	14.75	15.97	13.65	9.97	9.93	9.79	8.02	5.94	7.44	8.89
December	14.28	17.82	13.99	9.71	10.26	9.36	7.99	6.09	7.86	9.32
Average	12.04	13.88	16.64	13.45	9.77	11.08	8.52	6.69	7.19	8.00
	1989	1990	1991	1992	1993	1994	1995	1996	1997	
January	9.41	8.24	7.23	4.08	3.37	3.30	6.70	5.30	5.54	
February	9.78	8.30	6.58	4.15	3.24	3.62	6.43	5.05	5.46	
March	10.48	8.53	6.52	4.43	3.21	4.02	6.35	5.29	5.66	
April	10.22	8.62	6.26	4.19	3.21	4.37	6.28	5.43	5.89	
May	9.65	8.51	6.07	3.99	3.22	4.88	6.08	5.47	5.86	
June	9.15	8.29	6.30	4.00	3.37	4.85	5.79	5.64	5.78	
July	8.68	8.13	6.30	3.54	3.37	5.15	5.75	5.72	5.71	
August	8.62	8.01	5.82	3.43	3.34	5.16	5.82	5.58	5.70	
September	8.82	8.09	5.64	3.22	3.25	5.38	5.74	5.69	5.73	
October	8.51	8.05	5.33	3.32	3.26	5.77	5.79	5.52	5.71	
November	8.22	7.94	4.93	3.70	3.40	6.10	5.63	5.41	5.74	
December	8.17	7.67	4.42	3.60	3.37	6.77	5.50	5.46	5.79	
Average	9.14	8.20	5.95	3.80	3.30	4.95	5.99	5.46	5.71	

a. Average of the six-month LIBOR.

Sources: Banco de México (d) for 1969-70; U.S. Federal Reserve Internet database for 1971-97.

Table C3. Prime Rate, 1960-97

	1960	1961	1962	1963	1964	1965	1966	1967
January	5.00	4.50	4.50	4.50	4.50	4.50	5.00	5.96
February	5.00	4.50	4.50	4.50	4.50	4.50	5.00	5.75
March	5.00	4.50	4.50	4.50	4.50	4.50	5.35	5.71
April	5.00	4.50	4.50	4.50	4.50	4.50	5.50	5.50
May	5.00	4.50	4.50	4.50	4.50	4.50	5.50	5.50
June	5.00	4.50	4.50	4.50	4.50	4.50	5.52	5.50
July	5.00	4.50	4.50	4.50	4.50	4.50	5.75	5.50
August	4.85	4.50	4.50	4.50	4.50	4.50	5.88	5.50
September	4.50	4.50	4.50	4.50	4.50	4.50	6.00	5.50
October	4.50	4.50	4.50	4.50	4.50	4.50	6.00	5.50
November	4.50	4.50	4.50	4.50	4.50	4.50	6.00	5.68
December	4.50	4.50	4.50	4.50	4.50	4.92	6.00	6.00
Average	4.82	4.50	4.50	4.50	4.50	4.54	5.63	5.63
	1968	1969	1970	1971	1972	1973	1974	1975
January	6.00	6.95	8.50	6.29	5.18	6.00	9.73	10.05
February	6.00	7.00	8.50	5.88	4.75	6.02	9.21	8.96
March	6.00	7.24	8.39	5.44	4.75	6.30	8.85	7.93
April	6.20	7.50	8.00	5.28	4.97	6.61	10.02	7.50
May	6.50	7.50	8.00	5.46	5.00	7.01	11.25	7.40
June	6.50	8.23	8.00	5.50	5.04	7.49	11.54	7.07
July	6.50	8.50	8.00	5.91	5.25	8.30	11.97	7.15
August	6.50	8.50	8.00	6.00	5.27	9.23	12.00	7.66
September	6.45	8.50	7.83	6.00	5.50	9.86	12.00	7.88
October	6.25	8.50	7.50	5.90	5.73	9.94	11.68	7.96
November	6.25	8.50	7.28	5.53	5.75	9.75	10.83	7.53
December	6.60	8.50	6.92	5.49	5.79	9.75	10.50	7.26
Average	6.31	7.95	7.91	5.72	5.25	8.02	10.80	7.86
	1976	1977	1978	1979	1980	1981	1982	1983
January	7.00	6.25	7.93	11.75	15.25	20.16	15.75	11.16
February	6.75	6.25	8.00	11.75	15.63	19.43	16.56	10.98
March	6.75	6.25	8.00	11.75	18.31	18.05	16.50	10.50
April	6.75	6.25	8.00	11.75	19.77	17.15	16.50	10.50
May	6.75	6.41	8.27	11.75	16.57	19.61	16.50	10.50
June	7.20	6.75	8.63	11.65	12.63	20.03	16.50	10.50
July	7.25	6.75	9.00	11.54	11.48	20.39	16.26	10.50
August	7.01	6.83	9.01	11.91	11.12	20.50	14.39	10.89
September	7.00	7.13	9.41	12.90	12.23	20.08	13.50	11.00
October	6.77	7.52	9.94	14.39	13.79	18.45	12.52	11.00
November	6.50	7.75	10.94	15.55	16.06	16.84	11.85	11.00
December	6.35	7.75	11.55	15.30	20.35	15.75	11.50	11.00
Average	6.84	6.82	9.06	12.67	15.27	18.87	14.86	10.79

Table continues...

Table C3. Prime Rate, 1960-97

	1984	1985	1986	1987	1988	1989	1990	1991
January	11.00	10.61	9.50	7.50	8.75	10.50	10.11	9.52
February	11.00	10.50	9.50	7.50	8.51	10.93	10.00	9.05
March	11.21	10.50	9.10	7.50	8.50	11.50	10.00	9.00
April	11.93	10.50	8.83	7.75	8.50	11.50	10.00	9.00
May	12.39	10.31	8.50	8.14	8.84	11.50	10.00	8.50
June	12.60	9.78	8.50	8.25	9.00	11.07	10.00	8.50
July	13.00	9.50	8.16	8.25	9.29	10.98	10.00	8.50
August	13.00	9.50	7.90	8.25	9.84	10.50	10.00	8.50
September	12.97	9.50	7.50	8.70	10.00	10.50	10.00	8.20
October	12.58	9.50	7.50	9.07	10.00	10.50	10.00	8.00
November	11.77	9.50	7.50	8.78	10.05	10.50	10.00	7.58
December	11.06	9.50	7.50	8.75	10.50	10.50	10.00	7.21
Average	12.04	9.93	8.33	8.20	9.32	10.87	10.01	8.46
	1992	1993	1994	1995	1996	1997		
January	6.50	6.00	6.00	8.50	8.50	8.25		
February	6.50	6.00	6.00	9.00	8.25	8.25		
March	6.50	6.00	6.06	9.00	8.25	8.30		
April	6.50	6.00	6.45	9.00	8.25	8.50		
May	6.50	6.00	6.99	9.00	8.25	8.50		
June	6.50	6.00	7.25	9.00	8.25	8.50		
July	6.02	6.00	7.25	8.80	8.25	8.50		
August	6.00	6.00	7.51	8.75	8.25	8.50		
September	6.00	6.00	7.75	8.75	8.25	8.50		
October	6.00	6.00	7.75	8.75	8.25	8.50		
November	6.00	6.00	8.15	8.75	8.25	8.50		
December	6.00	6.00	8.50	8.65	8.25	8.50		
Average	6.25	6.00	7.14	8.83	8.27	8.50		

Source: U.S. Federal Reserve Internet Database.

Table C4. The Eurocurrency Markets I: Alternative Estimates of its Dimensions, 1964-85^a
(billion dollars)

Year	IMF Narrowly-Defined		IMF Broadly-Defined		Crockett		Morgan Guaranty	
	Gross ^b	Net ^c	Gross ^d	Net ^d	Gross	Net ^e	Gross	Net ^e
1964	16	12	25	17	19	14	-	-
1965	19	13	28	19	20	17	-	-
1966	26	16	35	23	25	21	-	-
1967	33	21	44	30	32	25	-	-
1968	47	30	58	38	46	34	-	-
1969	81	44	98	50	65	50	-	-
1970	105	57	127	62	86	65	-	-
1971	136	71	165	78	150	85	-	-
1972	183	92	222	100	210	110	-	-
1973	265	132	331	148	292	175	315	160
1974	310	177	403	208	459	230	395	220
1975	354	205	464	240	551	265	485	255
1976	417	247	560	294	672	340	595	320
1977	512	300	-	-	844	435	740	390
1978	-	-	-	-	1084	530	950	495
1979	-	-	-	-	1353	665	1235	590
1980	-	-	-	-	1641	810	1525	730
1981	-	-	-	-	1933	945	1954	1018
1982	-	-	-	-	2118	1020	2168	1152
1983	-	-	-	-	2193	1085	2278	1237
1984	-	-	-	-	2614	1265	2386	1277
1985	-	-	-	-	3269	1485	2846	1480

a. Estimates of the size of the Eurocurrency markets previous to 1964 apparently do not exist. Apparently its size was near to zero in 1960, while an estimation of the IMF points to a (gross) size of \$4-\$5 billion in the early 1960s.

b. Comprises BIS estimates of external positions of reporting European banks in dollars and other foreign currencies, plus the estimated foreign currency positions of those banks with residents. Also includes allowance for trustee funds held by Swiss banks to the extent that they are not reported as liabilities by the Swiss banks themselves.

c. Gross size estimates adjusted to exclude redepositing between banks in the reporting area. Essentially based on published BIS figures with minor allowances for breaks in the series in earlier years due to changes in coverage.

d. Concepts are comparable to those shown for the narrowly-defined market. Comprised of BIS estimates for the banks in the eight European reporting countries, plus the positions of banks in Canada and Japan, and of branches of U.S. banks in selected offshore centres such as the Bahamas, Caymans, Panama, Singapore and Hong Kong.

e. Gross size estimates adjusted to exclude interbank deposits.

Sources: IMF (1978, 4, 11); Levich, et. al. (1988, 221); Crockett (1994, 89).

Table C5. The Eurocurrency Markets II: Growth^a, 1965-85
(percentages)

Year	IMF Narrowly-Defined		IMF Broadly-Defined		Crocket		Morgan Guaranty	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
1965	18.8	8.3	12.0	11.8	5.3	21.4	-	-
1966	36.8	23.1	25.0	21.1	25.0	23.5	-	-
1967	26.9	31.3	25.7	30.4	28.0	19.0	-	-
1968	42.4	42.9	31.8	26.7	43.8	36.0	-	-
1969	72.3	46.7	69.0	31.6	41.3	47.1	-	-
1970	29.6	29.5	29.6	24.0	32.3	30.0	-	-
1971	29.5	24.6	29.9	25.8	74.4	30.8	-	-
1972	34.6	29.6	34.5	28.2	40.0	29.4	-	-
1973	44.8	43.5	49.1	48.0	39.0	59.1	-	-
1974	17.0	34.1	21.8	40.5	57.2	31.4	25.4	37.5
1975	14.2	15.8	15.1	15.4	20.0	15.2	22.8	15.9
1976	17.8	20.5	20.7	22.5	22.0	28.3	22.7	25.5
1977	22.8	21.5	-	-	25.6	27.9	24.4	21.9
1978	-	-	-	-	28.4	21.8	28.4	26.9
1979	-	-	-	-	24.8	25.5	30.0	19.2
1980	-	-	-	-	21.3	21.8	23.5	23.7
1981	-	-	-	-	17.8	16.7	28.1	39.5
1982	-	-	-	-	9.6	7.9	11.0	13.2
1983	-	-	-	-	3.5	6.4	5.1	7.4
1984	-	-	-	-	19.2	16.6	4.7	3.2
1985	-	-	-	-	25.1	17.4	19.3	15.9

a. Percentage growth over the previous year.

Source: Calculated with data from Table C4.

Table C6. Funds Raised in the International Capital Markets, 1972-95^a
(Breakdown by type of borrower, million dollars)

	1972	1973	1974	1975	1976	1977
Industrialised ^b	12690.7	18939.1	25392.8	22445.7	37638.0	40050.0
Developing ^c	5266.2	9875.1	11145.4	15965.5	20458.2	25195.3
Others ^d	1692.9	730.5	623	2138.8	3764.3	3704.6
Grand Total	19649.8	29544.7	37161.2	40550.0	61860.5	68949.9
	1978	1979	1980	1981	1982	1983
Industrialised	61930.1	57730.7	71425.9	136364.5	121506.4	110826.9
Developing	43784.5	56516.1	40676.3	57419.1	49123.2	38932.4
Others	3614.1	3840.7	4539.3	5677.4	8462.8	7655.7
Grand Total	109328.7	118087.5	116641.6	199461.0	179092.4	157415.0
	1984	1985	1986	1987	1988	1989
Industrialised	173466.5	211554.2	272558.5	259813.0	329131.6	344454.5
Developing	38459.0	35275.3	26980.5	31947.9	29744.0	27927.5
Others	9812.6	12937.4	10050.3	11928.4	10517.4	12931.6
Grand Total	221738.1	259766.8	309589.3	303689.2	369393.0	385313.6
	1990	1991	1992	1993	1994	1995
Industrialised	311805.2	371624.7	396467.3	524262.3	577849.6	722757.0
Developing	34207.1	45876.2	40913.7	80862.4	79479.3	91824.3
Others	15418.5	14999.6	20874.1	20711.2	12373.3	17661.7
Grand Total	361430.9	432500.4	458255.1	625835.9	669702.1	832243.0

a. Information on syndicated loans is only available from 1972 onwards (Table C5). That is why there is no total information that aggregates bond and syndicated borrowing previous to that year.

b. OECD members in 1995, except Mexico and Turkey.

c. All countries not considered as industrialised.

d. Borrowing by international development institutions such as the World Bank and regional development banks.

Source: Constructed with data from OECD (1996, 17-30).

Table C7. Funds Raised on the International Markets, 1963-95
(breakdown by type of instrument, million dollars)

	1963	1964	1965	1966	1967
Euro-bonds	257.5	685.9	900.2	1425.0	2179.9
Foreign Bonds	1803.6	2211.1	2187.3	2195.4	2984.1
International Bonds Total	2061.1	2896.9	3087.5	3620.4	5164.0
	1968	1969	1970	1971	1972
Euro-bonds	3942.3	3280.3	3528.5	4240.4	6489.9
Foreign Bonds	3550.1	3037.3	2224.2	3252.0	4357.3
International Bonds Total	7492.4	6317.3	5752.8	7492.4	10847.2
Syndicated Euro-loans	-	-	-	-	8802.6
Grand Total	7492.4	6317.3	5752.8	7492.4	19649.8
	1973	1974	1975	1976	1977
Euro-bonds	4208.8	3396.1	8725.7	14705.2	18689.3
Foreign Bonds	4509.6	5243.2	11217.1	18412.9	16062.7
Total International Bonds	8718.4	8639.3	19942.8	33118.1	34752.0
Syndicated Euro-loans	20826.3	28521.9	20607.2	28742.4	34197.9
Grand Total	29544.7	37161.2	40550.0	61860.5	68949.9
	1978	1979	1980	1981	1982
Euro-bonds	14960.7	18960.7	20394.2	31294.1	50328.6
Foreign Bonds	20713.4	20239.1	17924.2	20513.9	25198.7
Total International Bonds	35674.1	39019.8	38318.4	51808.0	75527.3
Syndicated Euro-loans	73654.6	79067.7	78143.2	91226.8	90750.5
Syndicated foreign loans	-	-	-	3381.0	7428.4
Other debt facilities	-	-	-	53045.2	5386.2
Total loans	73654.6	79067.7	78143.2	147653.0	103565.1
Grand Total	109328.7	118087.5	116641.6	199461.0	179092.4

Table continues...

Table C7. Funds Raised on the International Markets, 1963-95
(breakdown by type of instrument, million dollars)

	1983	1984	1985	1986	1987
Euro-bonds	50098.2	81420.3	136543.3	187746.8	140534.6
Foreign Bonds	27049.8	28097.4	31229.1	39359.3	40251.7
Total International Bonds	77148.0	109517.7	167772.4	227106.0	180786.3
Syndicated Euro-loans	59796.7	48183.2	36135.6	43379.5	80315.1
Syndicated foreign loans	6964.7	8760.8	6938.3	9061.1	11342.8
Other debt facilities	13505.6	55276.4	48920.5	30042.6	31245.1
Total loans	80267.0	112220.4	91994.5	82483.2	122902.9
Grand Total	157415.0	221738.1	259766.8	309589.3	303689.2
	1988	1989	1990	1991	1992
Euro-bonds	178869.1	212853.2	180133.5	258157.3	276080.0
Foreign Bonds	48274.1	42931.7	49781.6	50572.8	57613.3
Total International Bonds	227143.2	255784.9	229915.1	308730.0	333693.3
Syndicated Euro-loans	116249.3	114536.1	122362.1	114460.5	116176.4
Syndicated foreign loans	9357.7	6617.1	2162.7	1565.0	1692.5
Other debt facilities	16442.8	8375.5	6991.0	7745.0	6692.9
Total loans	142249.8	129528.7	131515.8	123770.4	124561.8
Grand Total	369393.0	385313.6	361430.9	432500.4	458255.1
	1993	1994	1995		
Euro-bonds	394588.5	368410.5	371244.7		
Foreign Bonds	86409.2	60217.6	89413.3		
Total International Bonds	480997.8	428628.1	460658.0		
Syndicated Euro-loans	136069.1	235295.6	367841.2		
Syndicated foreign loans	607.1	926.2	595.6		
Other debt facilities	8161.9	4582.1	3148.3		
Total loans	144838.1	241074.0	371585.0		
Grand Total	625835.9	669702.1	832243.0		

Source: Constructed with data from OECD (1996, 13-16).

Table C8. Syndicated Loans, 1972-95^a
(million dollars)

	1972	1973	1974	1975	1976	1977
OECD ^b	5129.3	13542.6	19786.2	8214.0	12721.4	16334.1
Non-OECD	3673.3	7283.7	8721.7	12328.2	15944.0	17716.8
Total	8802.6	20826.3	28507.9	20542.2	28665.4	34050.9
	1978	1979	1980	1981	1982	1983
OECD ^b	41952.1	39370.9	44934.8	55661.5	61365.3	36564.6
Non-OECD	31505.8	39401.8	32700.3	38280.0	35756.6	29116.0
Total	73457.9	78772.7	77635.1	93941.5	97121.9	65680.6
	1984	1985	1986	1987	1988	1989
OECD ^b	32513.7	19808.5	36314.4	74450.9	103827.7	100051.8
Non-OECD	22731.1	21418.7	15263.2	15562.5	19280.8	18487.4
Total	55244.8	41227.2	51577.6	90013.4	123108.5	118539.2
	1990	1991	1992	1993	1994	1995
OECD ^b	102605.6	88429.4	99297.2	115901.9	211452.7	326936.4
Non-OECD	21475.8	27045.8	17561.2	20500.7	24469.8	41500.4
Total	124081.4	115475.2	116858.4	136402.6	235922.5	368436.8

a. All syndicated loans to public and private borrowers.

b. Includes all the OECD members in 1995.

Source: Constructed with data from OECD (1996, 237, 240, 242, 244, 247, and 250).

Table C9. Syndicated Loans and Participants, 1972-80.

