

POLICY RESEARCH WORKING PAPER

WPS 1984

1984

NAFTA, Capital Mobility, and Mexico's Financial System

Thomas Charles Glaessner

Daniel Oks

Several analytical approaches are integrated to answer three questions: Are there aspects of the NAFTA accord, combined with liberalization of Mexico's financial system, that will affect the efficiency with which financial services are provided or the size and composition of capital flows to Mexico? How does NAFTA affect macroeconomic and microeconomic policies related to the financial system? And through which channels will NAFTA affect macroeconomic stability or risk in the financial system?

The World Bank
Latin America and the Caribbean Region
September 1998



Summary findings

Typically the impact of the North American Free Trade Agreement (NAFTA) is analyzed from a macroeconomic perspective, to examine the implications for capital market flows or for the aggregate degree of financial integration. This analysis often involves examining whether certain conditions of arbitrage or efficiency tend to hold, given greater integration of financial markets.

Alternatively, other work examines only the effects of greater financial integration for the efficiency with which financial services are provided microeconomically.

The two approaches are rarely combined, nor are the effects of integration considered within such a combined framework.

Glaessner and Oks combine the two approaches to examine how NAFTA will affect capital flows and the efficiency with which financial services are provided in Mexico.

They also call attention to domestic financial system and monetary and exchange rate policy issues that Mexico must address if greater financial integration is not to result in increased risk for the domestic financial system or greater macroeconomic instability.

This paper — a product of the Latin America and the Caribbean Region — is part of a larger effort in the region to examine the impact of cross-regional policy lessons. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Miguel Navarro, room IS-076, telephone 202-458-4722, fax 202-522-2106, Internet address mnavarromartin@worldbank.org. Thomas Glaessner may be contacted at thomas_glaessner@sfmny.com. September 1998. (55 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

NAFTA, Capital Mobility and Mexico's Financial System

Thomas Glaessner *
and
Daniel Oks *

World Bank
Washington, D.C.

* The views in this paper are those of the authors and should not be attributed to the World Bank. Paper presented at the session of "Capital Mobility and Financial Integration in North America", Allied Social Science Associations (ASSA) annual meetings, Boston, January 3-5, 1994.

NAFTA, Capital Mobility and Mexico's Financial System¹

I. Introduction

1. On November 17, 1993, the United States ratified the North American Free Trade Agreement treaty. Debate continues as to the effects of this treaty on both capital inflows and outflows and their composition, and the implications for the Mexican financial system in particular. Analyses of the causes of capital flows typically derive from a macroeconomic framework based upon basic arbitrage conditions and are linked to key macroeconomic policies, (see Hanson (1992), Calvo et al.(1993)) for good reviews). In contrast, several authors have focused more narrowly on how the financial service provisions of the NAFTA treaty are likely to effect the degree of competition in the Mexican financial system. This work has either focused on the efficiency of banking services (see Gruben, Welch and Gunther (1993) or Garber and Weisbrod (1992)) or has attempted to examine the microeconomic implications for the financial system of capital account opening (see Mathieson and Rojas-Suarez (1993)). Finally, still other authors have argued (see Vittas et al. (1993) that the NAFTA financial service provisions did need to provide for a certain period of adjustment for newly privatized Mexican financial groups to compete with US and Canadian institutions. This paper tries to partially integrate a number of these approaches to answer three basic questions:

- Are there aspects of the NAFTA accord, combined with liberalization of the financial system, that will fundamentally effect the efficiency of financial service provision and the size and composition of capital flows to Mexico?
- How does the NAFTA accord heighten the significance of certain domestic macroeconomic policies (exchange rate, monetary and fiscal policies) and microeconomic policies relating to the financial system?
- Given the answers to the first two questions, through which channels will NAFTA either increase or decrease "systemic risk" in the financial system and/or "macroeconomic instability"? In this context, would a more rapid opening with respect to the provision of financial services be warranted than is currently planned?

2. This paper does not examine all parts of the NAFTA treaty, nor does it analyze the many domestic legislation changes that could have an important bearing on capital flows, (e.g. the foreign investment law, treatment of intellectual property, tax legislation, the new anti-monopoly law etc.) in order to address these questions. Rather, the focus of this paper is on the financial provisions of the NAFTA accord and their interaction with measures to liberalize the domestic

¹ The authors would particularly like to thank Augustin and Catherine Mansell Carstens, Moises Schwartz, Patricia Armendariz, Tomas Ruiz, Guillermo Barnes, Guillermo Prieto Trevino, Miguel Cano, Marin Maydon, Ruben Yesin and many other government officials and private market participants for helpful discussions. They would also like to thank Mr. Bachman from Cleary Gottlieb, and Messrs. David Scott, Don McIsaac, Dimitri Vittas, Ross Levine, Salvador Valdes, Frank Lysy, Pat White, Jeffrey Marquardt, Ernesto May and Alfredo Thorne. Special thanks are extended to Roberto Panzardi and Tony Ollero who provided research assistance, and to Virginia Clarke who helped in the production of this paper.

financial system that have been implemented since 1988 to the present. At the same time, we examine the interactions between these provisions and certain key macroeconomic policies (exchange rate and monetary policy).

3. Section II provides a setting for our discussion by reviewing recent macroeconomic trends in respect to the composition of capital flows. This section also provides a recent snapshot of the factors which helps to explain the very high before tax nominal rates of interest still observed in Mexico as well as some background regarding the structure and health of the financial services industry in Mexico. Finally, it outlines some aspects of the NAFTA financial services provisions.

4. Section III examines how the NAFTA accord and, in particular, its financial service and investment provisions will impact on the level and composition of capital flows. In addition, it examines the extent to which efficiency in the provision of financial services will be improved. It identifies some channels that will promote greater competition and efficiency in financial services that have not been highlighted in the paper by Gruben et al.(1993).

5. Section IV argues that certain types of domestic financial policies take on particular importance in light of the NAFTA provisions at both the microeconomic and macroeconomic level. Specific domestic financial and macro policy areas are highlighted here to show how NAFTA would effect either systemic risk of the financial system or macroeconomic instability. Some options for changes in these domestic policies to ameliorate these problems are discussed.