Year	Loan Volume	Number of Loans	Number of Participants ^a	Average Participants per Loan ^b	Loans with Unnamed Participants (%)
1972	8802.6	258	415	1.6	1
1973	20826.3	402	725	1.8	1
1974	28507.9	474	1027	2.2	1
1975	20542.2	418	1482	3.5	5
1976	28665.4	430	1827	4.2	8
1977	34050.9	489	2360	4.8	10
1978	73457.9	786	3781	4.8	15
1979	78772.7	813	4329	5.3	16
1980	77635.1	797	4913	6.2	22

a. A small percentage of participants are listed as "syndicates" and thus actually represent more than one institution.

b. Because of what is mentioned in note a, the average of participants per loan may be higher.

Sources: Table C7; Page and Rogers (1982, 59).

Table C10. Syndicated Euroloans by Currency of Issue, 1972-95^a
(in million dollars equivalent and percentages)

	1972	1973	1974	1975	1976	1977
U.S. dollar	8081.5	20030.8	27931.6	19905.4	26834.4	32710.0
Deustchemark	83.5	135.4	495.3	476.9	979.8	914.3
Pound sterling	600.4	505.5	12.7	137.0	532.5	240.5
Others ^b	37.2	154.6	82.3	87.9	395.7	333.1
Total	8802.6	20826.3	28521.9	20607.2	28742.4	34197.9
of which U.S. dollar	91.81	96.18	97.93	96.59	93.36	95.65
	1978	1979	1980	1981	1982	1983
U.S. dollar	70528.1	74657.9	72391.0	83755.1	82989.3	51034.2
Deustchemark	1220.6	1774.7	1437.3	1378.7	1101.2	871.5
Pound sterling	783.5	958.9	1110.4	975.9	2927.8	2840.3
French franc	67.8	333.1	745.8	300.5	198.0	11.2
Hong Kong dollar	125.0	148.6	1037.9	1614.3	1025.1	728.2
Others ^b	929.6	1194.5	1420.8	3202.3	2509.1	4311.3
Total	73654.6	79067.7	78143.2	91226.8	90750.5	59796.7
of which U.S. dollar	95.76	94.42	92.64	91.81	91.45	85.35
	1984	1985	1986	1987	1988	1989
U.S. dollar	40736.1	30746.9	36161.3	56648.1	82992.4	88571.1
Deustchemark	1091.6	701.0	1356.3	1241.4	1188.2	3318.5
Pound sterling	2478.8	581.5	3101.3	15463.9	20523.8	11808.0
ECU	1646.0	2150.7	687.0	2379.6	3744.3	4980.3
Others ^b	2230.7	1955.5	2073.6	4582.1	7800.6	5858.2
Total	48183.2	36135.6	43379.5	80315.1	116249.3	114536.1
of which U.S. dollar	84.54	85.09	83.36	70.53	71.39	77.33
	1990	1991	1992	1993	1994	1995
U.S. dollar	74888.9	99342.9	89390.0	113516.9	196292.3	294051.1
Deustchemark	7503.9	2130.0	2095.7	4027.1	2422.3	16258.4
Pound sterling	21531.3	4443.9	2106.9	2451.9	16640.5	31311.5
ECU	10399.7	4123.8	17475.2	7716.5	8423.1	13830.9
French franc	1271.7	1159.8	789.3	2490.8	3665.6	6049.8
Others ^b	6766.6	3260.1	4319.3	5865.9	7851.8	6339.5
Total	122362.1	114460.5	116176.4	136069.1	235295.6	367841.2
of which U.S. dollar	61.20	86.79	76.94	83.43	83.42	79.94

a. Only the most important currencies used during the period are included.

b. In the 1972-95 period, Euroloans on 29 other currencies than the ones here mentioned were granted.

Source: Constructed with data from OECD (1996, 259-261).

Table C11. Financial Institutions Participating in the Euroloan Market, 1972-80^a

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Austria	0	0	4	4	4	11	5	7	14
Belgium	4	3	3	5	4	3	3	4	4
Luxembourg	3	3	3	4	5	7	11	7	7
West Germany	5	7	10	13	13	17	17	22	21
France	9	15	14	16	15	17	17	22	19
Italy	3	5	6	5	8	9	18	12	15
Netherlands	0	1	3	4	5	5	5	6	5
Spain/Portugal	2	5	9	13	14	13	11	19	22
Switzerland	2	2	4	4	9	9	8	9	11
United Kingdom	18	24	20	18	19	18	18	19	18
Other W. Europe	1	9	9	18	12	14	14	16	17
E. Europe	1	2	3	3	2	1	1	2	5
Total	48	76	88	107	110	124	128	145	158
Canada	3	4	7	9	7	9	9	10	9
United States	31	40	41	46	46	43	49	50	54
Total	34	44	48	55	53	52	58	60	63
Latin America	6	3	5	6	5	8	8	12	23
Caribbean	3	2	5	3	4	3	2	4	3
Middle East	1	2	3	6	11	17	25	23	25
Africa	1	0	1	1	1	2	1	2	3
Japan	17	21	17	7	13	18	24	24	24
Other Asia	5	2	4	5	4	9	11	16	19
Oceania	2	0	1	2	1	1	3	5	8
Consortia,	12	22	30	36	48	49	60	51	51
European	1	4	4	5	6	7	7	8	9
Arab	0	0	1	2	3	5	9	6	6
Asian	0	1	1	1	1	0	0	1	0
Other	11	17	24	28	38	37	44	36	36
Unidentified	4	6	5	7	6	5	7	5	9
GRAND TOTAL	133	178	207	235	256	288	327	347	386

Source: Page and Rogers (1982, 62).

Table C12. Financial Institutions Entering the Euroloan Market for the First Time, 1973-80^a

	1973	1974	1975	1976	1977	1978	1979	1980
Austria	0	4	1	1	5	1	0	5
Belgium	0	0	1	1	0	0	1	0
Luxembourg	0	0	2	3	3	3	0	2
West Germany	2	5	4	1	4	1	4	2
France	7	2	4	2	3	0	6	1
Italy	2	1	1	2	5	5	2	1
Netherlands	1	2	1	2	2	1	0	0
Spain/Portugal	3	4	5	2	1	1	6	7
Switzerland	1	2	0	5	3	1	3	2
United Kingdom	9	2	1	1	0	1	0	1
Other W. Europe	8	3	9	3	1	0	0	1
E. Europe	1	1	1	0	0	0	0	3
Total	34	26	30	23	27	14	22	25
Canada	1	3	3	1	1	0	1	0
United States	13	9	10	7	5	7	6	10
Total	14	12	13	8	6	7	7	10
Latin America	2	2	0	0	3	3	3	10
Caribbean	0	2	0	0	2	0	3	1
Middle East	2	3	2	6	9	11	7	3
Africa	0	0	0	1	1	0	2	1
Japan	4	1	0	1	2	4	1	1
Other Asia	2	1	2	1	6	4	5	10
Oceania	0	0	1	0	0	1	4	2
Consortia,	13	14	13	14	7	15	6	5
European	3	0	1	2	1	0	1	0
Arab	0	1	2	1	1	4	0	1
Asian	1	1	1	0	0	0	0	0
Other	9	12	9	11	5	11	5	4
Unidentified	4	4	3	2	3	4	4	5
GRAND TOTAL	75	65	64	56	66	63	64	73

Source: Page and Rogers (1982, 64).

Table C13. Euroloan Participations by Nationality, 1972-80^a

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Austria	0	0	5	16	7	42	15	31	41
Belgium	12	6	17	28	12	35	49	106	110
Luxembourg	8	9	15	11	27	31	51	70	45
West Germany	11	15	59	115	108	219	254	300	254
France	27	67	125	100	92	103	162	223	395
Italy	9	25	22	7	11	15	39	55	98
Netherlands	0	2	8	27	28	45	81	78	67
Spain/Portugal	5	7	29	32	36	41	38	77	100
Switzerland	2	4	9	20	32	47	63	74	76
United Kingdom	65	106	113	127	156	207	280	357	416
Other W. Europe	2	15	16	35	48	47	46	71	81
E. Europe	3	4	7	11	6	1	2	6	17
Total	144	260	425	529	563	833	1080	1488	1700
Canada	10	24	44	117	121	153	261	284	301
United States	136	239	346	503	653	658	749	613	657
Total	146	263	390	620	774	811	1010	897	958
Latin America	10	3	8	29	19	22	29	60	95
Caribbean	9	10	12	3	5	3	2	4	9
Middle East	1	5	4	19	19	48	106	80	113
Africa	1	0	1	1	3	2	2	2	5
Japan	51	99	37	14	32	97	355	466	258
Other Asia	6	4	7	14	11	24	36	42	80
Oceania	2	0	2	3	1	1	5	5	25
Consortia	36	70	128	161	233	284	373	386	467
European	4	9	25	14	19	37	45	55	72
Arab	0	0	1	4	8	12	50	54	92
Asian	0	1	1	1	1	0	0	2	0
Other	32	60	101	142	205	235	278	275	303
Unidentified	6	6	9	15	9	6	9	9	13
GRAND TOTAL	412	720	1023	1408	1669	2131	3007	3399	3723

a. First through tenth listed participants only).

Source: Page and Rogers (1982, 62).

Table C14. Credit Commitments of Reporting Banks to the BIS, vis-a-vis countries outside their own area, mid-1978 to mid-1982.
(billion dollars)

	Nominal				
	mid-1978	mid-1981	end-1981	mid-1982	Δ (%) 78/82 ^a
Industrialised	58.1	91.4	101.6	108.8	50.7 (87.3)
Eastern Europe	42.5	57.6	60.7	54.0	11.5 (27.1)
LDCs ^b	155.3	289.0	326.7	343.5	188.2 (121.2)
Latin America	83.4	172.9	196.6	209.5	126.1 (151.2)
Middle East	26.7	31.6	36.3	39.3	12.6 (47.2)
Other Africa	18.4	29.6	32.7	32.5	14.1 (76.6)
Other Asia	26.8	54.9	61.1	62.2	35.4 (132.2)
	Real ^c				
	mid-1978	mid-1981	end-1981	mid-1982	Δ (%) 78/82 ^a
Industrialised	58.1	65.8	70.5	73.1	15.0 (25.9)
Eastern Europe	42.5	41.5	42.1	36.3	-6.2 (-14.6)
LDCs ^b	155.3	289	326.7	343.5	188.2 (48.7)
Latin America	83.4	124.4	136.4	140.8	57.4 (68.8)
Middle East	26.7	22.7	25.2	26.4	-0.3 (-1.1)
Other Africa	18.4	21.3	22.7	21.8	3.4 (18.7)
Other Asia	26.8	39.5	42.4	41.8	15.0 (56.0)

a. Absolute (in billion dollars) and relative (in per cent) change between mid-1978 and mid-1982.

b. Including OPEC countries.

c. Mid-1978 dollars.

Source: BIS (1982a, 3-4).

Table C15. The Ten Largest U.S. Banks: Foreign Earnings as a Percentage of Total Earnings, 1970-82.

	1970	1971	1972	1973	1974	1975	1976
Citicorp	58.0	43.0	54.0	60.0	62.0	70.6	72.4
Chase Manhattan	22.0	29.0	34.0	39.0	47.0	64.5	78.0
Bank of America	15.0	19.0	21.0	24.0	29.0	54.7	46.7
Manufacturers Hanover	13.0	24.0	29.0	36.0	47.2	49.1	59.3
Morgan Guaranty Trust	25.0	28.9	35.0	45.9	45.0	60.2	46.1
Chemical Bank	10.0	17.0	14.2	18.5	34.0	41.6	41.1
Bankers Trust	14.5	19.1	31.0	40.0	52.0	58.6	60.4
First Chicago	2.0	7.0	11.0	12.0	3.0	34.0	17.0
Continental Illinois	0.2	3.0	17.0	20.0	4.0	13.4	23.0
Security Pacific	0.4	2.0	5.0	12.0	16.0	12.6	6.9
Total	17.5	23.8	29.3	35.6	39.6	52.5	50.8
	1977	1978	1979	1980	1981	1982	
Citicorp	82.2	71.8	64.7	62.1	51.7	60.0	
Chase Manhattan	64.9	53.3	46.9	49.1	55.6	64.7	
Bank of America	43.0	34.4	37.5	44.5	63.3	65.1	
Manufacturers Hanover	60.2	51.2	48.8	49.1	60.2	49.6	
Morgan Guaranty Trust	47.9	50.8	52.2	59.3	68.1	63.9	
Chemical Bank	38.8	42.0	31.7	38.4	34.2	38.7	
Bankers Trust	82.8	67.9	51.5	57.5	62.4	49.5	
First Chicago	20.7	16.0	3.5	n.a.	19.7	30.3	
Continental Illinois	16.7	17.8	16.5	28.1	28.4	62.8	
Security Pacific	11.2	16.6	10.9	12.9	25.4	31.6	
Total	50.8	45.5	42.3	46.3	51.0	54.7	

Source: Devlin (1989, 38).

Table C16. The Top 50 Banks in the World, 1973 and 1982
(measured by assets)

1973		1982
1	BankAmerica Corp. (Bank of America)	BankAmerica Corp. (Bank of America)
2	First National City Corp. (Citicorp)	Citicorp
3	Chase Manhattan Corporation	Banque Nationale de Paris
4	Barclays Bank	Crédit Agricole
5	Banque Nationale de Paris	Crédit Lyonnais
6	Dai-Ichi Kangyo Bank	Barclays Group
7	National Westminster Bank	Société Générale
8	Banca Nazionale del Lavoro	Dai-Ichi Kangyo Bank
9	Crédit Lyonnais	Deutsche Bank
10	Deutsche Bank	National Westminster Bank
11	Fuji Bank	Sumitomo Bank
12	Sumitomo Bank	Midland Bank
13	Mitsubishi Bank	Fuji Bank
14	J.P. Morgan & Co. (Morgan Guaranty)	Mitsubishi Bank
15	Manufacturers Hanover Corporation	Chase Manhattan Corporation
16	Sanwa Bank	Royal Bank of Canada
17	Banco di Roma	Sanwa Bank
18	Chemical New York Corp.	Banco do Brasil
19	Société Générale	Dresdner Bank
20	Western Bancorp (United California Bank)	Norinchukin Bank
21	Dresdner Bank	Manufacturers Hanover Corporation
22	Banca Commerciale Italiana	Bank of Tokyo
23	Westdeutsche Landesbank Girozentrale	WestLB
24	Royal Bank of Canada	Mitsui Bank
25	Midland Bank	Industrial Bank of Japan
26	Credito Italiano	Lloyds Bank
27	Lloyds Bank	Tokai Bank
28	Bankers Trust New York Corporation	Union Bank of Switzerland
29	Industrial Bank of Japan	Hongkong & Shanghai Banking Corp.
30	Canadian Imperial Bank of Commerce	J.P. Morgan & Co. (Morgan Guaranty)
31	Cassa di Risparmio delle Provincie Lombarde	Canadian Imperial Bank of Commerce
32	Continental Illinois Corporation	PARIBAS
33	Tokai Bank	ABN
34	Mitsui Bank	Swiss Bank Corp.
35	Security Pacific	Bank of Montreal
36	First Chicago Corp.	Long-Term Credit Bank of Japan
37	Bank of Montreal	Taiyo Kobe Bank
38	Commerzbank	Rabobank Nederland
39	Long-Term Credit Bank of Japan	Commerzbank
40	Bank of Tokyo	Continental Illinois Corporation
41	Marine Midland Bank	Banca Nazionale del Lavoro
42	Daiwa Bank	Amsterdam-Rotterdam Bank
43	Banco do Brasil	Bayerische Vereinsbank
44	Schweizerische Bankgesellschaft	Chemical New York Corporation
45	Swiss Bank Corporation	Crédit Suisse
46	Bayerische Vereinsbank	Mitsubishi Trust & Banking Corporation
47	Wells Fargo & Co.	Bayerische Landesbank Girozentrale
48	Hessische Landesbank Girozentrale	Bayerische Hypothek- und Wechsel Bank
49	Cooperative Centrale Raiffeisen-Boerenleenbank	Banca Commerciale Italiana
50	Swiss Credit Bank	Bank of Nova Scotia

Source: *The Banker* (June 1973, 649-653; June 1982, 185-187).

Table C17. Weighted Average Spread on Publicised Euroloans to LDCs, 1975-80.
(percentage distribution)

Spread's Range	1975	1976	1977	1978	1979	1980
Up to 0.500	... ^a	...	0.2	1.3	16.2	16.9
0.501 – 0.750	...	...	0.2	15.4	39.2	38.9
0.751 - 1.000	...	...	18.9	30.5	25.4	21.4
1.001 - 1.250	1.9	7.8	13.1	21.2	12.5	9.9
1.251 - 1.500	35.8	25.0	15.5	16.6	3.7	7.3
1.501 - 1.750	36.1	31.9	32.3	6.5	1.7	1.6
1.751 - 2.000	23.0	27.0	14.1	5.2	0.7	1.5
2.001 - 2.250	2.6	7.0	3.0	1.6	0.1	0.1
2.251 or more	0.2	1.2	2.6	0.3	0.1	2.1
Unknown	0.3	0.1	0.2	1.3	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

a. Zero or not large enough to quantify.
Source: Devlin (1989, 51).

Table C18. Euromoney Index of Terms and Conditions in the Syndicated Loan Market^a
(1979=100)

	1978	1979	1980	1981	1982
January	159.7	115.7	79.6	116.8	93.9
February	134.2	122.7	97.3	96.9	92.6
March	148.6	112.9	91.7	110.9	94.3
April	157.6	93.4	112.2	111.9	151.2
May	137.0	99.2	91.1	111.5	121.8
June	118.4	92.1	109.2	133.3	179.4
July	139.1	107.3	107.0	104.6	145.0
August	127.3	110.7	112.2	121.6	111.9
September	116.0	94.0	125.4	100.5	145.0
October	106.2	82.0	120.7	137.0	168.7
November	131.1	89.2	93.5	99.7	-
December	112.2	80.9	121.3	109.5	-
Three-Month Moving Average					
January	-	116.9	85.9	111.7	98.7
February	147.5	117.1	89.5	108.2	93.6
March	146.8	109.7	100.4	106.6	112.7
April	147.7	101.8	98.3	111.4	122.4
May	137.7	94.9	104.2	118.9	150.8
June	131.5	99.5	102.4	116.5	148.7
July	128.3	103.4	109.5	119.8	145.4
August	127.5	104.0	114.9	108.9	134.0
September	116.5	95.6	119.4	119.7	141.9
October	117.8	88.4	113.2	112.4	-
November	116.5	84.0	111.8	115.4	-
December	119.7	83.2	110.5	101.0	-

a. See Euromoney (1980c) for the index's definition and formula.
Source: Constructed with data from *Euromoney*, several issues.

Table C19. Crude-Oil Posted or Tax Reference Prices and Official Selling Prices, 1960-82
(dollars per barrel)

Period	Posted or Tax-Reference Prices ^a	Official Selling Prices
1960 August	1.80	-
1971 February	2.18	-
June	2.29	-
1972 January	2.48	-
1973 January	2.60	-
June	2.90	-
October 1	3.01	-
October 16	5.12	-
November 1	5.18	-
December 1	5.04	-
1974 January	11.65	-
November	11.25	10.46
1975 October	12.38	11.51
1977 January	13.00	12.09
July	13.67	12.70
1979 January	14.34	13.34
April	15.46	14.55
June	19.36	18.00
November	25.81	24.00
1980 January	27.96	26.00
April	30.11	28.00
August	32.26	30.00
November	34.41	32.00
1981 January	34.41	32.00
1982 January	34.00	34.00

a. Arabian Light 34^o, the bench-mark price used by OPEC members.
Source: Alnasrawi (1985, 30-31).