6. Section V summarizes and comments on the implications of the above analysis for a more rapid opening of the financial services industry in Mexico than called for under NAFTA.

II. The Setting

7. The implications of NAFTA for capital flows and efficiency in provision of financial services must start from an adequate understanding of the economic environment that would be faced by a prospective investor. The sections below outline characteristics of the macroeconomic environment, the size, structure, and composition of capital flows, and some information in respect to the reasons for the continued high lending rates and their relatively large dispersion across borrowers of different size. It also focuses attention on the microeconomic structure of the Mexican financial conglomerates that provide various types of financial services and concludes with a discussion of some of the key characteristics of the NAFTA financial services provisions.

A. Capital Flows

8. The magnitude and composition of capital flows into Mexico have not been independent of the macroeconomic environment (see Sections A.1 and A.2 below). Moreover, the destination and composition of the flows of capital into Mexico has changed markedly in relation to the early 1980's (see section A.3).

A.1. Macroeconomic Background

9. Economic growth ground to a virtual halt over 1982-87. During this same period there was a sharp deterioration in living standards, the infrastructure deteriorated, high inflation was prevalent, and investor confidence was undermined. Policy makers responded to the inflation explosion of 1987 (inflation peaked at 159 percent) with an ambitious stabilization program, known as the "Economic Solidarity Pact" or "Pacto". Mexico's unprecedented fiscal austerity program was crucial for the success of the Pacto. The Pacto, announced in December 1987, was an agreement between business, labor, and government which called for accelerated structural reform, further tightening of fiscal policy, wage controls, and control of basic public and private sector prices. The cornerstone of the Pacto was a freeze of the nominal exchange rate (ER) against the US dollar. Monetary policy was tightened in order to support and sustain the ER policy. The Pacto was renewed, with important modifications, by the new Mexican Administration under the name of "PECE" (Pact for Stabilization and Growth). Under the PECE and its successive renewals (the latest one was in October 1993), public tariffs and minimum wages were revised, contractual wages in the private sector were liberalized in 1989, controlled prices were revised and most were de facto liberalized in 1990, and a daily adjustment of the peso ER against the U.S. dollar was introduced (1 old peso a day for most of 1989, 80 cents for most of 1990, 40 cents for most of 1991). The preannounced daily rate of devaluation was, in November 1991, replaced by an ER band. The floor of the ER band remained fixed at the November 1991 level while the ceiling was depreciated daily, based on a preannounced schedule (20 old cents for most of 1992, 40 cents in 1993 and 1994).

10. In the case of almost every macroeconomic target under direct or indirect governmental control, performance under the PECE (or, interchangeably, Pacto) has been exemplary, in some instances going far beyond what was originally planned (Table 1). Inflation dropped from 159 percent in 1987 to 19 percent in 1989; it rose temporarily during 1990 (to 30 percent) due to the price de-control of most private goods. The downward trend was resumed in 1991 and by 1992, inflation was less than 12 percent; 8 percent inflation is expected for 1993. After virtually stagnating from 1982-88, output growth averaged 3.5 percent in 1989-92. It peaked in 1990 and has since declined to 2.6 percent in 1992 reaching almost zero in mid-1993. Confidence in the economy, a key factor in the economic recovery, was reflected in sharp declines of the nominal interest rates and massive private capital inflows.

Table 1
Basic Macroeconomic Indicators

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Money and Finance:											
Inflation % (CPI) 1/	101.9	65.5	57.7	86.2	131.8	114.2	20	26.7	22.7	15.5	
M1 Growth Rate 2/	41.4	62.4	53.8	72.1	129.7	58.1	40.7	62.6	119.8	17.3	14.2
Interest Rate (Cetes 28 days, Annual)	75.4	62.2	82	135.2	156.4	114.5	56.9	42	21.4	17.1	
BOP - US\$											
Trade Balance	14105	13184	8398	5020	8787	2610	405	-882	-7279	-15934	
Exports of GNFS	30004	33886	31503	26339	32975	36712	42307	48673	51401	55299	61242
Imports of GNFS	16216	21028	23741	21805	23894	34146	42426	51535	60508	73617	76394
Current Account	5424	3765	404	-1771	3820	-2922	-6085	-7114	-13780	-22800	
Capital Account	339	1306	-316	-2716	-1189	-1163	3176	8164	24134	25955	
Fiscal											
Primary Bal./GDP	4.8	5.5	3.9	2.6	5.6	8	8.5	7.7	5.3	4.5	
Economic Bal./GDP	-8.1	-7.1	-8	-14.5	-14.4	-9.3	-4.8	-2.2	-0.3	1.6	0.7
Oil Price (\$/Bar) 4/	28.37	28.25	26.98	13.82	17.79	14.15	17.19	22.05	18.3	19.22	
LIBOR	9.7	10.9	8.4	6.9	7.2	8	9.3	8.3	6		
Real Sector:											
GDP Growth Rate	-4.2	3.6	2.6	-3.8	1.9	1.2	3.3	4.4	3.6	2.8	0.1
Mfc. Growth Rate	-7.8	5	6.1	-5.3	3	3.2	7.2	6.1	4	2.3	-1.5
Real Exchange Rate	1.49	1.31	1.28	1.65	1.56	1.34	1.350	1.302	1.189		
Consumption/GDP 5/	69.7	72.3	73.7	77.1	74.6	78	78.8	79.3	80.7	82.9	
Investment/GDP 5/	20.8	19.9	21.2	18.3	19.3	20.4	21.4	21.9	22.4	23.2	

A.2. The Magnitude of Capital Flows

11. Associated with these macroeconomic developments was a sharp improvement in confidence of both Mexico's private sector and foreign investors. Long-term capital inflows, including massive capital repatriation, skyrocketed to US\$24 billion in 1991, after being negative (on average) over 1985-88. Capital inflows remained strong in 1992 at US\$26 billion, and during the first half of 1993 at US\$16 billion. Although Mexico's economic rebound can be traced back to structural reforms which began well before the Pacto, the reform program was intensified (both in scope and in depth) after the Salinas Administration came into office in late 1988. Among the more important actions have been: the comprehensive commercial foreign debt restructuring cum-debt reduction reached in 1990; commercial bank privatization over 1991-92; application of most privatization proceeds to domestic debt reduction; NAFTA ratified in 1993; reform of the land-tenure "ejido" system; and, the central bank autonomy law passed in December 1993 by an overwhelming congressional majority. Most of these reforms were virtually inconceivable in 1988.