APPENDIX D

SELECTED SOVEREIGN BORROWERS IN THE INTERNATIONAL CAPITAL MARKETS

Table D1. Selected Credits to Sovereign Borrowers: Argentina, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Agua y Energía Eléctrica	02.78	\$45.0	1.750	5
Agua y Energía Eléctrica	03.78	\$30.0	1.500	5
Yacimientos Petrolíferos Fiscales	06.78	\$18.0	1.375	5
Yacimientos Petrolíferos Fiscales	07.78	\$25.0	1.536 ^b	7
Agua y Energía Eléctrica	10.78	\$100.0	1.375	8.5
Yacimientos Petrolíferos Fiscales	10.78	\$15.0	1.500	5
Agua y Energía Eléctrica	01.79	\$120.0	0.839 ^b	10.5
Yacimientos Petrolíferos Fiscales	01.79	\$250.0	0.813 ^b	12
Banco de la Nación Argentina	02.79	\$300.0	0.750	10
Yacimientos Petrolíferos Fiscales	11.79	\$250.0	0.625	10
Republic of Argentina	02.80	\$250.0	0.500	6
Yacimientos Petrolíferos Fiscales	05.80	\$175.0	0.688 ^b	8
Agua y Energía Eléctrica	06.80	£150.0	0.688 ^b	8
Comisión Nacional de Energía Atómica	06.80	DM56.0	0.750	6.5
Banco de la Nación Argentina	08.80	\$350.0	0.500	5
Yacimientos Petrolíferos Fiscales	12.80	\$100.0	0.500	5
Yacimientos Petrolíferos Fiscales	12.80	\$200.0	0.625	8
Republic of Argentina	01.81	\$250.0	0.563 ^b	8
Agua y Energía Eléctrica	07.81	\$250.0	0.688 ^b	8
Yacimientos Petrolíferos Fiscales	08.81	\$50.0	0.500	3.5
Banco de la Nación Argentina	09.81	\$100.0	0.250	5
Republic of Argentina	10.81	\$288.0 ^c	1.125 ^b	7
Yacimientos Petrolíferos Fiscales	03.82	\$50.0	0.875	2
Yacimientos Petrolíferos Fiscales	03.82	\$30.5	0.750	1
Yacimientos Petrolíferos Fiscales	03.82	\$44.5	0.875	2
Yacimientos Petrolíferos Fiscales	03.82	\$66.0	0.750	4

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

c. Value of the LIBOR tranche of a bigger loan.

Source: Constructed with data from *Euromoney*, several issues.

Table D2. Selected Credits to Sovereign Borrowers: Brazil, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Centrais Elétricas Brasileiras	01.78	\$54.0	2.125	7
Light-Servicos de Electricidade	01.78	\$150.0	2.125	8
Itaipu Binacional	05.78	\$25.0	2.000	7
Centrais Elétricas Brasileiras	06.78	\$250.0	1.875	10
Itaipu Binacional	08.78	\$100.0	1.875	10
Itaipu Binacional	08.78	\$75.0	2.000	12
Light-Servicos de Electricidade	08.78	\$55.0	1.750	10.5
Light-Servicos de Electricidade	10.78	\$65.0	1.125	10
Light-Servicos de Electricidade	10.78	\$65.0	1.250	12
Light-Servicos de Electricidade	10.78	\$65.0	1.500	15
Petroleos Brasileiros ^d	03.79	\$50.0	0.750	5
Centrais Elétricas Brasileiras	04.79	\$360.0	0.969 ^b	12
Centrais Elétricas Brasileiras	04.79	\$40.0	1.375	15
Petroleos Brasileiros	07.79	\$400.0	0.500	n.a.
Centrais Elétricas Brasileiras	09.79	\$100.0	0.750	12
Itaipu Binacional	10.79	\$160.0	0.813 ^b	12
Itaipu Binacional	11.79	\$30.0	1.000	10
Itaipu Binacional	11.79	\$50.0	1.375	15
Itaipu Binacional	11.79	\$75.0	1.125	12
Petroleos Brasileiros	02.80	\$600.0	0.625	2.5
Petroleos Brasileiros	04.80	\$250.0	0.938 ^b	10
Banco Nacional de Desenvolvimento Ec.	05.80	\$275.0	0.938	8
Banco Nacional de Desenvolvimento Ec.	05.80	\$275.0	1.063	10
Itaipu Binacional	06.80	\$100.0	0.950	10
Itaipu Binacional	06.80	\$100.0	1.125	10
Centrais Elétricas Brasileiras	07.80	\$400.0	1.375	8
Petroleos Brasileiros	10.80	\$250.0 ^b	1.500	8
Petroleos Brasileiros	11.80	\$275.0	0.750	n.a.
Light-Servicos de Electricidade	12.80	\$25.0	2.000	8
Petroleos Brasileiros	03.81	\$200.0	0.750	2
Petroleos Brasileiros	06.81	\$150.0	1.000	2
Centrais Elétricas Brasileiras	06.81	\$300.0	2.125	8
Itaipu Binacional	07.81	\$10.0	2.125	8
Petroleos Brasileiros	08.81	\$60.0	2.000	8
Itaipu Binacional	09.81	\$100.0	2.215	8
Itaipu Binacional	09.81	\$100.0	2.250	10
Petroleos Brasileiros	10.81	\$36.8	1.750	3.75
Petroleos Brasileiros	12.81	\$40.0	2.000	8
Petroleos Brasileiros	12.81	£100.0	0.688 ^b	2
Light-Servicos de Electricidade	03.82	SwFr30.0	2.125	8
Itaipu Binacional	04.82	\$25.0	2.125	8
Light-Servicos de Electricidade	05.82	\$50.0	2.125	8
Itaipu Binacional	06.82	\$25.0	2.125	8
Centrais Elétricas Brasileiras	06.82	\$30.0	2.125	8
Light-Servicos de Electricidade	06.82	\$50.0	2.125	8

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

c. Value of the LIBOR tranche of a bigger loan.

d. Credit granted to Braspetro Oil Services Co. (Brasoil), with a letter of support from Petrobras.

Source: Constructed with data from *Euromoney*, several issues.

Table D3. Selected Credits to Sovereign Borrowers: Denmark, 1977-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Kingdom of Denmark	12.77	\$200.0	0.964 ^b	7
Kingdom of Denmark	04.78	\$500.0	0.750	7
Kingdom of Denmark	10.78	\$1235.0	0.750	7
Kingdom of Denmark	02.79	\$250.0	0.571 ^b	7
Kingdom of Denmark	07.79	\$500.0	0.500	10
Kingdom of Denmark	04.80	\$225.0	0.500	8
Danish Export Finance Corporation	04.80	DM75.0	0.625	5
Kingdom of Denmark	07.80	\$500.0	0.500	8
Danish Export Finance Corporation	10.80	DM100.0	0.500	5
Kingdom of Denmark	02.81	\$250.0	0.625 ^b	8
Kingdom of Denmark	06.81	\$600.0	0.422 ^b	8
Danish Oil Reserve Stocks	10.81	Dfl67.0	0.375	4.5
Danish Oil Reserve Stocks	10.81	\$16.0	0.375	4.5
Danish Export Finance Corporation	10.81	\$150.0	0.375	5
Kingdom of Denmark	03.82	\$300.0	0.422 ^b	8
Kingdom of Denmark	03.82	\$800.0	0.193	7
Danish Oil and Natural Gas	05.82	\$100.0	0.375	10
Danish Oil and Natural Gas	06.82	\$100.0	0.375	10
Danish Export Finance Corp.	06.82	\$175.0	0.375	6

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D4. Selected Credits to Sovereign Borrowers: France, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Crédit National	01.78	\$50.0	0.625	5
Electricité de France	01.78	\$500.0	0.688 ^b	8
Gaz de France	03.78	\$100.0	0.571 ^b	7
Electricité de France	12.78	\$600.0	0.500	10
Crédit National	06.79	\$100.0	0.463 ^b	10
Electricité de France	06.79	\$1100.0	0.250 ^b	12
Electricité de France	10.79	\$1000.0	0.400	11
Crédit National	06.80	ECU20.0	0.438 ^b	10
Crédit National	06.80	\$50.0	0.438 ^b	10
Crédit National	08.80	\$125.0	0.375	7
Electricité de France	08.80	\$600.0	0.400 ^b	10
Electricité de France	03.81	\$1200.0	0.413 ^b	10
Crédit National	07.81	\$200.0	0.391 ^b	8
Gaz de France	09.81	\$250.0	0.370 ^b	10
Crédit National	10.81	\$75.0	0.250	4.1
Electricité de France	11.81	\$700.0	0.400 ^b	10
Crédit Foncier de France	02.82	\$200.0	0.375	8
Crédit Foncier de France	02.82	\$300.0	0.375	8
Crédit National	06.82	\$330.0 ^c	0.375	8
Gaz de France	06.82	160.0 ^c	0.375	5

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

c. Value of the LIBOR tranche of a bigger loan.

Source: Constructed with data from *Euromoney*, several issues.

Table D5. Selected Credits to Sovereign Borrowers: Hungary, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
National Bank of Hungary	02.78	\$100.0	1.000	7
National Bank of Hungary	05.78	\$300.0	0.696	7
National Bank of Hungary	03.79	\$200.0	0.625	7
National Bank of Hungary	03.79	\$100.0	0.688 ^b	10
National Bank of Hungary	04.80	\$250.0	0.536 ^b	7
National Bank of Hungary	12.80	\$300.0	0.563 ^b	4
National Bank of Hungary	03.81	\$150.0	0.625	4.5
National Bank of Hungary	05.81	\$170.9	0.625	7
Chemolinx Hungaria Trading Company for Chemicals	01.82	£75.0	0.500	2

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D6. Selected Credits to Sovereign Borrowers: Malaysia, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Government of Malaysia	02.78	\$400.0	0.750	8
Government of Malaysia	09.78	\$100.0	0.675 ^b	10
Government of Malaysia	06.79	\$100.0	0.563 ^b	10
Government of Malaysia	01.80	\$200.0	0.521 ^b	12
Malaysia LNG	01.80	\$400.0	0.500	10
Malaysia LNG	01.80	\$150.0	0.3125	10
Federation of Malaysia	04.81	\$300.0	0.438	10
Malaysian International Shipping Corp.	10.81	\$140.0	0.375	10
Government of Malaysia	11.81	\$530.0	0.375	10
Government of Malaysia	11.81	\$170.0	0.0313	10
Malaysian International Shipping Corp.	12.81	\$50.0	0.375	10
Malaysia LNG	02.82	\$175.0	0.375	8
Malaysia LNG	02.82	\$175.0	0.0625	8
Malaysia LNG	03.82	\$75.0	0.0625	8

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D7. Selected Credits to Sovereign Borrowers: Nigeria, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Federal Republic of Nigeria	01.78	\$1000.0	1.000	7
Federal Republic of Nigeria	11.78	\$75.0	1.063 ^b	8
Federal Republic of Nigeria	02.79	\$30.0	1.063 ^b	8
Federal Republic of Nigeria	08.79	\$73.0	1.000	8
Federal Republic of Nigeria	09.79	\$130.0	1.000	8
Federal Republic of Nigeria	09.79	\$50.0	1.000	8
Federal Republic of Nigeria	10.79	\$50.0	1.000	8
Federal Republic of Nigeria	10.79	\$50.0	1.000	8
Federal Republic of Nigeria	10.79	\$43.0	1.000	8
Federal Republic of Nigeria	11.79	DM750.0	1.063 ^b	8
Imo State of Nigeria	02.80	\$25.0	1.000	4
Federal Republic of Nigeria	03.80	\$73.0	1.000	8
Plateau State of Nigeria	03.80	DM122.0	1.000	8
Federal Republic of Nigeria	08.80	\$91.0	0.938 ^b	8
Federal Republic of Nigeria	08.80	\$28.0	1.000	8
Federal Republic of Nigeria	10.80	\$123.0	0.938 ^b	8
Imo State of Nigeria	11.80	\$38.0	0.875	8
Imo State of Nigeria	12.80	\$18.75	0.875	8
Anambra State of Nigeria	12.80	\$38.0	0.875	8
Federal Republic of Nigeria	02.81	\$100.0	0.875	8
Imo State of Nigeria	02.81	\$45.0	0.875	8
Federal Republic of Nigeria	03.81	\$85.0	0.875	8
Federal Republic of Nigeria	04.81	DM456.0	0.875	8
Federal Republic of Nigeria	05.81	\$553.0	0.875	8
Imo State of Nigeria	07.81	\$32.0	0.875	8
Anambra State of Nigeria	09.81	\$37.5	0.875	8
Anambra State of Nigeria	10.81	\$48.0	0.875	8
Imo State of Nigeria	11.81	\$23.6	0.875	8
Federal Republic of Nigeria	12.81	DM90.0	0.875	8
Federal Republic of Nigeria	12.81	\$37.0	0.875	8
Federal Republic of Nigeria	12.81	DM160.0	0.875	8
Imo State of Nigeria	03.82	\$50.0	0.875	8
Nigerian National Petroleum Corporation	03.82	\$80.0	0.870	11.5
Benue State of Nigeria	08.82	\$35.0	0.875	8

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D8. Selected Credits to Sovereign Borrowers: The Philippines, 1977-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
National Power Corporation	11.77	\$13.3	1.625	7
Central Bank of the Philippines	04.78	\$100.0	1.000	7
Central Bank of the Philippines	06.78	\$500.0	1.000	10
National Power Corporation	08.78	\$70.0	1.000	10
Philippine Airlines	10.78	\$75.0	1.000	10
Development Bank of the Philippines	11.78	\$150.0	1.000	10
Central Bank of the Philippines	02.79	\$250.0	0.750	10
The Philippines Government	04.79	\$75.0	0.938 ^b	12
Central Bank of the Philippines	05.79	\$100.0	0.750	10
Philippine National Bank	08.79	\$75.0	0.750	12
Central Bank of the Philippines	11.79	\$75.0	1.000	4
Central Bank of the Philippines	02.80	\$200.0	0.750	10
Philippine National Bank	02.80	\$75.0	0.750	12
Manila Power Co.	03.80	\$47.0	0.950	10
Philippine Ass. Smelting & Refining	03.80	\$85.0	0.827	15.5
Central Bank of the Philippines	08.80	\$100.0	0.750	8
Central Bank of the Philippines	11.80	\$100.0	0.875	8
Central Bank of the Philippines	02.81	\$200.0	0.875	8
Central Bank of the Philippines	02.81	\$50.0	1.000	6.25
Central Bank of the Philippines	05.81	\$50.0	0.875	8
National Power Corporation	07.81	\$60.0	0.925 ^b	10
Central Bank of the Philippines	08.81	\$100.0	0.815 ^b	12.5
Central Bank of the Philippines	10.81	\$100.0	0.750	10
Central Bank of the Philippines	02.82	\$325.0	0.713 ^b	10
Development Bank of the Philippines	05.82	\$75.0	0.813 ^b	10
Development Bank of the Philippines	06.82	\$75.0	0.813 ^b	10
National Power Corporation	06.82	\$22.5	0.750	8

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D9. Selected Credits to Sovereign Borrowers: Romania, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Romanian Bank for Foreign Trade	02.78	\$53.0	1.000	5
Romanian Bank for Foreign Trade	04.78	\$100.0	0.925 ^b	5
Romanian Bank for Foreign Trade	06.79	\$320.0	0.788 ^b	10
Romanian Bank for Foreign Trade	01.80	DM100.0	0.625	8
Romanian Bank for Foreign Trade	01.80	\$100.0	0.625	8
Romanian Bank for Foreign Trade	06.80	\$50.0	0.750	8
Romanian Bank for Foreign Trade	06.80	\$50.0	0.500	3
Investment Bank of Romania	01.81	\$200.0	0.750	8
Romanian Bank for Foreign Trade	05.81	\$85.0	0.625	4
Romanian Bank for Foreign Trade	08.81	\$52.0	0.625	2

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

c. Value of the LIBOR tranche of a bigger loan.

Source: Constructed with data from *Euromoney*, several issues.

Table D10. Selected Credits to Sovereign Borrowers: South Korea, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Korea Exchange Bank / Korea Development Bank	06.78	\$500.0	0.875	10
Korea Development Finance Corp.	08.78	\$30.0	0.875	10
Korea Air Lines Co.	11.78	\$124.0	0.875	8
Korea Electric Co.	12.78	\$400.0	1.000	10
Export-Import Bank of Korea	02.79	\$200.0	0.725 ^b	10
Korea Exchange Bank	03.79	\$400.0	0.725 ^b	10
Korea Electric Co.	05.79	\$31.0	0.875	10
Korea Development Bank	06.79	\$600.0	0.688 ^b	10
Korea Development Finance Corp.	07.79	\$50.0	0.750	10
Korea Electric Co.	07.79	\$189.0	0.750	10
Korea Air Lines Co.	10.79	\$369.0	0.750	10
Korea Air Lines Co.	10.79	\$131.0	0.688 ^b	10
Republic of Korea	01.80	\$55.0	0.713 ^b	10
Korea Exchange Bank	03.80	\$500.0	0.828	8
Republic of Korea	06.80	\$64.0	0.813 ^b	8
Korea Development Bank	11.80	\$600.0	0.875	8
Korea Electric Company	05.81	\$200.0	0.875	10
Export-Import Bank of Korea	07.81	\$200.0	0.750	8
Export-Import Bank of Korea	07.81	\$201.1	0.375	9
Korea Exchange Bank	07.81	\$700.0	0.625	8
Korea Electric Company	12.81	\$70.0	0.650 ^b	10
Korea Electric Company	12.81	\$20.0	0.238 ^b	10
Export-Import Bank of Korea	03.82	\$300.0	0.500	8
Korea Exchange Bank	05.82	\$300.0 ^c	0.469 ^b	8

a. Official name of the borrower (central or local government, central bank or public enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

c. Value of the LIBOR tranche of a bigger loan.

Source: Constructed with data from *Euromoney*, several issues.