12. With all the successes that Mexico has had in restructuring its economy, regaining access to foreign capital markets, and in bringing down inflation to single-digit levels, the recent evolution observed in several macroeconomic indicators are a cause of concern. The strong deceleration in economic growth over 1991-92 has coincided with a sharp real peso appreciation and large trade deficits. Although trade and current account deficits were over-financed by private capital inflows, and the real ER appreciation was, in large measure, induced by these capital inflows, the sustainability of economic growth per se is now in question. Economic

growth in 1993 is expected to be close to zero. Lower domestic and, particularly, private saving accounted for more than half of the account deterioration in 1988-92. As a result, private external indebtedness has risen sharply (albeit from a low base). Non-bank private debt rose from approximately US\$5 billion in 1989 to almost US\$15 billion in September, 1993; and Mexican commercial banks net external debt increased US\$12 billion between 1989 and September, 1993.

13. The combination of very slow growth and very large trade and current deficits raises concerns about the medium-term capacity of Mexico's private sector to service external liabilities. In view of these concerns, Mexico remains vulnerable to volatile capital inflows in the short term. Private saving must eventually improve and, in this process, medium-term prospects for output growth will brighten. However, in the short term, the improvement in private saving (a reduction in consumption) will require a domestic economic contraction. It is possible that this is in fact what we began to observe in 1993: a sharp real contraction of private consumption (in absolute terms) associated with low or even zero economic growth. The 1993 slowdown has been compounded by a sharp deceleration in private investment due, in part, to uncertainties related to NAFTA, and in part, to high real interest rates.

A.3 Destination and Composition of Capital Flows

14. The surge in capital inflows has been associated with a large change in the composition of the sources and destination of those flows. As Table 2-a shows, the bulk of the new flows financed the private rather than the public sector. Most of the new flows were direct foreign investment (DFI) rather than debt-creating flows as was the case in the late 1970's and early 1980's. In turn, the bulk of DFI was portfolio investment. Portfolio investment rose from 0 in 1988 to US\$9.8 billion in 1991, US\$13.5 billion in 1992 and US\$7.8 billion in the first half of 1993. Among the debt-creating flows, bond issues were the most important. There were almost no new syndicated bank loans to Mexico. Outstanding bond offerings in foreign capital markets (see subsection B.1) rose from US\$0.6 billion in 1989 (of bonds issued during 1982-89) to US\$19.4 billion in 1993 (of bonds issued during 1982-93).

Table 2-a
MEXICO: Capital Inflows 1989-92

	1989	1990	1991	1992
1. Total Capital Flows	3,037	8,163	24,133	25,954
2. Total Private Flows	881	5,910	15,807	21,142
Foreign Direct Investment	3,669	4,628	14,632	18,919
Net Direct Investment	3,176	2,633	4,762	5,366
Portfolio Investment	493	1,994	9,870	13,553
Private Non-Guaranteed Debt (Net)	(2,788)	1,282	1,175	2,223

15. In view of the growing importance of portfolio flows, it is useful to show as well how the composition of these flows evolved. Up until 1991, the bulk of portfolio investment went into equity (see Table 2-b). Thereafter, foreign investment in Mexican domestic government paper gained importance, partly reflecting Mexico's growing fiscal strengths, and partly reflecting the slowdown in economic growth in 1992-93 (Table 2-c). By October of 1993 portfolio investment

by foreigners in government securities amounted to 44 percent of the stock outstanding of all forms of securities. Portfolio investment in CETES amounted to almost 50 percent of the stock of such securities. Finally equity holdings by foreign investors now account for more than 60 percent of the value of shares outstanding which are being transacted.

Table 2-b
Foreign Investment in the Mexican Stock Exchange
Amount Outstanding at Market Value
(Millions of Dollars)

Month	ADR's		Free Subscription		Neutral Fund		Mexico Fund		Total	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
Dec 1989	402.0	49.8	107.0	13.2	35.0	4.3	264.0	32.7	808.0	100.0
Dec 1990	2,086.8	51.2	1,072.7	26.3	676.0	16.6	243.9	6.0	4,079.5	100.0
Dec 1991	13,733.5	74.1	2,961.0	16.0	1,348.8	7.3	499.3	2.7	18,542.5	100.0
Dec 1992	21,154.0	73.8	5,097.0	17.8	1,798.1	6.3	619.0 ^{1/}	2.2	28,668.0	100.0
Jun 1993	16,202.4	73.3	3,780.1	17.1	1,460.9	6.6	674.4	3.0	22,117.7	100.0
Dec 1993	21,154.0	73.8	5,097.0	17.8	1,798.1	6.3	619.0 ^{1/}	2.2	28,668.0	100.0
Annual Variations										
Dec-90/	419.1		902.6		1,831.5		-7.6		404.9	
Dec-89										
Dec-91/	558.1		176.0		99.5		104.8		354.5	
Dec-90										
Dec-92/	54.0		72.1		33.3		24.0		54.6	
Dec-91										

^{1/} Portfolio value at October 1992.
SOURCE: Anuario Bursatil 1992, Bolsa Mexicana de Valores, January, 1993

Table 2-c
Foreign Investment in Mexican Government Securities
Amount Outstanding at Market Value
(Millions of New Pesos)