Table D11. Selected Credits to Sovereign Borrowers: Venezuela, 1978-82
(million dollars; percentage points above LIBOR and years)

BORROWER ^a	Date	Amount	Spread	Term
Republic of Venezuela	02.78	\$1200.0	0.750	10
Corporación Venezolana de Fomento	05.78	\$58.14	0.750	2
Corporación Venezolana de Fomento	06.78	\$40.0	0.750	2
Republic of Venezuela	10.78	\$200.0	0.713 ^b	10
Corporación Venezolana de Fomento	02.79	\$50.0	0.500	2
Instituto Nacional de la Vivienda	05.79	\$186.0	0.500	1
Republic of Venezuela	05.79	\$154.0	1.000	8
Instituto Nacional de la Vivienda	07.79	\$200.0	1.000	1
Corporación Venezolana de Fomento	10.79	\$250.0	0.250	1
Instituto Nacional de la Vivienda	10.79	\$35.0	0.625	3
Instituto Nacional de la Vivienda	12.79	\$400.0	0.375	1
Corporación Venezolana de Fomento	02.80	\$70.0	0.250	1
Corporación Venezolana de Fomento	04.80	\$147.0	0.250	1
Instituto Nacional de Obras Sanitarias	05.80	\$360.0	0.500	1
Republic of Venezuela	08.80	\$1800.0	0.696	7
Fondo Nacional de Desarrollo Urbano	09.80	\$200.0	0.375	1
Instituto Nacional de la Vivienda	10.80	\$160.0	0.4375	1
Corporación Venezolana de Fomento	10.80	\$300.0	0.375	1
Instituto Nacional de Obras Sanitarias	10.80	\$380.0	0.500	1
Corporación Venezolana de Fomento	11.80	\$250.0	0.375	1
Instituto Nacional de la Vivienda	11.80	\$400.0	0.375	1
Corporación Venezolana de Fomento	02.81	\$100.0	0.500	1
Corporación Venezolana de Fomento	03.81	\$97.0	0.375	1
Instituto Nacional de la Vivienda	03.81	\$186.0	0.375	1
Corporación Venezolana de Fomento	04.81	\$50.0	0.375	1
Corporación Venezolana de Fomento	05.81	\$155.0	0.375	1
Instituto Nacional de la Vivienda	05.81	\$54.0	0.375	1
Corporación Venezolana de Fomento	06.81	\$400.0	0.375	1
Corporación Venezolana de Fomento	02.82	\$50.0	0.469 ^b	1
Corporación Venezolana de Fomento	02.82	\$52.0	0.500	1
Republic of Venezuela	03.82	\$600.0	0.600	10
Corporación Venezolana de Fomento	03.82	\$50.0	0.4375	1
Instituto Nacional de la Vivienda	03.82	\$186.0	0.375	1
Corporación Venezolana de Fomento	04.82	\$90.0	0.4375	1
Corporación Venezolana de Fomento	06.82	\$115.0	0.4375	1
Corporación Venezolana de Fomento	06.82	\$315.0	0.500	1
Instituto Nacional de la Vivienda	06.82	\$23.25	0.0625	1
Instituto Nacional de la Vivienda	06.82	\$40.0	0.625	1
Corporación Venezolana de Fomento	08.82	\$100.0	0.500	1

a. Official name of the borrower (central or local government, central bank or public enterprise). enterprise).

b. Average of the two or three different spreads agreed for the loan's term.

Source: Constructed with data from *Euromoney*, several issues.

Table D12. Average Spreads on Selected Euroloans to Sovereign Borrowers, 1977-82^a
(percentage points)

	Argentina	Brazil	Denmark	France	Hungary	Malaysia	Mexico ^b
1977.4	-	-	0.964	-	-	-	-
1978.1	1.625	2.125		0.614	1.000	0.750	1.375
1978.2	1.375	1.938	0.750	-	0.696	-	1.250
1978.3	1.536	1.875	-	-	-	0.675	0.750
1978.4	1.438	1.292	0.750	0.500	-	-	0.875
1979.1	0.788	0.75	0.571	-	0.657	-	0.563
1979.2	-	1.172	-	0.357	-	0.563	0.608
1979.3	-	0.625	0.500	-	-	-	0.594
1979.4	0.625	0.990	-	0.400	-	-	0.500
1980.1	0.500	0.625	-	-	-	0.521	-
1980.2	0.688	0.989	0.500	0.438	0.536	-	0.521
1980.3	0.500	-	0.500	0.388	-	-	0.250
1980.4	0.563	1.417	0.500	-	-	-	0.250
1981.1	0.563	0.750	0.625	0.413	0.563		
1981.2	-	1.563	0.422	-	0.625	0.438	0.500
1981.3	0.479	2.119	-	0.381	0.625	-	0.500
1981.4	1.125	1.547	0.375	0.325	-	0.318	0.125
1982.1	0.813	2.125	0.422	0.375	0.500	0.422	
1982.2	-	2.125	0.375	0.375	-	-	0.563
	Nigeria	Philippines	Rumania	S. Korea	Venezuela	Euroindex ^c	
1977.4	-	1.625	-	-	-		
1978.1	1.000	-	1.000	-	0.750		147.5
1978.2	-	1.000	0.925	0.875	0.750		137.7
1978.3	-	1.000	-	0.875	-		127.5
1978.4	1.063	1.000	-	0.938	0.713		116.5
1979.1	1.063	0.750	-	0.725	0.500		117.1
1979.2	-	0.844	0.788	0.782	0.750		94.9
1979.3	1.000	0.750	-	0.750	1.000		104.0
1979.4	1.032	1.000	-	0.719	0.407		84.0
1980.1	1.000	0.750	0.625	0.713	0.250		89.5
1980.2	-	-	0.625	0.813	0.250		104.2
1980.3	0.969	0.750	-	-	-		114.9
1980.4	0.896	0.875		0.875	0.391		111.8
1981.1	0.875	0.938	0.750	-	0.438		108.2
1981.2	0.875	0.875	0.625	0.875	0.375		118.9
1981.3	0.875	0.870	-	0.583	-		108.9
1981.4	0.875	0.750	-	0.444	-		115.4
1982.1	0.875	0.713	-	0.500	0.478		93.6
1982.2	-	0.813	-	0.469	0.422		150.8
1982.3	0.875	-	-	-	-		

a. Quarterly spreads above LIBOR. The 1977.4 and 1982.3 data are included for countries where data for 1978.1 and 1982.2 did not exist, in order to obtain a proxy for those periods.

b. Calculated from the spreads on loans to PEMEX (see Table B.X.). As PEMEX did not borrow during the second quarter of 1980, spreads on the loans to the UMS are used in that quarter.

c. Quarterly average of the three-month moving average of the Euromoney index presented in Table C.X.

Source: Calculated from monthly data from Tables B.X., C.X., and D.1.-D.11.

Table D13. Selected Eurocredits to Sovereign Borrowers During 1978
(million dollars; percentage points above LIBOR and years)

BORROWER	Amount	Spread	Term
Abu Dhabi (The Emirate of Abu Dhabi)	\$200.0	1.000	8
Algeria (Sonatrach)	\$218.0	1.375	7
Argentina (Yacimientos Petrolíferos Fiscales)	\$250.0	1.536	7
Bahamas (Commonwealth of the Bahamas)	\$10.0	1.500	5
Bahrain (The Bahrain National Oil Company)	\$60.0	0.696	7
Barbados (Government of Barbados)	\$10.0	1.375	7
Bolivia (The Republic of Bolivia)	\$155.0	1.571	7
Botswana (Republic of Botswana)	\$45.0	2.000	7
Brazil (Centrais Eletricas Brasileiras)	\$250.0	1.750	10
Chile (Banco Central de Chile)	\$125.0	1.854	6
Costa Rica (The Republic of Costa Rica)	\$28.0	1.750	7
Cyprus (The Republic of Cyprus)	\$40.0	0.946	7
Czechoslovakia (Ceskoslovenska Obehudni Banka)	\$150.0	0.750	7
Denmark (Kingdom of Denmark)	\$1235.0	0.750	7
Finland (Neste Oy)	\$75.0	0.775	10
France (Electricité de France)	\$500.0	0.688	8
Gabon (The Republic of Gabon)	\$80.0	2.250	7
Ghana (Bank of Ghana)	\$30.0	1.500	2
Greece (Bank of Greece)	\$300.0	0.713	10
Hungary (National Bank of Hungary)	\$300.0	0.696	7
Indonesia (The Republic of Indonesia)	\$500.0	1.375	7
Iran (National Iranian Gas Company)	\$300.0	0.688	10
Italy (Istituto per la Ricostruzione Industriale)	\$500.0	0.875	7
Ivory Coast (Republic of Ivory Coast)	\$60.0	1.750	7
Jamaica (Government of Jamaica)	\$32.0	2.000	5
Liberia (The Republic of Liberia)	\$60.0	1.625	8
Madagascar (Central Bank of Madagascar)	\$29.6	2.000	6
Malaysia (Government of Malaysia)	\$400.0	0.750	8
Mauritius	\$37.0	1.705	7
Mexico Petroleos Mexicanos)	\$1000.0	1.250	10
Morocco (Kingdom of Morocco)	\$325.0	1.196	7
New Zealand	\$500.0	0.714	7
Nigeria (The Federal Republic of Nigeria)	\$1000.0	1.000	7
Panama (Republic of Panama)	\$300.0	1.438	10
Poland (Kombinat Gorniczo-Hutniczy Miedzi W Lubinie)	\$250.0	1.422	8
Portugal (Republic of Portugal)	\$150.0	1.000	7
Qatar (Qatar Steel Company)	\$100.0	0.700	10
Romania (Romanian Bank for Foreign Trade)	\$100.0	0.925	5
South Korea (Korea Development Bank/Korea Exchange Bank)	\$500.0	0.875	10
Spain (The State of Spain)	\$300.0	0.875	7
Swaziland (The Kingdom of Swaziland)	\$28.0	1.750	7
Thailand (Ministry of Finance of the Kingdom of Thailand)	\$75.0	0.875	8
The Philippines (Central Bank of the Philippines)	\$500.0	1.000	10
Tunisia (The Republic of Tunisia)	\$150.0	0.875	8
United Kingdom (The Lords Commissioners of H.M. Treasury)	\$1500.0	0.625	10
Uruguay (Banco Central del Uruguay)	\$100.0	1.250	10
USSR (Bank for Foreign Trade of the USSR)	\$400.0	0.750	7
Venezuela (The Republic of Venezuela)	\$1200.0	0.750	10
Yugoslavia (Privredna Banka Zagreb)	\$155.0	1.750	7

Note: The official name of the sovereign borrower is between brackets. When several loans were contracted during the year by that borrower, the average spread and average maturity are presented.

Source: Constructed with data from *Euromoney*, several issues.

Table D14. Selected Eurocredits to Sovereign Borrowers During 1979
(million dollars; percentage points above LIBOR and years)

BORROWER	Amount	Spread	Term
Algeria (Banque Exterieur d'Algerie)	\$150.0	1.194	9
Argentina (Banco de la Nación Argentina)	\$300.0	0.750	10
Belgium (Kingdom of Belgium)	\$1000.0	0.438	8
Bolivia (Yacimientos Petrolíferos Fiscales Bolivianos)	\$47.0	1.375	8
Brazil (Federative Republic of Brasil)	\$1200.0	0.708	12
Bulgaria (Bulgarian Foreign Trade Bank)	\$100.0	0.625	7
Chile (Banco de Chile)	\$105.0	0.819	9
China (Bank of China)	\$100.0	0.500	5
Colombia (Republic of Colombia)	\$600.0	0.688	10
Costa Rica (Instituto Costarricense de Electricidad)	\$70.0	1.125	10
Czechoslovakia (Ceskoslovenska Obchodni Banka)	\$200.0	0.625	10
Denmark (Kingdom of Denmark)	\$500.0	0.500	10
Ecuador (Republic of Ecuador)	\$520.0	0.869	10
France (Electricité de France)	\$1100.0	0.250	12
Gabon (Republic of Gabon)	\$100.0	1.821	7
Greece (Greek Public Power Corporation)	\$125.0	0.550	10
Honduras (Republic of Honduras)	\$18.0	1.000	10
Hungary (National Bank of Hungary)	\$200.0	0.625	7
Iceland (Republic of Iceland)	\$50.0	0.625	12
Indonesia (Republic of Indonesia)	\$350.0	0.813	10
Ireland (Government of Ireland)	\$400.0	0.500	10
Italy (Ente Nazionale per l'Energia Elettrica)	\$600.0	0.575	10
Ivory Coast (Republic of Ivory Coast)	\$56.0	1.625	10
Malaysia (Government of Malaysia)	\$100.0	0.563	10
Mauritius	\$25.0	1.750	7
Mexico (Nacional Financiera)	\$500.0	0.875	10
New Zealand	\$500.0	0.375	5
Niger (Banque de Developpement)	Ffr120.0	1.625	10
Nigeria (Federal Republic of Nigeria)	\$73.0	1.000	8
Panama (Republic of Panama)	\$135.0	0.875	10
Peru (Republic of Peru)	\$40.0	1.375	8
Poland (Bank Handlowy w Warszawie)	\$550.0	1.339	7
Romania (Romanian Bank for Foreign Trade)	\$320.0	0.788	10
South Korea (Korea Exchange Bank)	\$400.0	0.725	10
Spain (Red Nacional de Ferrocarriles Españoles)	\$130.0	0.688	10
Sri Lanka (Republic of Sri Lanka)	\$50.0	0.938	8
Sweden (Kingdom of Sweden)	\$800.0	0.463	10
Taiwan (Taiwan Power Company)	\$60.0	0.750	8.5
Tanzania (Air Tanzania)	\$12.0	1.500	10
Thailand (Kingdom of Thailand)	\$100.0	0.750	10
The Philippines (Central Bank of the Philippines)	\$250.0	0.750	10
Trinidad & Tobago (Republic of Trinidad & Tobago)	\$29.0	0.667	6
Tunisia (Trans-Tunisian Pipeline)	\$65.0	0.938	12
United Kingdom (British Post Office)	\$250.0	0.500	10
Venezuela (Siderúrgica del Orinoco)	\$200.0	0.688	10
Yugoslavia (Privredna Banka Zagreb)	\$300.0	1.000	10

Note: The official name of the sovereign borrower is between brackets. When several loans were contracted during the year by that borrower, the average spread and average maturity are presented.

Source: Constructed with data from *Euromoney*, several issues.

Table D15. Selected Eurocredits to Sovereign Borrowers During 1980
(million dollars; percentage points above LIBOR and years)

BORROWER	Amount	Spread	Term
Algeria (Banque Nationale d' Algerie)	\$200.0	0.875	10
Argentina (Banco de la Nación Argentina)	\$350.0	0.500	5
Belgium (Kingdom of Belgium)	\$1100.0	0.444	9
Brazil (Centrais Elétricas Brasileiras)	\$400.0	1.375	8
Chile (Banco del Estado de Chile)	\$36.0	0.813	8
China (Bank of China)	\$300.0	0.500	5
Colombia (Republic of Colombia)	\$350.0	0.750	10
Costa Rica (Instituto Costarricense de Electricidad)	\$40.0	1.125	7
Cyprus (Republic of Cyprus)	\$75.0	0.500	8
Czechoslovakia (Czech Foreign Trade Bank)	\$250.0	0.750	7
Denmark (Kingdom of Denmark)	\$500.0	0.500	8
Dominican Republic (Consejo Estatal del Azúcar)	\$90.0	1.238	10
Ecuador (Republic of Ecuador)	\$250.0	0.750	7
Egypt (National Egyptian Railways Organization)	DM82.0	0.875	6.3
France (Electricité de France)	\$600.0	0.400	10
Gabon (Republic of Gabon)	\$100.0	1.500	8
Greece (Central Bank of Greece)	\$550.0	0.625	8
Guatemala (Banco de Guatemala)	\$50.0	0.750	0.5
Hungary (National Bank of Hungary)	\$250.0	0.536	7
Iceland (Republic of Iceland)	\$30.0	0.450	5
India (Indian Airlines)	\$30.0	0.475	5
Indonesia (Central Bank of Indonesia)	\$350.0	0.675	10
Italy (Ente Nazionale per l'Energia Elettrica)	\$1000.0	0.625	8
Ivory Coast (Republic of Ivory Coast)	\$110.0	1.625	10
Jordan (Kingdom of Jordan)	\$150.0	0.625	7
Lesotho (Kingdom of Lesotho)	\$10.0	1.750	5
Malawi (Development Corporation of Malawi)	\$12.0	1.500	6
Malaysia (Government of Malaysia)	\$200.0	0.521	12
Mauritius (Bank of Mauritius)	\$45.0	1.625	5
Mexico (United Mexican States)	\$300.0	0.531	8
Morocco (Kingdom of Morocco)	\$250.0	1.047	8
New Zealand (New Zealand Refining Co.)	\$500.0	0.625	11
Niger (Republic of Niger)	\$8.0	1.625	10
Nigeria (Federal Republic of Nigeria)	\$123.0	0.938	8
Norway (Statoil)	\$50.0	0.375	8
Pakistan (Islamic Republic of Pakistan)	\$200.0	1.375	1
Panama (Republic of Panama)	\$210.0	1.250	8
Papua New Guinea (State of Papua New Guinea)	\$75.0	0.625	8
Peru (Republic of Peru)	\$25.0	1.297	8
Philippines (Central Bank of the Philippines)	\$200.0	0.750	10
Poland (Bank Handlowy y Warsawie)	\$325.0	1.500	7
Portugal (Republic of Portugal)	\$350.0	0.672	8
Romania (Romanian Bank for Foreign Trade)	\$100.0	0.625	8
Singapore (Singapore Airlines)	\$50.0	0.063	8
South Africa (Republic of South Africa)	\$250.0	0.964	7
South Korea (Korea Development Bank)	\$600.0	0.875	8
Sri Lanka (Air Lanka)	\$40.0	0.844	8
Sweden (Kingdom of Sweden)	\$850.0	0.438	8
Taiwan (Taiwan Power Corporation)	\$100.0	0.750	8
Thailand (Kingdom of Thailand)	\$350.0	0.750	8
Trinidad & Tobago (Republic of Trinidad & Tobago)	\$150.0	0.625	8
Tunisia (Tunis Air)	\$23.0	0.500	5
Uruguay (Republic of Uruguay)	\$50.0	0.938	8
Venezuela (Republic of Venezuela)	\$1800.0	0.696	7
Yugoslavia (National Bank of Yugoslavia)	\$400.0	1.250	7
Zambia (Zambian Roan Consolidated Mines)	\$30.0	0.375	6.5
Zimbabwe (National Railways of Zimbabwe)	\$17.6	1.200	5

Note: The official name of the sovereign borrower is between brackets. When several loans were contracted during the year by that borrower, the average spread and average maturity are presented.

Source: Constructed with data from *Euromoney*, several issues.

Table D16. Selected Eurocredits to Sovereign Borrowers During 1981
(million dollars; percentage points above LIBOR and years)

BORROWER	Amount	Spread	Term
Angola (Banco Nacional de Angola)	\$30.0	1.708	6
Argentina (Republic of Argentina)	\$250.0	0.563	8
Bolivia (Banco Central de Bolivia)	\$250.0	2.250	7
Brazil (Centrais Elétricas Brasileiras)	\$300.0	2.125	8
Chile (Banco del Estado de Chile)	\$50.0	0.703	8
Colombia (Republic of Colombia)	\$200.0	0.625	10
Cuba (Banco Nacional de Cuba)	FFR57.5	1.125	10
Cyprus (Republic of Cyprus)	\$60.0	0.719	8
Denmark (Kingdom of Denmark)	\$600.0	0.422	8
Ecuador (Republic of Ecuador)	\$100.0	0.688	10
France (Electricité de France)	\$1200.0	0.413	10
Greece (National Bank of Greece)	\$400.0	0.438	10
Guatemala (Banco de Guatemala)	\$25.0	1.250	7
Hungary (National Bank of Hungary)	\$150.0	0.625	4.5
Iceland (Development Bank of Iceland)	\$6.5	0.563	10
India (Oil and Natural Gas Commission)	\$200.0	0.464	7
Indonesia (Republic of Indonesia)	\$300.0	0.375	10
Ireland (Republic of Ireland)	\$250.0	0.438	10
Italy (Cassa per il Mezzogiorno)	\$346.5	0.438	8
Ivory Coast (Republic of Ivory Coast)	\$225.0	1.453	8
Jamaica (Government of Jamaica)	\$100.0	2.000	5
Kenya (Republic of Kenya)	\$115.0	1.078	8
Malaysia (Government of Malaysia)	\$530.0	0.375	10
Mexico (United Mexican States)	\$700	0.438	8
Morocco (Kingdom of Morocco)	\$40.0	1.047	8
New Zealand (Government of New Zealand)	\$122.0	0.413	10.75
Nigeria (Federal Republic of Nigeria)	\$348.0	0.875	8
Pakistan (Islamic Republic of Pakistan)	\$200.0	0.875	1.25
Paraguay (Industria Nacional del Cemento Paraguay)	\$36.95	1.1625	10
Peru (Banco de la Nación)	\$100.0	1.125	10
Philippines (Central Bank of the Philippines)	\$200.0	0.875	8
Portugal (Republic of Portugal)	\$500.0	0.469	8
Romania (Investment Bank of Romania)	\$200.0	0.750	8
Solomon Islands (Government of Solomon Islands)	\$20.0	1.016	8
South Korea (Korea Exchange Bank)	\$700.0	0.625	8
Spain (Kingdom of Spain)	\$500.0	0.406	8
Sri Lanka (Air Lanka)	\$50.0	0.750	8
Sweden (Kingdom of Sweden)	\$800.0	0.438	10
Thailand (Electricity Generating Authority of Thailand)	\$165.0	0.563	8
Turkey (Central Bank of the Republic of Turkey)	\$100.0	1.125	1
United Kingdom (British Nuclear Fuels)	£200.0	0.425	10
USSR (Bank for Foreign Trade of the USSR)	\$25.0	0.500	4.5
Venezuela (Corporación Venezolana de Fomento)	\$400.0	0.375	1
Yugoslavia (Several banks)	\$117.0	1.250	7
Zambia (Bank of Zambia)	\$150.0	1.250	1
Zimbabwe (Electricity Supply Commission of Zimbabwe)	\$55.0	1.375	7

Source: Constructed with data from *Euromoney*, several issues.