Date	CETES		PAGAFES 1/		BONDES		TESOBONOS 1/		AJUSTABONOS		TOTAL	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
Jan-31-91	4,056.6	41.1	262.1	2.7	4,634.7	47.0	53.4	0.5	862.2	8.7	9,868.9	100.0
Jun-28-91	6,692.4	45.3	667.8	4.5	4,008.2	27.1	23.8	0.2	3,379.1	22.9	14,771.3	100.0
Dec-30-91	9,075.1	54.0	64.8	0.4	2,231.1	13.3	790.1	4.7	4,641.5	27.6	16,802.7	100.0
Jun-30-92	15,039.3	58.4	0.0	0.0	1,695.4	6.6	924.3	3.6	8,078.8	31.4	25,737.7	100.0
Dec-30-92	28,539.9	64.3	0.0	0.0	3,856.8	8.7	615.6	1.4	11,355.8	25.6	44,368.1	100.0
Annual Variations												
Dec-91/Jan-91	123.7		-75.3		-51.9		1,381.0		438.4		70.3	
Dec-92/Dec-91	314.5		N.A.		72.9		-22.1		144.7		164.1	

^{1/} For PAGAFES and TESOBONOS the average exchange rate of current month was used.
SOURCE: Banco de Mexico

B. Trends in Cost of Offshore Borrowings

16. Since the signing of the Brady deal for restructuring its foreign commercial debt in 1990, Mexico has consistently improved the terms of its new borrowings in international capital markets (subsection B.1). Quite independently from this trend, the terms obtained reflect increasing differentiation in terms of the risks associated with specific financial institution borrowers (Subsection B.2).

B.1 Corporate offshore borrowing operations and rates

17. With the restructuring of its external public debt under the Brady plan, Mexico's access to international capital markets improved sharply. This was not just reflected in improved access for both debt and equity issues but also in the terms for the new bonds issued (see Table 3). In 1982-89, total new bond issues totaled US\$1.3 billion, of which US\$0.6 billion was issued in 1989 (the year in which the Brady plan was launched). In 1990 alone, new bond issues reached US\$3 billion. This figure was surpassed in 1991, US\$3.2 billion, and once again in 1992, with US\$4.2 billion. During 1993, there was another sharp rise of new bond offerings, totaling US\$9.8 billion up through November.

18. The improved terms of new offerings refers both to lower interest spreads with comparable maturity instruments (US T.Bills) and longer maturities. Yield spreads over risk-free, 5 year public paper have narrowed in the primary market from 820 basis points on unenhanced paper (i.e., unsecured) which BANCOMEXT launched in June 1989, to around 400 basis points in the second half of 1990 (NAFIN obtained a 424 basis points spread and PEMEX 377 towards the end of 1990). The spread of the 5 year unenhanced public paper over the 5 year US T.Bill fell to around 250 basis points in late 1991 (PEMEX) and to slightly above 200 basis points in April 1992 (for maturities of up to 10 years). There has been some fluctuation since then: although we don't have spreads for public paper, the spreads of unenhanced private paper tended to increase for the rest of 1992 (for example, CEMEX obtained a 280 basis points spread in November 1991, but had to pay a 465 basis points spread in May 1992), suggesting that something similar may have happened with public paper. During 1993, yield spreads over risk-free, 5 year selected public paper evolved as follows: 208 basis points in March (U.M.S.), 215 basis points in July (BANCOMEXT) and 225 basis points in November (NAFIN).

19. A gradual lengthening of the maturities of new offerings has also been observed. While the typical maturity in 1989-90 was 2 to 5 years, more or less frequent issues (mainly public) of 7-10 year maturity paper appeared in 1991-92. In 1992-93, maturities of 5-10 years also become accessible to a few private firms including commercial banks. Another breakthrough took place in November, 1993 when PEMEX issued a 30 year US\$250 million note with a spread of 220 basis over the 30 year US T.Bill.

Table 3
Terms of Offshore Debt Issues

Issuer	Date of Issue	Amount	Currency	Interest Rate	Spread over US T Bill	Maturity
Bancomext	06/01/89	100,000,000	US Dollars	10.250	820	5
Nafin	08/02/90	100,000,000	US Dollars	11.750	424	5
Pemex	12/13/90	100,000,000	US Dollars	11.430	377	5
Pemex	10/08/91	150,000,000	US Dollars	10.250	245	7
Cemex	11/15/91	100,000,000	US Dollars	10.00	280	5
Nafin	06/01/92	100,000,000	US Dollars	9.375	195	10
Cemex	11/05/92	280,000,000	US Dollars	10.000	455	7
UMS (UN Mex St)	03/16/93	200,000,000	US Dollars	7.250	208	5
Bancomext	07/06/93	200,000,000	US Dollars	7.5	215	7
Cemex	08/31/93	120,000,000	US Dollars	8.5	311	7
Nafin	11/10/93	100,000,000	US Dollars	6.25	225	5
Pemex	11/18/93	250,000,000	US Dollars	8.5	220	30

Source: Comision Nacional de Valores

B.2 Commercial Bank Offshore Borrowing Rates

20. Besides data on the cost to the Mexican government on borrowing in international markets and to larger non-financial corporations through ADR and ADS offerings, it is interesting to examine the costs of short term borrowing in international markets to different banking groups. This can be done by examining the costs of short-term borrowing rates in the offshore Euromarkets. Rates quoted in this market suggest significant tiering across Mexican commercial banks of different size and capital strength. For example, immediately after commercial bank privatization, the cost of funding in the Euro-bond market hardly reflected any dispersion. The range of rates had widened by as much as 200 to 300 basis points for Mexican commercial banks of different size by December 1993. This can be seen by examining the differences in similar maturity zero coupon bond offerings by such banks as seen in Table 4. These changes reflect investor expectations about the relative solvency and risk of investments in these institutions. Such differences have started to become more pronounced as the Government of Mexico (GOM) increasingly sends the signal that it is prepared to permit commercial banking groups to take significant losses as witnessed by the 1992 episode with Ajustabonos.² These trends would suggest that remaining competitive may require that medium and small Mexican financial groups without extensive branch networks and limited capital strength will increasingly consolidate with other smaller financial groups. This is a trend that has already begun.³

² In the first quarter of 1992, the real interest rate paid by the Ajustabonos (inflation indexed public debt) declined to a record low of about 2 percent. Following a series of measures aimed at curbing the growth of the dollar exposure of commercial banks, as well as a sharp increase in the current account deficit, real interest rates began to increase. As a result, many banks that were holding Ajustabonos as part of the liquidity requirement imposed by the Bank of Mexico, incurred substantial capital losses since their purchases of these bonds were funded with short term repurchase agreements. The government suspended new issues of Ajustabonos for the rest of 1992.