Table D17. Selected Eurocredits to Sovereign Borrowers During 1982
(million dollars; percentage points above LIBOR and years)

BORROWER	Amount	Spread	Term
Argentina (Yacimientos Petrolíferos Fiscales)	\$44.5	0.875	2
Austria (Republic of Austria)	\$400.0	0.375	8
Belgium (Kingdom of Belgium)	£125.0	0.375	5
Brazil (Empresas Nucleares Brasileiras)	\$150.0	2.125	8
Chile (Banco del Estado de Chile)	\$78.0	0.938	8
Colombia (Republic of Colombia)	\$200.0	0.588	10
Denmark (Kingdom of Denmark)	\$800.0	0.193	7
Ecuador (Republic of Ecuador)	\$200.0	0.250	1
Fiji (Government of Fiji)	\$25.0	0.688	10
France (Crédit National)	\$300.0	0.375	8
Greece (Central Bank of Greece)	\$550.0	0.500	8
Hungary (Chemolinx Hungaria Trading Co. for Chemicals)	£75.0	0.500	2
Iceland (Republic of Iceland)	\$75.0	0.438	10
India (Industrial Development Bank of India)	\$25.0	0.413	10
Indonesia (Republic of Indonesia)	\$300.0	0.375	10
Ireland (Republic of Ireland)	\$300.0	0.438	10
Italy (Istituto per la Ricostruzione Industriale)	\$250.0	0.563	8
Ivory Coast (Republic of the Ivory Coast)	\$80.0	1.453	8
Malaysia (Malaysia LNG)	\$175.0	0.375	8
Mauritius (Bank of Mauritius)	\$40.0	1.500	8
Mexico (Petróleos Mexicanos)	\$2000.0	0.875	4
Morocco (Banque Nationale pour le Dev. Economique)	SWF100.0	1.125	6
New Zealand (New Zealand Railways)	\$35.0	0.375	7
Nigeria (Nigerian National Petroleum Corporation)	\$80.0	0.870	11.5
Pakistan (Islamic Republic of Pakistan)	\$64.3	0.625	2
Papua New Guinea (State of Papua New Guinea)	\$100.0	0.525	10
Peru (Banco Central de la Reserva del Perú)	\$200.0	0.625	3.5
Philippines (Central Bank of the Philippines)	\$325.0	0.713	10
Portugal (Republic of Portugal)	DM300.0	0.594	8
South Africa (Electricity Supply Commission)	\$250.0	0.750	7
South Korea (Export-Import Bank of Korea)	\$300.0	0.500	8
Spain (Kingdom of Spain)	\$300.0	0.438	10
Sri Lanka (Democratic Socialist Republic of Sri Lanka)	\$100.0	0.594	8
Sweden (Kingdom of Sweden)	£150.0	0.438	10
Taiwan (Taiwan Power Corporation)	\$250.0	0.413	10
Thailand (Kingdom of Thailand)	\$50.0	0.500	8
Trinidad & Tobago (Republic of Trinidad & Tobago)	\$52.5	0.800	10
Uruguay (Republic of Uruguay)	\$15.0	0.813	8
USSR (Bank for Foreign Trade of the USSR)	\$90.0	0.500	8
Venezuela (Republic of Venezuela)	\$600.0	0.600	10
Yugoslavia (National Bank of Yugoslavia)	DM150.0	1.500	7
Zambia (Bank of Zambia)	\$160.0	1.375	1

Source: Constructed with data from *Euromoney*, several issues.

Table D18. Selected Sovereign International Bond Issues, 1992-94.
(million German Deustchemarks)

Borrower ^a	Offer Date	Value	Issue Price	Coupon	Maturity (years)
1992					
Hungary (National Bank of Hungary)	01.92	DM600.0	100.250	10.250	7
South Africa (Development Bank of Southern Africa)	02.92	DM200.0	101.250	10.000	6
South Korea (Korea Development Bank)	05.92	DM200.0	100.850	8.500	5
Turkey (Republic of Turkey)	07.92	DM400.0	100.750	10.250	7
Venezuela (Bariven)	05.92	DM250.0	100.250	10.750	5
1993					
Argentina (Republic of Argentina)	09.93	DM1,000.0	100.900	8.000	5
Brazil (Unibanco)	11.93	DM200.0	100.500	8.250	3
Greece (Bank of Greece)	03.93	DM1,000.0	101.600	7.750	5
Hungary (National Bank of Hungary)	11.93	DM1,000.0	101.800	8.000	10
Mexico (Bancomext)	04.93	DM200.0	101.850	8.000	5
Portugal (Republic of Portugal)	06.93	DM1,500.0	101.975	7.125	10
Turkey (Republic of Turkey)	06.93	DM750.0	101.650	8.750	10
Venezuela (Republic of Venezuela)	04.93	DM150.0	100.000	10.250	5
1994					
Argentina (Republic of Argentina)	06.94	DM500.0	99.975	8.000	5
China (Bank of China)	06.94	DM300.0	101.425	7.125	5

a. The official name of the borrower goes between brackets.

Source: Constructed with data from World Bank(b), several issues.

Table D19. Selected Sovereign International Bond Issues, 1992-94
(U.S. million dollars)

Borrower ^a	Offer Date	Value	Issue Price	Coupon	Maturity (years)
1992					
Argentina (Republic of Argentina)	10.92	\$250.0	100.060	8.250	5
Brazil (Petrobras)	01.92	\$300.0	100.520	10.000	1
Hungary (National Bank of Hungary)	08.92	\$200.0	97.620	8.800	10
Mexico (United Mexican States)	08.92	\$250.0	99.750	8.500	10
South Korea (Korea Development Bank)	01.92	\$500.0	98.610	7.900	10
Thailand (Kingdom of Thailand)	01.92	\$300.0	99.670	8.250	10
Trinidad and Tobago (Republic of Trinidad and Tobago)	10.92	\$100.0	99.000	11.500	5
Turkey (Republic of Turkey)	03.92	\$200.0	100.000	8.500	5
Uruguay (Republica Oriental del Uruguay)	05.92	\$100.0	99.090	8.250	3
Venezuela (Bariven) ^b	02.92	\$400.0	99.860	9.440	6.5
1993					
Argentina (Republic of Argentina) ^c	07.93	\$250.0	99.849	7.5625	5
Brazil (Petrobras)	09.93	\$200.0	99.947	7.500	3
Colombia (Republic of Colombia)	04.93	\$125.0	99.240	7.130	5
China (People's Republic of China)	10.93	\$300.0	99.150	6.130	10
Czech Republic (Czech National Bank)	03.93	\$375.0	99.830	7.000	3
Hungary (National Bank of Hungary)	05.93	\$150.0	99.500	8.000	5
Mexico (United Mexican States)	02.93	\$200.0	99.230	7.250	5
Philippines (Republic of the Philippines)	02.93	\$150.0	99.880	7.880	3
Portugal (Republic of Portugal)	09.93	\$1,000.0	99.350	5.750	10
South Korea (Korea Development Bank)	04.93	\$300.0	99.332	6.250	6.66
Trinidad and Tobago (Republic of Trinidad and Tobago)	10.93	\$125.0	99.790	9.750	7
Uruguay (Republica Oriental del Uruguay)	04.93	\$100.0	99.920	7.500	5
Venezuela (Republic of Venezuela)	03.93	\$150.0	100.000	9.125	3
1994					
Argentina (Provincia de Buenos Aires)	06.94	\$100.0	100.000	9.500	3
Brazil (State of Minas Gerais) ^d	01.94	\$200.0	100.000	8.063	5.5
Colombia (Republic of Colombia)	09.94	\$175.0	99.750	8.750	5
China (Bank of China)	03.94	\$400.0	99.710	6.750	5
Costa Rica (Instituto Costarricense de Electricidad)	01.94	\$50.0	100.039	8.375	3
Czech Republic (Czech National Bank)	04.94	\$250.0	101.130	7.750	5
Jamaica (National Commercial Bank)	08.94	\$55.0	100.000	8.440	6
Mexico (Bancomext)	01.94	\$1,000.0	99.516	7.250	10
Philippines (National Power Co.)	07.94	\$100.0	99.412	9.750	15
South Korea (Korea Development Bank)	09.94	\$500.0	100.000	8.090	10
Trinidad and Tobago (Republic of Trinidad and Tobago)	09.94	\$150.0	99.734	11.750	10
Uruguay (Republica Oriental del Uruguay)	02.94	\$100.0	99.675	7.250	7

a. The official name of the borrower goes between brackets.

b. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled \$400 million.

c. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled \$250 million.

d. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled \$200.0 million.

Source: Constructed with data from World Bank(b), several issues.

Table D20. Selected Sovereign International Bond Issues, 1992-94
(thousand million Japanese Yen)

Borrower ^a	Offer Date	Value	Issue Price	Coupon	Maturity (years)
1992					
China (Bank of China)	07.92	¥15.0	100.000	6.200	5
Hungary (National Bank of Hungary)	01.92	¥30.0	100.000	6.800	6
South Korea (Korea Development Bank)	02.93	¥40.0	100.200	5.900	5
Turkey (Republic of Turkey)	06.92	¥50.0	100.000	7.500	5
1993					
Brazil (Petrobras)	12.93	¥21.0	100.000	5.875	3
China (People's Republic of China)	09.93	¥30.0	100.000	4.375	5
Colombia (Republic of Colombia)	12.93	¥10.0	100.000	3.550	5
Czech Republic (Czech National Bank)	07.93	¥35.0	100.500	6.600	7
Greece (Bank of Greece)	02.93	¥100.0	100.000	6.000	10
Hungary (National Bank of Hungary)	03.93	¥50.0	100.000	6.450	7
Malaysia (Petronas)	12.93	¥50.0	100.000	4.100	10
Mexico (United Mexican States)	07.93	¥10.0	100.500	4.900	3
Portugal (Republic of Portugal)	09.93	¥75.0	99.950	4.875	4.5
South Korea (Korea Development Bank)	02.93	¥40.0	100.000	4.700	5
Thailand (Kingdom of Thailand)	03.93	¥20.0	100.000	4.950	7
Turkey (Republic of Turkey)	02.93	¥100.0	100.000	6.300	7
Venezuela (Corp. Andina de Fomento)	11.93	¥10.0	100.000	4.000	5
1994					
China (People's Republic of China) ^b	07.94	¥60.0	100.000	4.675	7.5
Greece (Hellenic Republic) ^c	07.94	¥110.0	100.000	5.300	5
Hungary (National Bank of Hungary) ^d	07.94	¥30.0	100.000	5.575	4.5
Slovakia (National Bank of Slovakia)	07.94	¥25.0	100.000	6.300	5
South Korea (Korea Development Bank)	04.94	¥50.0	100.000	4.350	5
Thailand (Kingdom of Thailand) ^d	09.94	¥30.0	100.000	4.483	5
Tunisia (Central Bank of Tunisia)	02.94	¥30.0	100.450	5.850	10
Turkey (Republic of Turkey) ^e	02.94	¥75.0	100.000	5.600	9

a. The official name of the borrower goes between brackets.

b. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled ¥60,000 million.

c. The price, coupon, and maturity is the average of three bonds issued during that month, that totalled ¥110,000 million.

d. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled ¥30,000 million.

e. The price, coupon, and maturity is the average of two bonds issued during that month, that totalled ¥75,000 million.

Source: Constructed with data from World Bank(b), several issues.

Table D21. Yields on Selected Bonds Issued by LDCs, 1992^a

Borrower ^d	Launch Date	Amount	Coupon	Initial Yield	Yield Spread ^c	Maturity ^a
Argentina (Bonex 89 Trust)	02.92	\$75.0	8.50	10.34	152	7
Argentina (Bonex 89 Trust)	06.92	\$100.0	8.75	9.90	384	4
Brasil (Petrobras)	01.92	\$300.0	10.00	9.41	500	1
Brasil (Telebras)	03.92	\$90.0	10.00	10.19	450	5
Brasil (Banco do Brasil)	04.92	\$200.0	9.50	9.50	395	3
Brasil (BNDES)	04.92	\$100.0	9.25	9.70	370	3
Brasil (CVRD)	04.92	\$150.0	9.00	9.00	318	3
Brasil (Telebras)	05.92	\$100.0	10.00	10.10	365	5
Mexico (Pemex)	02.92	\$150.0	8.75	8.60	215	5
Mexico (Nafinsa)	03.92	\$100.0	9.38	9.45	205	7
Mexico (Nafinsa)	05.92	\$100.0	9.38	9.57	190	10
Thailand ^g	02.92	\$300.0	8.25	8.30	100	10
Turkey ^h	03.92	\$200.0	8.50	8.50	260	5
Turkey ^h	04.92	\$50.0	8.50	8.50	238	7
Turkey ^h	06.92	\$250.0	-	-	222	7
Uruguay ⁱ	05.92	\$100.0	8.25	8.60	275	3
Venezuela (Bariven ^j)	01.92	\$200.0	9.00	8.89	258	5

a. First-half.

b. The official name of the borrower goes between brackets.

c. Basis points above a U.S. Treasury bond of similar maturity.

d. Years.

e. Banco Nacional de Desenvolvimento Economico

f. Companhia Vale do Rio Doce

g. Under the official denomination of Kingdom of Thailand.

h. Under the official denomination of Republic of Turkey.

i. Under the official denomination of República Oriental del Uruguay

j. Subsidiary of the state-owned enterprise Petróleos de Venezuela.

Source: IMF (1992e, 62-66).

Table D22. The Baker-17^a HICs Access to the International Bond Markets, 1989-95^b

1989	1990	1991	1992	1993	1994	1995
Mexico Venezuela	Mexico Venezuela	Argentina Brazil Mexico Venezuela	Argentina Brazil Mexico Uruguay Venezuela	Argentina Brazil Colombia Mexico Philippines Uruguay Venezuela	Argentina Brazil Chile Colombia Costa Rica Jamaica Mexico Uruguay Venezuela	Argentina Venezuela
2	2	4	5	7	9	2

a. Baker-17: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ivory Coast, Ecuador, Jamaica, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela, Yugoslavia.

Source: Constructed with data from World Bank(b), several issues.

APPENDIX E

TOMBSTONES OF MILESTONE LOANS TO MEXICO IN THE INTERNATIONAL CAPITAL MARKETS*

* Loans (syndicated loans and bond issues) that stood out because of their size (jumbo loans, loans above \$1.0 billion dollars) or because they marked the closure, renewed or clearly augmented access of Mexico to the international capital markets, as described in Chapters 5 and 6. Presented in chronological order. Tombstones were generally reproduced in certain newspapers and magazines (mainly financial ones), such as *The Wall Street Journal*, the *Financial Times*, *The New York Times*, *Euromoney* and *Institutional Investor*. Usually the same loan was publicized in different publications. All the tombstones presented in this appendix come from the aforementioned sources.

This advertisement is not an offer to sell or a solicitation of an offer to buy these securities. The offering is made only by the Prospectus, copies of which may be obtained in any State only from such of the undersigned and others as may lawfully offer these securities in such State.

NEW ISSUES

\$40,000,000

Mexico

(United Mexican States)

\$25,000,000

**6 $\frac{3}{4}$ % External Sinking Fund Bonds of 1963
due July 15, 1978**

OFFERING PRICE 97.70% AND ACCRUED INTEREST

Kuhn, Loeb & Co.
Incorporated

The First Boston Corporation

Banco Nacional de Mexico, S.A. Banca Commerciale Italiana Bank of London & South America
Limited

Banque de Paris et des Pays-Bas

Deutsche Bank AG

Blyth & Co., Inc. The Dominion Securities Corporation Eastman Dillon, Union Securities & Co.

Goldman, Sachs & Co. Kidder, Peabody & Co. Lazard Frères & Co. Lehman Brothers
Incorporated

Carl M. Loeb, Rhoades & Co. Merrill Lynch, Pierce, Fenner & Smith White, Weld & Co.
Incorporated

Paribas Corporation Bache & Co. Arnhold and S. Bleichroeder, Inc. Istel, Lepercq & Co., Inc.

Model, Roland & Co. New York Hanseatic Corporation L. F. Rothschild & Co.

\$15,000,000

**6% External Serial Bonds of 1963
due July 15, 1966-1968**

**The Serial Bonds will be sold in equal amounts
of each maturity at 100% and accrued interest.**

Kuhn, Loeb & Co.
Incorporated

The First Boston Corporation

MEXICO

U.S. \$100,000,000 8-year Credit

Equally for

Nacional Financiera
S.A.

and

Banco Nacional de Obras
y Servicios Públicos S.A.

Arranged by

N. M. Rothschild & Sons Limited

Rothschild Intercontinental Bank Limited

Banco de Comercio S.A.

Banco Nacional de Mexico S.A.

and provided by

Amsterdam-Rotterdam Bank N.V.

Banco de Comercio S.A.

Banco Nacional de Mexico S.A.

Bank of Montreal

Banque Rothschild

Bayerische Hypotheken- und Wechsel-Bank

Canadian Imperial Bank of Commerce

Compagnie Luxembourgeoise de Banque S.A.
Dresdner Bank AG. Group

Finabai Société Financière

First City National Bank of Houston

International Commercial Bank Limited

The National City Bank of Cleveland

National Westminster Bank Limited

Orion Termbank Limited

Rothschild Intercontinental Bank Limited

The Royal Bank of Canada

RoyWest Banking Corporation Limited

Seattle-First National Bank

The Tokai Bank, Limited

19th April 1971

Source:

EUROMONEY May 1971

120 MILLONES DE U.S. DOLARES

un crédito de 10 años de plazo

En paridad para

NACIONAL FINANCIERA, S. A.

PETROLEOS MEXICANOS

COMISION FEDERAL DE ELECTRICIDAD

Concertado por

BANK OF AMERICA N. T. & S. A.

Con crédito suministrado por

○—→ BANK OF AMERICA N. T. & S. A.

BANQUE DE PARIS ET DES PAYS BAS, S. A.

THE TORONTO-DOMINION BANK

○—→ WESTERN AMERICAN BANK (EUROPE) LTD.

○—→ WORLD BANKING CORPORATION LIMITED

○—→ Bank of America Limited

Sumitomo Bank Ltd.