³ At this writing, at least 2 mergers between financial groups are in process.

Table 4
Offshore Costs of Borrowing by Selected
Mexican Financial Groups *

Instrument	Issuer	Date of Issue	Maturity Date	Interest Rate	Amount
CD	Bancomer (London)	15-Sep-93	15-Dec-93	3.7500%	\$3.400
CD	Banorte	23-Nov-93	21-Feb-94	5.1250%	\$4.000
CD	Comermex	03-Dec-93	01-Jun-94	5.1875%	\$10.000
CD	Confia	13-Oct-93	11-Jan-94	5.3730%	\$0.600
CD	Union (Formerly Bco BCH)	08-Oct-93	06-Apr094	3.7500%	\$2.600

* As of December 1993

C. Economic Factors Beyond Mexico's Control

21. The integration of Mexico into the world economy and, particularly, the US economy, has increased its vulnerability to external and domestic exogenous factors. It is important to identify what these factors may be and how they may evolve over time in order to assess their potential impact on systemic risk in the financial sector as well as on monetary and exchange rate policy.

22. During the next Sexenio, Mexico will find itself under strong pressure to modernize its political institutions. While this will lead to greater stability eventually, there is the risk that during the transition there may be periods of greater macroeconomic policy uncertainty. The creation of an autonomous Central Bank will help to diminish these risks.

23. During the 1980s and early 1990s, the business cycles of Mexico and the US do not appear to have been closely correlated. However, the ongoing economic integration between Mexico, Canada and the US under NAFTA will increase Mexico's dependence on US economic activity and, in particular, US monetary policy.

24. Mexico will remain vulnerable to the traditional sources of risk -- foreign interest rates and oil prices. However, these sources are likely to be less important for several reasons in the years ahead. First, about half of Mexico's public foreign debt is set at fixed rates (the Brady par bonds). Second, a large share of growing private foreign liabilities has taken the form of equity with foreigners absorbing much of the risk. Nevertheless, an increase in foreign interest rates may prompt a reversal of capital flows that were previously driven by low US interest rates. Mexico has also reduced its dependency on oil revenue: oil exports accounted for less than 20 percent of total exports in 1992, compared to more than two-thirds in the early 1980s.⁴

25. Finally, Mexico will remain vulnerable to investor perceptions that treat the country as "a new junk bond market". One of the more interesting reasons for the massive capital inflows into Mexico has been the drying up of the developed country junk bond market: the implications go beyond Mexico and apply to all Latin American countries that are receiving large capital inflows from developed countries. As Mexico becomes "accepted" on international markets,

⁴ Part of this shift is due to lower oil prices.

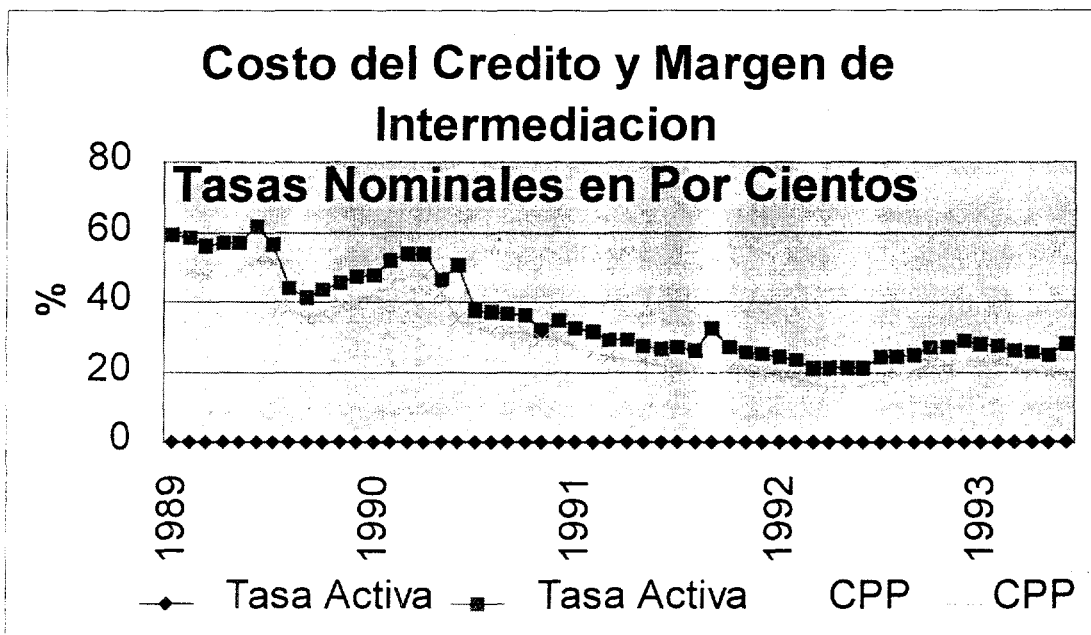
international investors may reorient portfolios away from Mexico as opportunities to invest in high-yield securities open up in other parts of the world.

D. Micro and Macro Factors Affecting the Costs of Capital In Mexico

26. Although substantial reforms were implemented to the financial system involving extensive deregulation of financial services over the 1988-92 period, nominal and ex-post real lending rates of interest before and after taxes have remained high. Chart 1 plots both the lending rates by commercial banks and the government cost of funds as reflected in CETES rates. It also shows the average cost of funds to commercial banks as measured by CPP. The spreads between CPP and Cetes has been widening over the 1989-93 period.⁵ This is due to the fact that the investment grade rating obtained for CETES elicited a strong demand by foreigners. The growing spread also reflects the fact that the relative solvency of the banking system has deteriorated slightly since the time of privatization.⁶

27. Underlying these high interest rates are both macroeconomic and microeconomic factors. Looking at these helps to highlight the types of

Chart 1



channels through which NAFTA provisions could have a beneficial effect on efficiency of financial intermediation in Mexico. Although the numbers are not precise, and are based on average, rather than marginal funding rates to commercial banks, the decomposition in Table 5 gives a sense for the magnitudes involved.⁷

⁵ This widening would also occur if the new average interbank rate were used (TIIP).

⁶ By June 1993, non-performing loans (as a percentage of total loans) had deteriorated to about 7.2 percent versus 5 percent in 1991-92.

⁷ The approximation error introduced by using CPP rates (i.e a weighted average of all rates quoted on different commercial bank liabilities) is not that large to the extent that all liabilities, even checking accounts, pay interest.

28. The margins starting at the US Treasury Bill (US T Bill) rate are high. Of course, these margins will never go to zero given the differences in credit risk across countries, tax treatment, and in efficiency of financial service provision. However, by comparing these margins to those which might reasonably be expected under more favorable macroeconomic conditions, or, given a more efficient financial system and securities markets, it is possible to highlight where attention should be placed.

29. *Macroeconomic* factors account for 9 percent of the difference between GOM borrowing rates as measured by CETES and the rate on U.S. treasury bills as of December 1993, when these calculations were done. About 1 percent can be attributed to the country risk premium; about 4.5 percent can be attributed to expected inflation (minus expected inflation abroad); and the remaining 3.5 percent can be attributed to the real exchange rate risk.⁸

30. *Microeconomic* factors help to explain an additional 8-25 percent of the margin between government borrowing rates and rates to large or small and medium enterprises. This additional margin can be separated into several components.

31. First, the 4 percent difference between CETES and CPP can be attributed equally to the risk of the banks themselves and to taxes that apply to commercial bank liabilities, but not to government liabilities. This margin is rather high and could be reduced through a combination of improved supervision and tax policy changes.

32. Second, the difference between CPP (the average cost of funds to commercial banks) and lending rates to large borrowers is about 6-8 percent. This difference, discussed in more detail in Annex 1 and in a recent study done by the Mexican Banking Commission, can be attributed primarily to the cost of bank operations (i.e. administrative and personnel costs account for about 70 percent of gross spreads). It also reflects implicit taxes such as capital requirements or deposit insurance quotas to FOBAPROA and provisions on bad loans i.e. "reservas preventivas".⁹ This spread also reflects the costs imposed due to nonexistence of markets in which to manage domestic interest rate risk at low transactions costs (and lack of market liquidity) that forces greater holdings of reserves for liquidity purposes.¹⁰ Finally, the high spreads also reflect profit margins. Annex 1 provides a more detailed analysis of banking spreads based on both the work of the authors and the CNB in Mexico.

⁸ See Notes in Table 5 for an explanation of this decomposition.

⁹ Commercial Bank loans are classified and it should be noted that having loans that are overdue (Cartera Vencida) does not imply that provisions have to be held against these assets.

¹⁰ Recent changes in Central Bank operating procedures have eliminated the need for commercial banks to keep deposits with the Central Bank to effect clearing of payments.

Table 5
Decomposition of the Lending Rate^{1/}

Macroeconomic Factors	Percent
1) Base Rate (US Treasury Bills) (1 month)	3.0
2) Country Risk Premium ^{2/}	1.5
3) Real Exchange Rate Risk ^{3/}	3.0
4) Inflation differential Risk ^{4/}	4.5
5) GOM Government Borrowing Rate (Cetes Rate) (2+3+4)	12.0
Microeconomic Factors	
6) Taxes applied to bank liabilities vs. Government liabilities ^{5/}	2.0
7) Risk of Banks ^{6/}	2.0
8) Average Cost of Funds to Commercial Banks (CPP rate) (5+6+7)	16.0
9) Bank Operating Costs, Profit Margin, and Implicit and Explicit Taxes ^{7/}	6-10
10) Estimated average lending rate (8+9)	22-26
11) Rates to Prime Borrowers	17-22
12) Rates to SME Borrowers	27-37

Source: Central Bank and authors estimates

1/ Assumes the following levels for interest rates: i^c (Cetes)=12%; i^t (Tesobonos)=4.5%; i^a (Ajustabonos)=5%; i^{TB} (US T.Bill)=3%. Tesobonos are dollar-indexed domestic debt instruments; Ajustabonos are inflation-indexed domestic debt instruments; Cetes are peso-denominated domestic debt instruments. We also assumed foreign inflation of 2.5%.

2/ Equal to: $(i^t - i^{TB})$

3/ Equal to: $(i^c - i^t) + 2.5 - (i^c - i^a)$
(foreign inflation) - expected domestic inflation

4/ Equal to: $i^c - i - 2.5^a$. To the extent that ajustabonos are of maturity 3-5 years and of longer duration that CETES (28 days) this approximation is biased downwards because of the liquidity premium inherent in the ajustabonos rate which is not reflected in the CETES rate.

5/ The exact size of the tax effect is dependent upon whether it is foreigners or domestic residents that purchase government or commercial bank liabilities as tax treatment differs. If it is foreigners it is 15% (tax rate applied to foreigners) of 15% (rate on bank liabilities) or 2.2%: if it is a mix of foreigners and domestic corporations, it would be $(2.2\% + 1.4\%)/2 = 1.8\%$.

6/ These rates reflect the risk differential between government and commercial bank liabilities. The bias introduced by comparing marginal government borrowing rates to average bank deposit rates is not allowed for but should be borne in mind.

7/ Recent reforms suggest that the most important components of commercial banking spreads are profit margins and operating and administrative costs. Implicit and explicit taxes taking the form of reserve requirements of liquidity coefficients have been eliminated in local currency. The exception relates to limitations on dollars denominated liabilities (no greater than 20%), 15% of which are subject to special investment guidelines relating to liquidity. This latter limitation obviously has implications for domestic lending rates as it limits the extent to which banks can pass on the lower costs of funding abroad to domestic borrowers. These calculations only consider banks and do not consider other entities within the financial group where other explicit taxes such as the value added tax of 10% would apply thereby having implications for the pricing of these services or for spreads charged in commercial bank lending operations as a means of compensating for these taxes.