○—→ Texas Commerce Bank National Association

Union Bank of Switzerland

Diciembre 30, 1971

en

July 18, 1973



\$300,000,000

Banco Nacional de Obras y Servicios Públicos, S.A.

(a financial agency of the United Mexican States)

Twelve Year Loan

This financing was managed by

First Boston (Europe)
Limited

Kuhn, Loeb & Co.

The Long-Term Credit Bank of Japan,
Limited

Manufacturers Hanover
Limited

and provided by

Chemical Bank

Franklin National Bank

Banco di Roma Finance Co. Ltd.

Manufacturers Hanover Trust Company	Compagnie Luxembourgeoise de Banque, S.A. -Dresdner Bank Group-	United California Bank
The Bank of Tokyo, Ltd.	The Dai-Ichi Kangyo Bank, Limited	The Daiwa Bank, Limited
The Kyowa Bank Limited	The Long-Term Credit Bank of Japan, Limited	The Mitsubishi Bank, Limited
The Sanwa Bank, Limited	The Sumitomo Bank, Ltd.	The Tokai Bank, Limited
Bayerische Landesbank International S.A.	Creditanstalt-Bankverein	The First Pennsylvania Banking and Trust Company
Lavoro Bank Finance Company, N.V.	Libra Bank Limited	The Mitsui Bank, Limited
The Mitsui Trust & Banking Co., Ltd.	The Sumitomo Trust and Banking Company, Limited	
The Taiyo Bank, Ltd.	The Toyo Trust & Banking Co., Ltd.	United States National Bank of Oregon
The Yasuda Trust & Banking Company, Limited		WestLB International S.A.
Industrial National Bank of Rhode Island	Toronto Dominion Bank	Williams & Glyn's Bank Limited
Banque Canadienne Nationale	Credito Italiano, London	First National State Bank of New Jersey
The Indiana National Bank	National Newark & Essex Bank	Nomura Europe N.V.
Provident National Bank	Sterling National Bank & Trust Company of New York	The Northwestern Bank
Banque Commerciale pour l'Europe du Nord (Eurobank)	Republic National Bank of New York (International) Limited	Third National Bank in Nashville
Trade Development Bank Overseas Inc.		Bank für Gemeinwirtschaft A.G.

Agent Bank

Chemical Bank

This announcement appears as a matter of record only.

\$500,000,000

MEXICO

(United Mexican States)

Seven Year Credit Facility

The above Credit Facility has been arranged by

Kuhn, Loeb & Co.

**First Boston (Europe)
Limited**

The Dai-Ichi Kangyo Bank, Limited European Banking Company Limited The Fuji Bank, Limited

and provided by:

Allied Bank International The Dai-Ichi Kangyo Bank, Limited The Fuji Bank, Limited Mellon Bank N.A.
and Participants

Crocker National Bank Franklin National Bank Lloyds & Bolsa International Bank Limited The Toronto-Dominion Bank
Cayman Island Branch Bahamas Branch

European American Banking Corporation European Banking Company Limited Amsterdam-Rotterdam Bank NV
Nassau (Bahamas) Branch

Compagnie Financière de la Deutsche Bank AG Midland Bank Limited Banca Commerciale Italiana Limited

Banque Européenne de Crédit (BEC) Bank of Montreal Bank of Montreal (Bahamas & Caribbean) Limited

Canadian Imperial Bank of Commerce The Industrial Bank of Japan, Limited

The Long-Term Credit Bank of Japan, Limited Société Générale de Banque Creditanstalt-Bankverein

The Bank of California N.A. The Bank of Nova Scotia The Daiwa Bank, Limited

The First Pennsylvania Banking and Trust Co. Girard Trust Bank The Hokkaido Takushoku Bank, Limited
London Branch

Midland and International Banks Limited Samuel Montagu & Co. Limited National Bank of North America
Nassau, Bahamas Branch

The Nippon Fudosan Bank, Limited The Northern Trust Company The Saitama Bank, Ltd. Seattle-First National Bank
Nassau, Bahamas Branch

The Taiyo Kobe Bank, Ltd. World Banking Corporation Limited The Yasuda Trust and Banking Company, Limited

Banco de Santander Bank of British Columbia The Chuo Trust & Banking Co., Ltd.

First Wisconsin National Bank of Milwaukee The Mitsubishi Trust & Banking Corporation The Mitsui Bank, Ltd.
London Branch

Société Générale The Tokai Bank, Limited UBAF Limited

United International Bank Limited Associated Japanese Bank (International) Limited

Banque Franco Arabe d'Investissements Internationaux, Frab Bank International The Citizens and Southern National Bank

Japan International Bank Limited The Provincial Bank of Canada

Agent Bank

European American Bank and Trust Company

January 10, 1974



United Mexican States

U.S. \$800,000,000

Medium Term Credit

Managed by

Algemene Bank Nederland N.V.	Bank of America NT & SA	Bank of Montreal
The Bank of Nova Scotia International Limited	Bankers Trust International Limited	Chemical Bank Limited
Canadian Imperial Bank of Commerce	Chase Manhattan Limited	Continental Bank (Continental Illinois National Bank and Trust Company of Chicago)
Citicorp International Group	Compagnie Financière de la Deutsche Bank AG	Morgan Guaranty Trust Company of New York
First Chicago Panama S.A.	Manufacturers Hanover Limited	Swiss Bank Corporation
The Royal Bank of Canada	Security Pacific Bank	Union Bank of Switzerland
The Toronto Dominion Bank	and Co-Managed by	

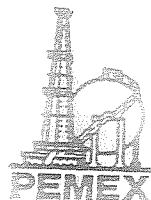
Banco de Santander	Banco Hispano Americano	BfG Luxemburg, S.A.	The Bank of New York
Banque Belge Limited (Member, Société Générale de Banque Group)	Banque Nationale de Paris	California First Bank	Kredietbank N.V.
Lloyds Bank Group	Marine Midland Bank	Midland Bank Limited	The Northern Trust Company
Republic National Bank of New York/Trade Development Bank Overseas Inc.			
Banco Nacional de Mexico, S.A./International Mexican Bank Ltd. (Banamex) (Intermex)			

With funds provided by

Algemene Bank Nederland N.V.	Bank of America NT & SA	Bank of Montreal	The Bank of Nova Scotia International Limited
Bankers Trust Company	Canadian Imperial Bank of Commerce	The Chase Manhattan Bank, N.A.	Chemical Bank Limited
Compagnie Financière de la Deutsche Bank AG	Continental Bank (Continental Illinois National Bank and Trust Company of Chicago)	Citibank, N.A.	The First National Bank of Chicago
Manufacturers Hanover Trust Company	Morgan Guaranty Trust Company of New York	The Royal Bank of Canada	Security Pacific Bank
Swiss Bank Corporation	The Toronto Dominion Bank	Union Bank of Switzerland (Panama) Inc.	
Banco Hispano Americano	Banco Nacional de Mexico, S.A./International Mexican Bank Ltd. (Banamex) (Intermex)	Banco de Santander	BfG Luxemburg, S.A.
The Bank of New York	Banque Belge Limited (Member, Société Générale de Banque Group)	Banque Nationale de Paris	California First Bank Nassau Office
Kredietbank N.V.	Lloyds Bank International Limited/Lloyds Bank California	Marine Midland Bank	Midland Bank Limited
The Northern Trust Company	Republic National Bank of New York/Trade Development Bank Overseas Inc.		
Banco de Comercio S.A. Los Angeles International Banking Branch	Banco do Brasil S.A. Los Angeles Agency	First City National Bank of Houston	Wells Fargo Bank N.A.
Internationale Genossenschaftsbank AG	National Bank of North America	J. Henry Schroder Banking Corporation	
Banco Central S.A. London Branch	Banco Pastor S.A. Paris Branch	Bank of America (New York)	Bank of Scotland
European Brazilian Bank Limited	Grundig Bank GmbH	The Industrial Bank of Japan Trust Company Nassau Branch	Canadian Commercial and Industrial Bank
Merck, Finck & Co.	Nederlandsche Middenstandsbank N.V.	Lazard Brothers & Co., Limited	Seattle-First National Bank Nassau Branch
Shanghai Commercial Bank Limited		Zentralsparkasse der Gemeinde Wien	

Agent

Bank of America NT & SA



PETROLEOS MEXICANOS

U.S. \$350,000,000

MEDIUM TERM LOAN

MANAGED BY

CHASE MANHATTAN
LIMITED

CITICORP INTERNATIONAL
GROUP

WESTDEUTSCHE LANDESBANK
GIROZENTRALE

BANK OF AMERICA NT & SA
BANQUE NATIONALE DE PARIS
SOCIETE GENERALE
CROCKER NATIONAL BANK
TORONTO DOMINION BANK

BANK OF MONTREAL
SECURITY PACIFIC BANK
CANADIAN IMPERIAL BANK OF COMMERCE
FIRST CHICAGO PANAMA, S.A.
THE ROYAL BANK OF CANADA

AND

BANCO DE COMERCIO S.A. (MEXICO)/LIBRA BANK LIMITED

CO-MANAGED BY

ALLIED BANK AND TRUST COMPANY
(BAHAMAS) LIMITED
MANUFACTURERS HANOVER LIMITED
EUROPEAN AMERICAN BANKING
CORPORATION
ROYWEST BANKING CORPORATION LIMITED

CHEMICAL BANK
FIRST NATIONAL BANK IN DALLAS
MELLON BANK, N.A.
GULF INTERNATIONAL BANK (BAHRAIN)
HESSISCHE LANDESBANK GIROZENTRALE
SWISS BANK CORPORATION

PROVIDED BY

ALLIED BANK AND TRUST COMPANY (BAHAMAS) LIMITED
AMERICAN SECURITY BANK, N.A.
ANDRESEN'S BANK INTERNATIONAL S.A.
BANCO DE COMERCIO S.A., LOS ANGELES INTERNATIONAL BANKING BRANCH
BANCO INTERNACIONAL S.A. MEXICO GROUP FINANCIERO INTERNACIONAL
BANCO NACIONAL DE MEXICO S.A. (BANAMEX)
THE BANK OF ADELAIDE
BANK OF AMERICA N.T. & SA.
BANK OF IRELAND
BANK OF MONTREAL
BANK OF THE SOUTHWEST, N.A., NASSAU BRANCH
BANQUE CONTINENTALE DU LUXEMBOURG S.A.
BANQUE INTERNATIONALE A LUXEMBOURG S.A.
BANQUE NATIONALE DE PARIS
BANQUE NORDEUROPE S.A.
CANADIAN IMPERIAL BANK OF COMMERCE
THE CHASE MANHATTAN BANK, N.A.
CHEMICAL BANK
CITIBANK, N.A.
CREDIT CHIMIQUE
CROCKER NATIONAL BANK
THE DETROIT BANK AND TRUST COMPANY
EUROPEAN AMERICAN BANKING CORPORATION
EUROPEAN ARAB BANK (BRUSSELS) S.A.
THE FIDELITY BANK, NASSAU BRANCH
FIRST NATIONAL BANK IN DALLAS
THE FIRST NATIONAL BANK OF CHICAGO, PANAMA BRANCH
THE FIRST NATIONAL BANK & TRUST COMPANY
OF OKLAHOMA CITY
FULTON NATIONAL BANK OF ATLANTA
GIRARD TRUST BANK
GULF INTERNATIONAL BANK (BAHRAIN)

HARTFORD NATIONAL BANK & TRUST COMPANY
INTERNATIONAL COMMERCIAL BANK LIMITED
IRVING TRUST COMPANY
LIBERTY NATIONAL BANK & TRUST CO.
OF OKLAHOMA CITY, NASSAU BRANCH
LIBRA BANK GROUP
MANUFACTURERS HANOVER TRUST COMPANY
MELLON BANK, N.A.
THE MERCANTILE BANK OF CANADA
MERCHANTS NATIONAL BANK AND TRUST COMPANY
NATIONAL BANK OF NORTH AMERICA
NEW ENGLAND MERCHANTS NATIONAL BANK
THE NORTHWESTERN NATIONAL BANK
OF MINNEAPOLIS, NASSAU BRANCH
PIERSON, HELDRING & PIERSON (CURACAO) N.V.
PKBANKEN INTERNATIONAL (LUXEMBOURG) S.A.
PROVIDENT NATIONAL BANK
THE ROYAL BANK OF CANADA
ROYWEST BANKING CORPORATION LIMITED
SECURITY PACIFIC BANK
STANDARD CHARTERED BANK LIMITED
SOCIETE GENERALE
SWISS BANK CORPORATION
TEXAS COMMERCE BANK, N.A.
TORONTO DOMINION BANK
UBAE-UNION DES BANQUES ARABES
ET EUROPEENNES S.A.
UNION TRUST COMPANY OF MARYLAND
UNITED VIRGINIA BANK
THE VALLEY NATIONAL BANK OF ARIZONA
WELLS FARGO BANK, N.A.
WESTLB INTERNATIONAL S.A.

AGENT

CITICORP INTERNATIONAL BANK LIMITED

Nacional Financiera S.A.



US \$425,000,000

incorporating a Tranche of

Japanese ¥12,000,000,000

Redeemable Term Loan

Managed by

Libra Bank Limited
 Banco de Comercio, S.A.
 Banque Nationale de Paris
 Kredietbank N.V.
 Lloyds Bank International Limited
 Banco Internacional, S.A.
 Barclays Bank International Limited
 The Royal Bank of Canada
 The Bank of Tokyo, Ltd.
 Chase Manhattan Limited
 Société Générale

and

Banco Nacional de Mexico S.A./International Mexican Bank Limited
 —BANAMEX— —INTERMEX—
 Banque Européenne de Crédit (BEC)/Société Générale de Banque
 Chemical Bank Merrill Lynch International Bank Limited The Mitsubishi Trust and Banking Corporation
 National Westminster Bank Group

Co-managed by

Banco Hispano Americano S.A.
 New York Agency
 The Bank of Nova Scotia International Limited
 Banque de Paris et des Pays-Bas
 The Bank of Yokohama, Ltd.

and

The Fidelity Bank

and provided by

American Express International Banking Corporation
 Banca March, S.A.
 Banco de Comercio, S.A. Mexico
 Banco Exterior de España S.A.
 Banco Hispano Americano S.A. New York Agency
 Banco Nacional de Mexico —BANAMEX—
 Banco Real S.A.
 Banco de Vizcaya S.A.
 Bank of N.T. Butterfield & Son Limited
 Bank of London & Montreal Limited Nassau
 Bank of London & South America Limited Panama Branch
 Bank of Canton of California
 Bank of Tokyo, Ltd.
 Bank Sanaye Iran London Branch
 Banque Commerciale pour l'Europe du Nord (Eurobank)
 Banque Nationale de Paris
 Breisach Pinschof Schoeller Bankkommanditgesellschaft
 Chemical Bank
 Compañía Financiera y Comercial "Panameris" S.A. Panama (Sudameris Banking Group)
 The Development Bank of Singapore Ltd.
 American National Bank & Trust Company of Chicago
 Banca Commerciale Italiana London Branch
 Banco Internacional, S.A. Mexico
 Bank Bumiputra Malaysia Berhad London Branch
 The Bank of East Asia, Limited
 The Bank of Nova Scotia International Limited
 Banque Belge pour l'Industrie S.A.
 Banque Européenne de Tokyo S.A.
 Barclays Bank International Limited
 The Chase Manhattan Bank, N.A.
 Credit Suisse White Weld Limited
 European Brazilian Bank Limited —EUROBRAZ—
 The First National Bank & Trust Company of Oklahoma City
 International Commercial Bank Limited
 Internationale Bank für Aussenhandel A.G.
 First Jersey National Bank
 Houston National Bank Nassau Branch
 International Bank of Singapore Limited
 International Westminister Bank Limited
 Interunion-Banque
 Kredietbank N.V.
 Libra Bank Limited
 Lincoln First International
 Lloyds Bank International Limited
 Merrill Lynch International Bank Limited
 The Nippon Trust and Banking Company Limited
 Nordic Asia Limited
 Northland Bank
 Oberbank Linz, Austria
 Overseas Union Bank Limited London Branch
 Pan Asian Finance Limited
 The Royal Bank of Canada Group
 RoyWest Banking Corporation Limited
 PKBanken International (Luxembourg) S.A.
 Société Générale
 Société Générale de Banque
 Sofia Limited
 Singapore—Japan Merchant Bank Limited
 The Taiyo Kobe Bank Ltd.
 UBAF Arab American Bank
 UBAF Bank Limited
 Standard Chartered Bank Limited
 United Bank of Denver N.A.
 United International Bank Limited
 Union Trust Company of Maryland
 United States Trust Company of New York
 Williams & Glyn's Bank Limited

Dollar Paying Agent

Lloyds Bank International Limited

Yen Paying Agent

The Bank of Tokyo, Ltd.

General Agent

Libra Bank Limited

\$1,200,000,000

United Mexican States

Medium-term Euro-dollar loan

Managed by:

Abu Dhabi Investment Company Amsterdam—Rotterdam Bank N.V. Banco do Brasil S.A. Bank für Gemeinwirtschaft Aktiengesellschaft Bank of America NT & SA Bank of Montreal
The Bank of Nova Scotia International Limited The Bank of Tokyo, Ltd. Banque Nationale de Paris Barclays Bank International Limited Bayerische Landesbank Girozentrale
Canadian Imperial Bank of Commerce Chase Manhattan Limited Chemical Bank Citicorp International Group Commerzbank Aktiengesellschaft
Compagnie Financière de la Deutsche Bank AG DG BANK Deutsche Genossenschaftsbank Dresdner Bank Aktiengesellschaft First National Boston Limited Grindlay Brandts Limited
The Industrial Bank of Japan, Limited Lloyds Bank International Limited The Long-Term Credit Bank of Japan, Limited Manufacturers Hanover Limited
Midland Bank Limited Morgan Guaranty Trust Company of New York National Westminster Bank Ltd. Société Générale de Banque S.A.—Generale Bankmaatschappij N.V.
Swiss Bank Corporation Toronto Dominion Bank Union Bank of Switzerland Westdeutsche Landesbank Girozentrale

Co-managed by:

Banque Européenne de Crédit (BEC) Bayerische Hypotheken-und Wechsel-Bank First Chicago Panama S.A. Irving Trust Company Security Pacific Bank United California Bank
Banco de Comercio SA (Mexico) Banco Nacional de México-BANAMEX Multibanco Comermex Banco Internacional, S.A. (Mexico)
Banca Serfin SA Institución de Banca Múltiple Sociedad Mexicana de Crédito Industrial, S.A.