8/ This spread was estimated by comparing the cost of a typical leasing contract (i.e.) where repossession is not a problem with the terms of credit contracts for small and medium enterprises. Note that this spread may understate the effective rates paid by small and medium sized borrowers as they must post collateral to obtain the loan that can amount to more than the value of the loan contracted.

33. In the United States, the difference between government borrowing rates and loans by commercial banks to prime customers is about 3.5 percent. This suggests that commercial banking spreads could be reduced by perhaps 3-5 percent. Measures to achieve this objective and the possible channels through which the NAFTA accord will create pressures to reduce commercial banking spreads are discussed further in the sections that follow.

34. Third, although along a continuum, the range between the lending rates to large borrowers and the rates to SME borrowers of 22-36 percent respectively is higher than one would expect in a more well developed and efficient financial system.¹¹ This large continuum reflects a variety of defects in Mexico's legal and institutional infrastructure that limits secured lending to SMEs. Different types of reforms involving modernization of the law of secured transactions and institutional improvements to Mexico's system of registries will be hastened by the NAFTA accord (see Section IV below). These types of reforms could remedy some of these problems and might reduce this continuum of rates by 4-6 percent.

35. An important proviso associated with the analysis of the microeconomic factors causing high commercial banking spreads is that such calculations do not take into account the financial services offered by all entities within a typical Mexican financial group. This can make the typical analysis of spreads for commercial banks misleading particularly given the growth and profitability of some types of non-banking services (e.g. leasing).

E. The Structure of the Mexican Financial Services Industry

36. Any analysis of the effects of the NAFTA financial service provisions cannot proceed without a careful examination of the rapidly evolving structure of Mexico's financial service industry (see Table 6 for detail). In this context, it can be important to understand not only what is legally required, but also how financial groups operate in practice. In addition, a number of important changes have been made in the legal and regulatory framework since the massive set of changes made over the 1990-92 period.

37. Newly privatized financial groups in Mexico are rapidly becoming fully diversified providers of financial services. These groups can provide retail banking services, insurance services, brokerage services, factoring and leasing services, asset and eventually pension management services, and investment banking and financial advisory services through the commercial bank. These products are cross-sold through branch networks both within Mexico and offshore. Moreover, it is important to note that very few of these services are offered through segmented, separately capitalized subsidiaries. The preeminence of commercial banks in terms of total financial system assets can be seen in Table 6 below, which portrays the data available on the proportion of total financial system assets controlled by each type of entity.¹² Usually some of these services are offered both by the commercial bank in the group and by a subsidiary that can offer the service. In addition, recent changes in the financial groups law in 1993 permit the holding to create multiple numbers of subsidiaries of the same type and to cross-

¹¹ This range of rates does not even include the capitalized value of collateral (usually taking the form of real estate equal to as much as three times the value of the loan) that would increase the bands of interest rates between large and small borrowers.

sell most financial services out of the offices of any of these entities. Cross-investments between subsidiaries are not permitted as a means of preventing pyramiding of capital.

38. In contrast to many other countries, the financial holding in Mexico (Controladora) is ultimately liable for the actions of any subsidiaries.¹³ In this way, the structure of Mexican financial groups is somewhat unique within the context of Latin America. Unlike multiple banks, the financial group in Mexico is typically organized under a financial holding (i.e. Controladora) where the industrial groups may ultimately control this financial holding. This occurs despite attempts under the financial groups law to limit "control" by any one industrial group.¹⁴

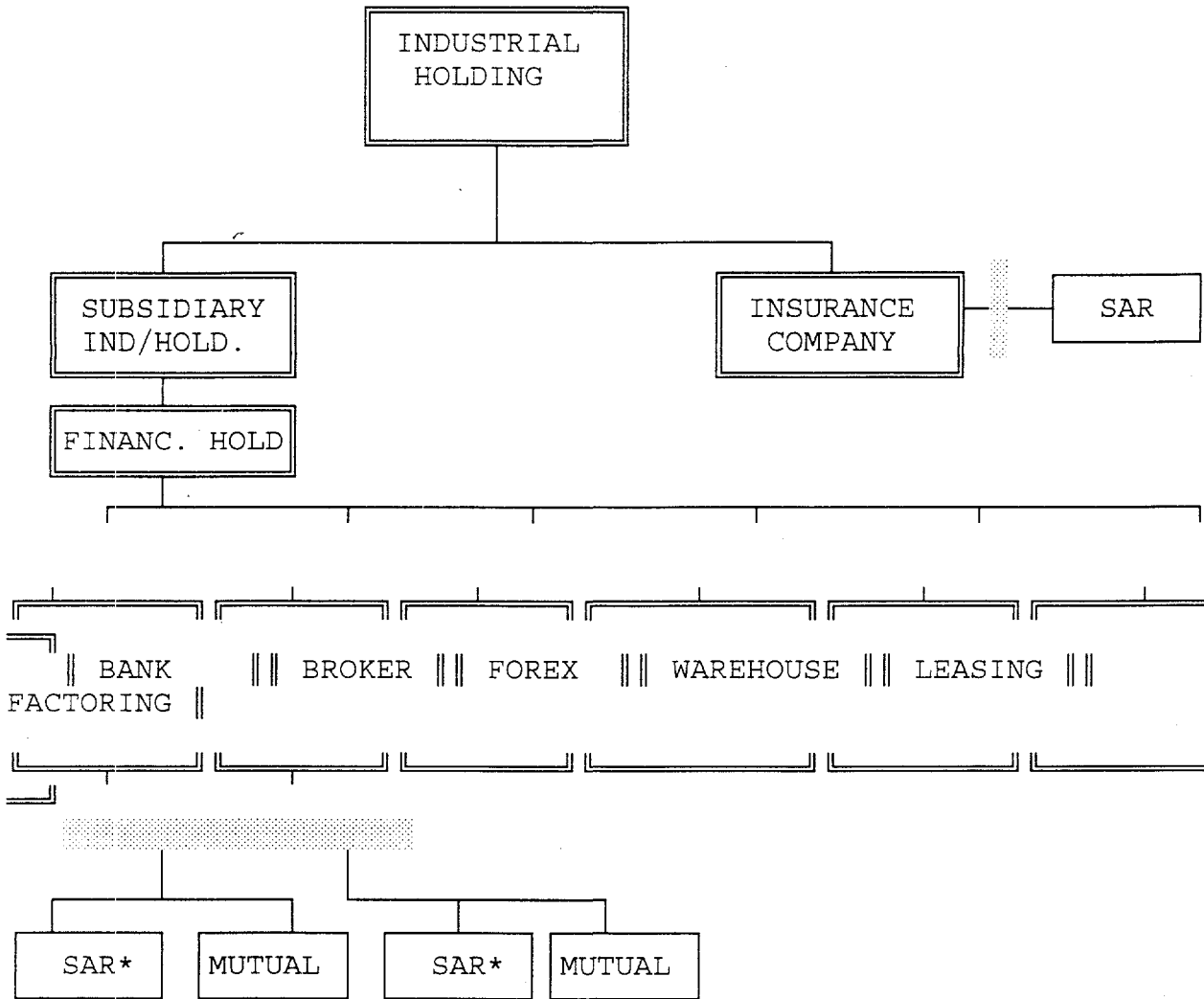
39. Chart 2 illustrates a typical structure. The chart shows that the industrial holding can have interests in both a financial group and in an insurance company. Present regulations might not treat the insurance company in this structure as related to the financial holding and permit cross-investments by the insurance company into the subsidiaries underneath the financial holding company.