Funds provided by:

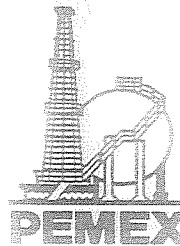
Abu Dhabi Investment Company Amsterdam—Rotterdam Bank N.V. Banco do Brasil S.A. BIG Luxemburg Bank of America NT & SA Bank of Montreal
The Bank of Nova Scotia International Limited The Bank of Tokyo, Ltd. Banque Nationale de Paris Barclays Bank International Limited
Bayerische Landesbank International S.A. Canadian Imperial Bank of Commerce The Chase Manhattan Bank, N.A. Chemical Bank Citibank, N.A.
Commerzbank International S.A. Compagnie Financière de la Deutsche Bank AG DG BANK Deutsche Genossenschaftsbank Dresdner Bank Aktiengesellschaft
The First National Bank of Boston Grindlays Bank Limited The Industrial Bank of Japan, Limited Lloyds Bank International Limited
The Long-Term Credit Bank of Japan, Limited Manufacturers Hanover Trust Company Midland Bank Limited Morgan Guaranty Trust Company of New York
International Westminster Bank Ltd. Société Générale de Banque S.A.—Generale Bankmaatschappij N.V. Swiss Bank Corporation (Overseas) S.A., Panama
Toronto Dominion Bank Union Bank of Switzerland (Panama) Inc. WestLB International S.A. Banco de Comercio SA (Mexico)
Banco Nacional de México-BANAMEX Banque Européenne de Crédit (BEC) Bayerische Hypotheken-und Wechsel-Bank The First National Bank of Chicago
Irving Trust Company Security Pacific Bank United California Bank Algemene Bank Nederland N.V. Banco Internacional, S.A. (Mexico)
The Bank of New York The Bank of Yokohama Limited Banque de Paris et des Pays-Bas Brazilian American Merchant Bank Mellon Bank N.A.
The Mitsubishi Bank Limited Multibanco Comermex The Sanwa Bank, Limited The Tokai Bank, Limited The Mitsui Bank, Limited
European American Banking Corporation Banco de Santander, S.A. Banca Serfin SA Institución de Banca Múltiple Bank Bumiputra Malaysia Berhad
The Dai-ichi Kangyo Bank Ltd. The Detroit Bank and Trust Company First Pennsylvania Bank N.A. The Fuji Bank, Limited
International Commercial Bank Limited Lloyds Bank California The Northern Trust Company The Saitama Bank, Ltd.
Sociedad Mexicana de Crédito Industrial, S.A. The Yasuda Trust and Banking Co., Ltd. Banque Européenne de Tokyo S.A. The Toyo Trust and Banking Co., Ltd.
Wells Fargo Bank N.A. Republic National Bank of New York Trade Development Bank Overseas Inc. The Hokkaido Takushoku Bank Ltd.
The Kyowa Bank Ltd. LBI Finance (Hong Kong) Limited New England Merchants National Bank Qatar National Bank S.A.Q.
American National Bank and Trust Company of Chicago Banco de Bilbao Banco Hispano Americano Banco Urquijo SA Banco de Vizcaya
Bank of British Columbia Bank of London and Montreal Limited Bank of London and South America Limited Bank Sanaye Iran Bank of Scotland
Banque Européenne pour l'Amérique Latine (B.E.A.L.) S.A. Banque Française du Commerce Extérieur (B.F.C.E.) Banque Scandinave en Suisse
The Chuo Trust and Banking Company Limited The Connecticut Bank and Trust Company County Bank Limited Crédit du Nord Daiwa Europe N.V.
Euro-Latinamerican Bank Limited-EULABANK- Euro-Pacific Finance Corporation Limited F. van Lanschot Bankiers (Curaçao) N.V.
First National Bank of Commerce New Orleans, LA. Hartford National Bank and Trust Company Internationale Genossenschaftsbank AG
Iran Overseas Investment Bank Limited Kuwait Pacific Finance Company Limited Lazard Brothers & Co., Limited
Lloyds Bank International Limited Merck, Finck & Co. Morgan Grenfell & Co. Limited National Bank of Abu Dhabi
The Nikko (Luxembourg) S.A. Nomura Europe N.V. Northland Bank, Calgary, Alberta, Canada The Royal Bank of Scotland Limited
Singapore Nomura Merchant Banking Limited Solis Limited The Sumitomo Trust and Banking Co., Ltd. The Taiyo Kobe Bank Ltd.
Texas Commerce Bank Union des Banques Arabes et Européennes-U.B.A.E.-Société Anonyme United States Trust Company of New York

Agent:

Morgan Guaranty Trust Company of New York

This announcement appears as a matter of record only.

November 1977



Petróleos Mexicanos

\$1,000,000,000

Term Credit Facility

Managed by:

BankAmerica International Group		Bank of Montreal
The Bank of Tokyo, Ltd.		Bankers Trust International Limited
Canadian Imperial Bank of Commerce		Chemical Bank International Limited
Citicorp International Group		European American Bank and Trust Company
The Industrial Bank of Japan, Limited		Lloyds Bank International Limited
Manufacturers Hanover Limited		National Westminster Bank Limited
The Royal Bank of Canada	Swiss Bank Corporation	Westdeutsche Landesbank Girozentrale

and

Commerzbank Aktiengesellschaft	Crédit Lyonnais	Midland Bank Limited
Banco Nacional de México S.A.—BANAMEX		Multibanco Comermex S.A.

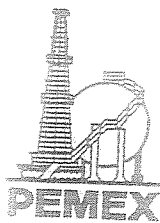
Co-Managed by:

The Bank of Yokohama Limited	Bayerische Hypotheken-und Wechsel-Bank	DG BANK Deutsche Genossenschaftsbank
The Fuji Bank, Limited	The Mitsubishi Bank, Limited	Morgan Guaranty Trust Company of New York
		NMKB Finance Cy.(Curaçao) N.V.
The Sanwa Bank Limited	Standard Chartered Merchant Bank Limited	Union Bank of Switzerland
		Wells Fargo Limited

Provided by:

Bank of America NT & SA	Bank of Montreal	The Bank of Tokyo, Ltd.	Bankers Trust Company	Canadian Imperial Bank of Commerce	Chemical Bank
Citibank, N.A.	European American Bank and Trust Company	The Industrial Bank of Japan, Limited	Lloyds Bank International Limited (Chicago)		
Manufacturers Hanover Trust Company	International Westminster Bank Ltd.	The Royal Bank of Canada	Swiss Bank Corporation S.A. Panama (Overseas)		
WestLB International S.A.	Commerzbank Aktiengesellschaft (New York Branch)	Crédit Lyonnais	Midland Bank Limited	The Bank of Yokohama Limited	
Bayerische Hypotheken-und Wechsel-Bank (Cayman Islands Branch)	DG BANK Deutsche Genossenschaftsbank (Cayman Islands Branch)	The Fuji Bank, Limited	The Mitsubishi Bank, Limited		
Morgan Guaranty Trust Company of New York	NMKB Finance Cy.(Curaçao) N.V.	The Sanwa Bank Limited	Standard Chartered Bank Limited		
Union Bank of Switzerland	Wells Fargo Limited	Banco Nacional de México S.A.—BANAMEX	Multibanco Comermex S.A.		
Banque Nationale de Paris (San Francisco Agency)	BfG Luxemburg	Toronto Dominion Bank	Banco Internacional, S.A. (Mexico)	Crocker National Bank	
International Energy Bank Limited	Irving Trust Company	Mellon Bank, N.A.	The Mercantile Bank of Canada	The Mitsui Bank Limited (New York Branch)	
The Mitsui Trust and Banking Co., Ltd. (New York Branch)	The Saitama Bank, Ltd.	The Toyo Trust and Banking Company Limited	The Daiwa Bank, Limited	Bank of Scotland	
Banque Canadienne Nationale (Bahamas) Limited	Crédit du Nord	F. Van Lanschot Bankiers	First City National Bank of Houston		
Hartford National Bank and Trust Company	Internationale Genossenschaftsbank AG	Iran Overseas Investment Bank Limited	The Kyowa Bank, Ltd.		
Kyowa Finance (Hong Kong) Limited	Norddeutsche Landesbank International S.A.	Saitama-Union International (Hong Kong) Limited	SOFIS Limited		
Sumitomo and East Asia Limited	The Sumitomo Trust and Banking Co., Ltd.	Texas Commerce International Bank Ltd.			
The Yasuda Trust and Banking Co., Ltd.	Coutts and Co.	The Nippon Trust and Banking Co., Ltd.			

April 1978.



Petroleos Mexicanos

U.S. \$2,500,000,000

Bankers' Acceptance Facility

Arranged by:

BankAmerica International Group

Managed and Provided by:

Bank of America NT & SA
The Bank of Nova Scotia
Banque Nationale de Paris
Chemical Bank
The Dai-ichi Kangyo Bank, Limited
The Industrial Bank of Japan, Limited
The Long-Term Credit Bank of Japan, Limited
The Mitsubishi Bank, Limited
National Westminster Bank Limited
Société Générale
The Tokai Bank, Limited

Bank of Montreal
The Bank of Tokyo, Ltd.
Canadian Imperial Bank of Commerce
Credit Lyonnais
Deutsche Bank AG
Irving Trust Company
Manufacturers Hanover Trust Company
Morgan Guaranty International Bank of Miami
The Sanwa Bank, Limited
Swiss Bank Corporation
Westdeutsche Landesbank Girozentrale

Co-Managed and Provided by:

Barclays Bank International Limited
Pittsburgh National Bank
and
Banca Nazionale del Lavoro
Citicorp International Group
The Fuji Bank, Limited
The Mitsui Bank Limited
The Sumitomo Bank, Limited
United California Bank

The First National Bank of Chicago

The Bank of Yokohama, Ltd.
Dresdner Bank AG
Marine Midland Bank
Security Pacific Bank
Union Bank of Switzerland
The Yasuda Trust and Banking Co. Ltd.

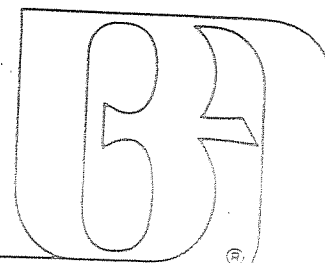
Further Provided by:

Banco Nacional de Mexico, S.A. - Banamex -
Algemene Bank Nederland NV
Banca Commerciale Italiana
Banco Real SA
Banque de Paris et des Pays-Bas
Credit Commercial de France
European American Bank
First National Bank in Dallas
Manufacturers National Bank of Detroit
Mellon Bank NA
National Bank of North America
Provident National Bank
Republic National Bank of New York
The Toyo Trust and Banking Company, Limited
United States National Bank of Oregon

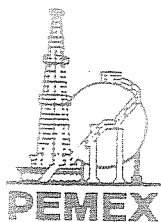
Bancomer, S.A.
American Express International Banking Corporation
Banco di Roma
The Bank of New York
The Cleveland Trust Company
Credito Italiano
First City National Bank of Houston
First Pennsylvania Bank N.A.
Maryland National Bank
National Bank of Detroit
The Nippon Credit Bank, Ltd.
Republic National Bank of Dallas
Texas Commerce Bank N.A.
Union Bank, California

Agent

BANK OF AMERICA^{NT & SA}



This announcement appears as a matter of record only, June, 1981.



Petroleos Mexicanos

U.S. \$4,000,000,000

Bankers' Acceptance Facility

Arranged by:

BankAmerica International Group

Managed and Provided by:

Banco Nacional de Mexico, SA — BANAMEX
Bank of Montreal
The Bank of Tokyo Limited
Canadian Imperial Bank of Commerce
Credit Lyonnais
Deutsche Bank AG — New York Branch
The Long-Term Credit Bank of Japan, Limited
The Mitsubishi Bank Limited
The Sanwa Bank, Limited
The Tokai Bank Limited

Bank of America NT & SA
The Bank of Nova Scotia
Barclays Bank International Limited
Chemical Bank International Group
The Dai-Ichi Kangyo Bank, Limited
The Industrial Bank of Japan, Limited
Manufacturers Hanover Merchant Banking Group
Morgan Guaranty International Bank
Société Générale
Westdeutsche Landesbank Girozentrale

Co-Managed and Provided by:

Banque Nationale de Paris — New York Branch
Union Bank of Switzerland
Bancomer, S.A.
Credit Suisse
The First National Bank of Chicago
Marine Midland Bank NA
National Westminster Bank Limited
Pittsburgh National Bank
Standard Chartered Bank Group
The Yasuda Trust and Banking Co., Ltd., New York Branch

Irving Trust Company
Swiss Bank Corporation — New York Branch
The Bank of Yokohama, Ltd.
Dresdner Bank AG — New York Branch
The Fuji Bank Limited — Los Angeles Agency
The Mitsui Bank, Limited
The Nippon Credit Bank, Ltd.
Security Pacific Bank
The Sumitomo Bank, Limited

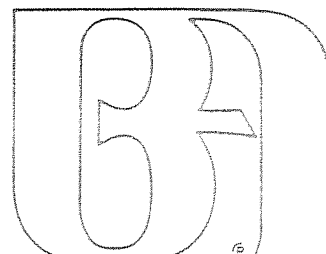
Further Provided by:

Banca Nazionale del Lavoro — New York Branch
First Interstate Bank of California
American Express International Banking Corporation
The Bank of New York
Credito Italiano — New York Branch
First City National Bank of Houston
Manufacturers National Bank of Detroit
The National Bank of Australasia Ltd. — New York Branch
Republic National Bank of New York
Toronto Dominion Bank
Union Bank
United States National Bank of Oregon
The Valley National Bank of Arizona
The Chuo Trust and Banking Company, Limited
The Hokkaido Takushoku Bank, Ltd.
The Kyowa Bank Ltd.
The Mitsui Trust and Banking Co., Ltd.
The Saitama Bank, Los Angeles Agency
The Sumitomo Trust and Banking Co., Ltd. — L.A. Agency
Banca Commerciale Italiana — New York Branch
First Pennsylvania Bank NA
Mellon Bank NA

Citibank N.A.
Algemene Bank Nederland N.V.
AmeriTrust Company
Banque de Paris et des Pays-Bas
European American Banking Corporation
First National Bank in Dallas
Maryland National Bank
National Bank of Detroit
Texas Commerce Bank N.A.
The Toyo Trust and Banking Co., Ltd.
Union Bank of Bavaria
United Virginia Bank
Virginia National Bank
The Daiwa Bank Limited
The Hokuriko Bank Ltd.
The Mitsubishi Trust and Banking Corporation — New York Branch
The Taiyo Kobe Bank, Ltd. — New York Branch
Credit Commercial de France — New York Branch
Grindlays Bank Limited, New York Agency
National Bank of North America
Provident National Bank

Agent

BANK OF AMERICA



Inspection de l'Agence Nationale

U.S. \$1,000,000.000
CREDIT FACILITY

2.0000 **Aluminum**

THE BANK OF NOVA SCOTIA GROUP
BANQUE NATIONALE DE PARIS
THE DAI-ICHI KANGYO BANK, LIMITED
SOCIETE GENERALE
TORONTO DOMINION INTERNATIONAL BANK LIMITED

ရင်းနှီးမြှုပ်နှံမှုများ

DRESNER BANK AG
INTERVEX INTERNATIONAL BANK LIMITED
LIBRA BANK LIMITED
NATIONAL BANK OF CANADA
THE KYOWA BANK LTD
THE TAIYOKO BANK LTD

24

ARAB BANK LIMITED
BANCO DE YZCAYA CASSAB BANK -
BANQUE DE L'INDOCHINE ET DE SUEZ
COMMERZBANK AKTIENGESellschaft
NORTH CAROLINA NATIONAL BANK
THE SUMITOMO TRUST BANKING CO., LTD

Cop. Microgaster

AMERICAN SECURITY BANK N A
BANK OF NEW SOUTH WALES
BANQUE INTERNATIONALE A LUXEMBOURG S A
THE CMC TRUST AND BANKING COMPANY LIMITED
CREDIT INDUSTRIEL ET COMMERCIAL
GULF BAY BANK E C
LONDON FIRST BANK NA
NORC AMERICAN BANKING CORPORATION

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[illegible]

Abstract

BANK OF AMERICA

This announcement appears as a matter of record only.



PETROLEOS MEXICANOS

U.S. \$2,000,000,000 Medium Term Loan

Lead Managed by

BANCO DE VIZCAYA
BANCO NACIONAL DE MEXICO, S. A.
BANAMEX
THE BANK OF TOKYO, LTD.
BARCLAYS BANK GROUP
CITICORP INTERNATIONAL GROUP

BANCO DI ROMA
BANKAMERICA INTERNATIONAL GROUP
BANQUE NATIONALE DE PARIS
CHASE MERCHANT BANKING GROUP
COMMERZBANK
ARTIENGESSELLSCHAFT

BANCO EXTERIOR GROUP
THE BANK OF NOVA SCOTIA GROUP
BANQUE DE PARIS ET DES PAYS BAS
CHEMICAL BANK INTERNATIONAL GROUP
CREDIT LYONNAIS

CREDIT SUISSE
FIRST INTERSTATE BANK GROUP
MANUFACTURERS HANOVER MERCHANT BANKING GROUP
NATIONAL BANK OF CANADA
THE SUMITOMO TRUST AND BANKING CO., LIMITED
CREDITANSTALT-BANKVEREIN
MELLON BANK, N.A.
ORION ROYAL BANK LIMITED
SOCIETE GENERALE
SWISS BANK CORPORATION INTERNATIONAL LIMITED

Managed by

BANCA COMMERCIALE ITALIANA
THE MITSUBISHI TRUST AND BANKING CORPORATION
PANAMA BRANCH

EUROPEAN AMERICAN BANK

LIBRA BANK LIMITED
THE MITSUI TRUST AND BANKING CO., LTD.

REPUBLIC NATIONAL BANK OF NEW YORK/ TRADE DEVELOPMENT BANK OVERSEAS INC.

Co-Managed by

CREDIT COMMERCIAL DE FRANCE

ALLIED IRISH BANKS LIMITED
NEW YORK BRANCH

AMERITRUST COMPANY

BANCO DO ESTADO DE SAO PAULO S. A.
NEW YORK AGENCY

BANCO MEXICANO SOMEX, S. A.

BANCO URQUIJO, S. A.
GRAND CAYMAN BRANCH

THE BANK OF NEW YORK

GIRARD BANK

IRVING TRUST COMPANY

PITTSBURGH NATIONAL BANK

RAINIER NATIONAL BANK

TEXAS COMMERCE BANK NATIONAL ASSOCIATION

VEREINS-UND WESTBANK INTERNATIONALE S.A.

ZENTRALSARKASSE UND KOMMERZIALBANK WIEN

Funds Provided by

BANCO DE VIZCAYA S.A. BANCO DI ROMA IBF - NEW YORK BANCO EXTERIOR GROUP BANCO NACIONAL DE MEXICO, S.A. BANK OF AMERICA NT AND SA
THE BANK OF NOVA SCOTIA INTERNATIONAL LIMITED THE BANK OF TOKYO, LTD. BANQUE DE PARIS ET DES PAYS BAS BARCLAYS BANK INTERNATIONAL LIMITED THE CHASE MANHATTAN BANK, N.A.
CHEMICAL BANK CITIBANK, N.A. COMMERZBANK CREDIT SUISSE CREDITANSTALT-BANKVEREIN THE DAI-ICHI KANGYO BANK, LIMITED THE INDUSTRIAL BANK OF JAPAN, LIMITED
MANUFACTURERS HANOVER TRUST COMPANY MELLON BANK, N.A. MIDLAND BANK PLC NATIONAL BANK OF CANADA THE ROYAL BANK OF CANADA (BARBADOS) LIMITED SOCIETE GENERALE
SWISS BANK CORPORATION NATIONAL WESTMINSTER BANK PLC THE SUMITOMO TRUST AND BANKING CO., LTD. FIRST INTERSTATE BANK OF CALIFORNIA BANCA COMMERCIALE ITALIANA
BANQUE NATIONALE DE PARIS CREDIT LYONNAIS (NEW YORK BRANCH) CREDIT LYONNAIS (PANAMA BRANCH)
EUROPEAN AMERICAN BANKING CORPORATION LIBRA BANK LIMITED THE MITSUBISHI TRUST AND BANKING CORPORATION THE MITSUI TRUST AND BANKING CO., LTD.
ALLIED IRISH BANKS LIMITED AMERITRUST COMPANY BANCO DO ESTADO DE SAO PAULO S.A. BANCO MEXICANO SOMEX, S.A. BANCO URQUIJO, S.A. THE BANK OF NEW YORK
GIRARD BANK IRVING TRUST COMPANY NEW YORK PITTSBURGH NATIONAL BANK RAINIER NATIONAL BANK TEXAS COMMERCE BANK NATIONAL ASSOCIATION
VEREINS-UND WESTBANK INTERNATIONALE S.A. ZENTRALSARKASSE UND KOMMERZIALBANK WIEN REPUBLIC NATIONAL BANK OF NEW YORK TRADE DEVELOPMENT BANK OVERSEAS, INC.
BANCA NAZIONALE DEL LAVORO BANCO HISPANO AMERICANO S.A./GRAND CAYMAN BRANCH BANCO INTERNACIONAL S.A. MEXICO BANCO REAL S.A. BANCO RIO DE LA PLATA S.A.
BANK OF THE SOUTHWEST N.A. HOUSTON CREDIT COMMERCIAL DE FRANCE CREDIT COMMERCIAL DE FRANCE - NEW YORK COUNTY BANK LIMITED
THE DETROIT BANK AND TRUST COMPANY FIRST INTERSTATE BANK OF OREGON, N.A. FIRST UNION NATIONAL BANK THE HOKKAIDO TAKUSHOKU BANK LTD
THE HOKORIKO BANK, LTD. MERCANTILE TRUST COMPANY, N.A. THE SUMITOMO TRUST AND BANKING CO., LTD. TOKAI ASIA LTD. SUN BANK, N.A. ORLANDO, FLORIDA
FIRST INTERSTATE BANK OF ARIZONA, N.A. CREDIT DU NORD AMERICAN NATIONAL BANK AND TRUST OF NEW JERSEY BANERJ-BANCO DO ESTADO DO RIO DE JANEIRO S.A.
BANCO DE BOGOTA BANCO DE PONCE BANCO DO COMERCIO E INDUSTRIA DE SAO PAULO S.A. BANCO ITAU S.A. NEW YORK AGENCY BANK OF IRELAND
BANK OF VIRGINIA BANQUE ROTHSCHILD CLYDESDALE BANK PLC THE EQUITABLE TRUST COMPANY FIRST NATIONAL BANK OF MARYLAND
FIRST NATIONAL STATE BANK OF NEW JERSEY FIRST PENNSYLVANIA BANK, N.A. THE PORT WORTH NATIONAL BANK THE HUNTINGTON NATIONAL BANK JAPAN INTERNATIONAL BANK LIMITED
LTCB (SCHWEIZ) AG MIDLANTIC NATIONAL BANK NORDIC AMERICAN BANKING CORPORATION PRIVATEBANKEN LIMITED THE SAITAMA BANK LTD. LOS ANGELES AGENCY
THE SUMITOMO BANK, LIMITED UBAF ARAB AMERICAN BANK UNITED JERSEY BANK WINTERS NATIONAL BANK AND TRUST COMPANY MICHIGAN NATIONAL BANK
BANCO DE LA PROVINCIA DE BUENOS AIRES BANCO PASTOR, S.A. HARTFORD NATIONAL BANK AND TRUST COMPANY MERCHANTS NATIONAL BANK & TRUST COMPANY OF INDIANAPOLIS
SHAWMUT BANK OF BOSTON, N.A. THE TOYO TRUST AND BANKING CO., LTD. BAER AMERICAN BANKING CORPORATION BANCO CAFETERO, S.A. (PANAMA)
BANCO DI SANTO SPIRITO (LUXEMBOURG) BANK FEUR ARBEIT UND WIRTSCHAFT AG THE BOATMEN'S NATIONAL BANK OF ST. LOUIS CENTRAL PENN NATIONAL BANK
DEN NORSKE CREDITBANK (LUXEMBOURG) S.A. FIRST AND MERCHANTS NATIONAL BANK THE FIRST INTERNATIONAL BANK OF ISRAEL LTD.
HAWAII FINANCIAL CORPORATION (HONG KONG) LTD NATIONAL CITY BANK OF MINNEAPOLIS OLD STONE BANK J. HENRY SCHROEDER BANK AND TRUST COMPANY
SPARSBANKEN OSLO AKERSHUS UNIBANCO-UNIAO DE BANCOS BRASILEIROS S.A. ARAB TURKISH BANK BANCO CAFETERO INTERNATIONAL CORPORATION
BANCO DE CREDITO DEL PERU INTERNATIONAL BANCO DE PROGRESO, S.A., MADRID BANCO LATINOAMERICANO DE EXPORTACIONES BANQUE VERNES ET COMMERCIALE DE PARIS
FIRST JERSEY NATIONAL BANK KUWAIT-FRENCH BANK KUWAIT PACIFIC FINANCE COMPANY LIMITED LONDON INTERSTATE BANK LIMITED
MARINE NATIONAL EXCHANGE BANK OF MILWAUKEE OLD KENT BANK AND TRUST COMPANY UNION PLANTERS NATIONAL BANK OF MEMPHIS

CITIBANK, N.A.



Nacional Financiera, S. A.

U.S. \$1,200,000,000
Medium Term Loan

Lead Managed by

ARAB BANKING CORPORATION (ABC) ARAB LATIN AMERICAN BANK BANCOMER S.A.
BANCO HISPANO AMERICANO, S.A. ARLABANK
CHEMICAL BANK INTERNATIONAL GROUP THE BANK OF YOKOHAMA, LTD.
COMPAGNIE LUXEMBOURGEOISE DE LA DRESNER BANK A.G. FIRST CHICAGO PANAMA, S.A.
—DRESNER BANK INTERNATIONAL—
GULF INTERNATIONAL BANK B.S.C. LIBRA BANK LIMITED
MANUFACTURERS HANOVER MERCHANT BANKING GROUP
MIDLAND BANK INTERNATIONAL THE SANWA BANK, LIMITED
SOCIETE GENERALE THE SUMITOMO BANK, LIMITED

Co-Lead Managed by

BANCA NAZIONALE DEL LAVORO BANCO INTERNACIONAL S.A. (MEXICO) BANCO POPULAR ESPAÑOL, S.A.
COMMERCIAL CREDIT INTERNATIONAL BANKING CORPORATION FIRST INTERSTATE BANK OF CALIFORNIA
THE HOKKAIDO TAKUSHOKU BANK, LIMITED IRVING TRUST COMPANY LIBYAN ARAB FOREIGN BANK
THE NIPPON CREDIT BANK, LTD. REPUBLICBANK DALLAS, N.A. AL—UBAF GROUP

Managed by

ARAB AFRICAN INTERNATIONAL BANK/AL BAHRAIN ARAB AFRICAN BANK (E.C.) FIRST NATIONAL BANK OF MINNEAPOLIS
THE SAUDI NATIONAL COMMERCIAL BANK—OBU BAHRAIN THE MITSUI TRUST AND BANKING CO., LTD.
THE TAIYO KOBE BANK, LIMITED

Co-Managed by

THE HOKURIKU BANK, LTD. THE BANK OF CALIFORNIA, N.A. BANQUE DE LA SOCIETE FINANCIERE EUROPEENNE
FIRST PENNSYLVANIA BANK, N.A. GULF RIYAD BANK, E.C. INDUSTRIAL MULTINATIONAL INVESTMENTS LIMITED, JERSEY
ISTITUTO BANCARIO SAN PAOLO DI TORINO
(NEW YORK AGENCY)

Provided by

ARAB BANKING CORPORATION (ABC) ARAB LATIN AMERICAN BANK BANCOMER S.A., NEW YORK AGENCY BANCO HISPANO AMERICANO, PARIS BRANCH
THE BANK OF YOKOHAMA, LTD. CHEMICAL BANK COMPAGNIE LUXEMBOURGEOISE DE LA DRESNER BANK A.G. THE FIRST NATIONAL BANK OF CHICAGO
—DRESNER BANK INTERNATIONAL—
GULF INTERNATIONAL BANK B.S.C. LIBRA BANK LIMITED MANUFACTURERS HANOVER TRUST COMPANY MIDLAND BANK PLC
THE SANWA BANK, LIMITED SOCIETE GENERALE PANAMA BRANCH THE SUMITOMO BANK, LIMITED BANCA NAZIONALE DEL LAVORO—NEW YORK BRANCH
BANCO INTERNACIONAL, S.A. GRAND CAYMAN BRANCH COMMERCIAL CREDIT INTERNATIONAL BANKING CORPORATION FIRST INTERSTATE BANK OF CALIFORNIA
THE HOKKAIDO TAKUSHOKU BANK, LIMITED IRVING TRUST COMPANY LIBYAN ARAB FOREIGN BANK THE NIPPON CREDIT BANK, LTD., LOS ANGELES AGENCY
REPUBLICBANK DALLAS, N.A. FIRST NATIONAL BANK OF MINNEAPOLIS THE MITSUI TRUST AND BANKING CO., LTD.
THE SAUDI NATIONAL COMMERCIAL BANK—OBU BAHRAIN THE TAIYO KOBE BANK, LIMITED BANCO POPULAR ESPAÑOL, S.A.
THE HOKURIKU BANK, LTD. AL BAHRAIN ARAB AFRICAN BANK (E.C.)—BAHRAIN ARAB AFRICAN INTERNATIONAL BANK—NEW YORK AGENCY
THE BANK OF CALIFORNIA, N.A. BANQUE DE LA SOCIETE FINANCIERE EUROPEENNE FIRST PENNSYLVANIA BANK, N.A. GULF RIYAD BANK, E.C.
SFE GROUP
INDUSTRIAL MULTINATIONAL INVESTMENTS LIMITED, JERSEY ISTITUTO BANCARIO SAN PAOLO DI TORINO (NEW YORK AGENCY) BANCO DE BOGOTA TRUST COMPANY
UBAF BANK LIMITED UNION DE BANQUES ARABES ET FRANÇAISES—U.B.A.F. ASSOCIATED JAPANESE BANK (INTERNATIONAL) LIMITED
BANCA NAZIONALE DELL'AGRICOLTURA—NEW YORK BRANCH BANCO CENTRAL CORP. (MEMBER OF BANCO CENTRAL S.A. GROUP) BANCO DO ESTADO DE SÃO PAULO S.A.
BANK OF BRITISH COLUMBIA BIRMINGHAM TRUST NATIONAL BANK CENTER BANK NATIONAL ASSOCIATION CITY NATIONAL BANK OF DETROIT
FRAB BANK INTERNATIONAL HARTFORD NATIONAL BANK AND TRUST COMPANY THE INDUSTRIAL BANK OF JAPAN, LIMITED
MANUFACTURERS NATIONAL BANK OF DETROIT MERCHANTS NATIONAL BANK & TRUST COMPANY OF INDIANAPOLIS—NASSAU BRANCH OLD STONE BANK
SAUDI EUROPEAN BANK S.A. J. HENRY SCHRODER BANK & TRUST COMPANY TRUST COMPANY BANK UBAF ARAB AMERICAN BANK NEW YORK
UNITED VIRGINIA BANK BANCO DE ANDALUCIA S.A. BANCO PORTUGUES DO ATLANTICO—LONDON BRANCH
DEB—DAIWA SECURITIES INTERNATIONAL LIMITED DUBAI BANK LIMITED, NEW YORK BRANCH UBAE ARAB GERMAN BANK
SOCIETE ANONYME
SEARS BANK AND TRUST CO. UBAE ARAB ITALIAN BANK S.P.A. (ROME) THE ASHIKAGA BANK, LTD. BANCO DE CASTILLA, S.A. BANCO DE GALICIA, S.A.
BANCO SAUDI ESPAÑOL, S.A. BANK FÜR ARBEIT UND WIRTSCHAFT AG THE BOATMEN'S NATIONAL BANK OF ST. LOUIS
CAJA DE AHORROS DE ZARAGOZA, ARAGON Y RIOJA "CAZAR" DEN NORSKE CREDITBANK (LUXEMBOURG) S.A. 1ST SOURCE BANK THE JOYO BANK, LTD.
PKBANKEN INTERNATIONAL (LUXEMBOURG) S.A. UBAI INTERNATIONAL LIMITED (H.K.) BANCO AMBROSIANO OVERSEAS LIMITED KUWAITI—FRENCH BANK
ARAB TURKISH BANK BANCO DE CREDITO BALEAR, S.A. BANCO DE VASCONIA, S.A. BANCO ESPIRITO SANTO E COMERCIAL DE LISBOA, LONDON BRANCH
BANCO HISPANO INDUSTRIAL BANCO MERCANTIL DE TARRAGONA, S.A. BANCO PINTO & SOTTO MAYOR BANCO SIMEON, S.A.
CAIXA DE PENSÕES, "LA CAIXA" FIRST & MERCHANTS NATIONAL BANK HAWAII FINANCIAL CORPORATION (HONG KONG) LIMITED NEW JERSEY BANK, N.A.
THE SHIZUKA BANK LTD. THE SOUTH CAROLINA NATIONAL BANK UNION BANK AND TRUST CO., N.A.
(A WHOLLY OWNED SUBSIDIARY OF BANK OF HAWAII)

Agent Bank

MANUFACTURERS HANOVER LIMITED

...many people took as a sign of an easier monetary stance. But the markets were not wholly convinced. The Fed's actions could just as easily have been designed to meet seasonal needs and soothe the markets in the wake of the Penn Square bank failure, whose repercussions were still jangling.

On Friday, the Fed did a particularly aggressive round of repurchases which helped push the Fed funds rate down close to 12 per cent, the lowest it has been for a long time. When the money supply report later in the day showed a much smaller jump in M1 than the market had been expecting (\$5.9bn compared to "July bulge" fears of as much as \$12bn), bond prices added to their gains. M1 is still within its target range, although only just.

Most speculation centred on a cut in the Fed's discount rate which has stood now at 12 per cent since the end of last year.

Also bullish for the market is mounting evidence that the U.S. economy is not, after all, pulling out of recession. The latest retail sales and industrial production figures out last week were down, having shown gains earlier this year.

The better tone in the markets brought out a few borrowers last week, though the pace of new issues continues at a very subdued rate. General Motors Acceptance Corp sold \$200m of one-year notes which can be extended by holders for up to eight years, with yields adjusted yearly. The starting yield was 14 1/2 per cent.

Major issuers down for this week — again with extendable notes — include Caterpillar Tractor and Dupont, which has \$1bn "on the shelf" to restructure the huge debt it incurred buying Conoco last year.

David Lascelles

Top posts at Dow Chemical

● DOW CHEMICAL COMPANY has elected Mr Robert W. Lundeen as chairman. He succeeds Mr Marie R. Barnes who retired. Mr Lundeen has been executive vice-president since 1978. Mr William N. Lipscombe Jr has been elected a director and Mr H. W. Henry a vice-president.

Mr Robert L. Doatal, director of DOW CHEMICAL U.S.A., health and environmental sciences, has been appointed general manager of the western division, from August 1. He succeeds Mr Paul M. Pankratz who has been named vice-president and director operations for Dow Chemical U.S.A. in Midland.

● Mr Sam Y. Cross, Mr Ronald B. Gray and Mr Peter D. Stern-

...executive vice presidents of the FEDERAL RESERVE BANK OF NEW YORK. All had been senior vice presidents. Mr Cross, who also has been manager for foreign operations, and Mr Sternlight manager for domestic operations of the Federal Reserve System's open market account. They continue in these positions. Mr Gray continues in charge of the bank supervision area.

● Mr J. E. (Jess) McCollum has been named president of all SCHROEDER ENERGY ASSOCIATES, INC., a subsidiary of Schroeder Incorporated formed recently to provide investment and financial advisory services to oil and gas industry investors and operators. Mr McCollum was president of Tatham Corporation and its wholly-owned subsidiary, Tatham Oil and Gas, Inc. Mr McCollum serves as a director of the Independent Producers Association of America.

● Mr J. A. Lynott, executive vice president and chief finan-

This advertisement complies with the requirements of the Council of The Stock Exchange.

U.S. \$175,000,000

(U.S. \$150,000,000 to be issued as an initial tranche)

UNITED MEXICAN STATES

18 1/2% - Retractable Bonds Due 1997

The following have agreed to subscribe or procure subscribers for the Bonds

Merrill Lynch International & Co.

Arab Banking Corporation (ABC)

Sumitomo Finance International

Bank of Tokyo International Limited

Banque Indosuez

Citicorp International Bank Limited

Crédit Lyonnais

Credit Suisse First Boston Limited

First Chicago Limited

Goldman Sachs International Corp.

Kidder, Peabody International

Lloyds Bank International Limited

Morgan Stanley International

Orion Royal Bank Limited

Salomon Brothers International

Standard Chartered Merchant Bank Limited

S. G. Warburg & Co. Ltd.

Williams & Glyn's Bank plc.

The Bonds, issued at 100 per cent., have been admitted to the Official List by the Council of The Stock Exchange, subject only to the issue of the temporary global Bonds. Interest will be payable annually in arrears on 21st July, beginning 21st July, 1983.

Full particulars of the Bonds are available in the Extel Statistical Service and may be obtained during usual business hours on any weekday (Saturdays and public holidays excepted) up to and including 2nd August, 1982 — from the brokers to the issue:

Cazenove & Co.,
12 Tokenhouse Yard,
London EC2R 7AN

19th July, 1982

INVEST IN 50,000 BETTER TOMORROWS!

Key Figures for the year 1982

	1982	1981
	£000's	£000's
Turnover	54,767	52,872
Profit before tax	3,198	3,164
Tax	1,336	637
Profit attributable to Shareholders	1,862	2,527
Retained Profit	650	1,516
Earnings per share before tax	15.91p	15.84p
Earnings per share after tax	9.25p	12.84p
Ratio of Net Profit to Shareholders' Funds	13.0%	13.1%

WAGON INDUSTRIAL

Wagon Industrial Holdings p.l.c.

Copies of the Report and Accounts may be obtained from
The Secretary, Wagon Industrial Holdings p.l.c.,
Haldane House, Halesfield, Telford, Shropshire, TF7 4LN.

Yesterday the company's share price stood unchanged at 12p, following the announcement of the issue and a recovery to profit for the year to March 31 1982.

The group, which is 48.48 per cent owned by East Rand Consolidated, shows a £21,815 pre-tax profit for the year, against a loss of £10,029, after a small second-half loss. At half-time there was a profit of £20,593 (£21,596).

The issue is not underwritten but East Rand has indicated that it will probably take up its full entitlement. The proceeds will be applied to reducing borrowings and to fund expansion of its subsidiary group, Corrugated Cases.

Because of long standing tax losses the group is able to enjoy tax free share dealing gains.

The net dividend is held at 0.75p on stated earnings per share of 1.39p (1.24p) after a tax credit of £37,469 (£64,767).

join the Market, a 15m new represent company. The company will retail in the U.S. and have been about the parent's. In addition, Madison owns U.S. as well as on and onsh.

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This advertisement complies with the requirements of the Council of The Stock Exchange.

U.S. \$50,000,000

Teléfonos de México, S.A.

(Incorporated under the laws of the United Mexican States)



18¼% Retractable Notes Due 1997

The following have agreed to subscribe or procure subscribers for the Notes:

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The issue price of the Notes is 100 per cent. of their principal amount. The Notes have been admitted to the Official List by the Council of The Stock Exchange, subject only to the issue of the Notes.

Interest is payable annually in arrears on 15th August, the first payment being made on 15th August, 1983.

Full particulars of the Notes are available in the Extel Statistical Service and may be obtained during usual business hours up to and including 18th August, 1982 from the brokers to the issue:

Eazenove & Co.,
12 Tokenhouse Yard,
London EC2R 7AN

4th August, 1982

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