¹² Note that this table excludes assets of credit unions a form of auxiliary credit institution that is not inconsequential.

¹³ The extent to which liability extends upstream to the industrial holding depends on the authorities knowledge of the extent of actual shareholdings by the industrial group in the financial holding.

¹⁴ This refers to the limitation that each series A shareholder not hold more than 5 percent of the shares which requires the ability for supervisors to determine the relation between parties.

CHART 2
STRUCTURE OF FINANCIAL CONGLOMERATES: MEXICO



* SAR: (Sistema de Ahorros para el Retiro)

Table 6.

Assets of the Financial System by Type of Institution (in billion Pesos)														
	1986 (%)		1987 (%)		1988 (%)		1989 (%)		1990 (%)		1991 (%)		1992 (%)	
Commercial Banks	33,636	46	78,566	45	105,460	42	155,854	47	238,251	53	367,653	58	398,079	59
Development Banks	33,833	47	85,259	48	99,069	39	109,305	33	103,773	23	116,282	19	136,258	20
Trust Funds	3,347	4.6	7,870	4.5	10,587	4.2	13,445	4	14,408	3.2	18,789	3	21,444	3.2
Brokerage Firms	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Insurance Companies	1,938	2.7	4,781	2.7	7,949	3.2	11,107	3.3	14,752	3.3	19,567	3.1	22,993	3.4
Mutual Funds	n.a	n.a	n.a	n.a	26,273	10	40,222	12	59,744	13	82,079	13	59,836	8.9
Factoring Companies	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	7,129	1.6	7,009	1.1	11,774	1.7
Leasing Companies	n.a	n.a	n.a	n.a	2,438	1	3,680	1.1	9,245	2.1	17,224	2.7	23,223	3.4
Warehousing Companies	n.a	n.a	n.a	n.a	n.a	n.a	705	0.2	1,077	0.2	1,531	0.2	1,812	0.3
Foreign Exchange Houses	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Total	72,754	100	176,476	100	251,776	100	334,318	100	448,379	100	630,134	100	675,419	100

Sources: Banco de Mexico, CNB, CNSF, CNV

Notes: These are gross assets and do not net out positions among these entitle

40. The actual services which can be provided by each entity within the group, as well as by the commercial bank and holding are summarized in Table 7.¹⁵ Note, that while commercial banks may take equity positions in firms or hold debt of such entities, they do not generally retain control of non-financial-corporations and they cannot legally underwrite securities offerings. Thus, such institutions cannot be thought of as "Universal Banks" despite the fact that many securities market transactions and investment banking functions can be carried out in the commercial bank within the financial conglomerate. Table 7 below indicates that many entities within the financial group can issue subordinated debt and can provide services that are close substitutes to those provided by the commercial bank.

41. Although this type of financial structure may allow for taking advantage of some economies of scope (see Ortiz ()) it also has its disadvantages. First, this structure may cause incentive problems if the "true" controlling industrial group experiences financial distress. In this case, the "controlling shareholder group" of the industrial enterprise often finds a means of decapitalizing the financial group as has occurred in other Latin American countries such as Chile and Colombia in the past. Second, this type of structure may hinder transparency, not only to consumers that must purchase a bundle of financial products, but also to the managers of the financial group. In this latter case, this structure can make measurement of risk exposures on a net basis more complex and lead to a greater possibility of management mistakes.

42. The profitability of banking and, more broadly, financial services (see Annex 1 for detail) has elicited interest in entry by domestic financial institutions; this year alone there have been 11

¹⁵ For a more detailed discussion of the set of services, see Glaessner "Private sector Development and the Development of the Mexican Financial System" (1992).

new entrants and 6 applications are still pending.¹⁶ There will be almost 30 financial groups operating in Mexico, although each with differing degrees of diversification in respect to the range of financial services offered, extent of capital backing and overall size. The capital of the 18 groups now operating i.e. of the holding, amounted to \$US25 billion as of June 1993 with about 60 percent accounted for by the three largest groups.¹⁷

F. Financial Provisions of NAFTA

43. The financial provisions of NAFTA have been described in some detail in other work (see Mansell-Carstens (1993); Gruben et al. (1993); and Bachman (1993)). For the purposes of this paper, it is particularly important to highlight those provisions that relate to the limitations to entry of foreign financial institutions, and cross-border financial services. However, other aspects of the provisions which deal with such areas as standard of treatment, rule of origin, transparency, dispute settlement, and reservations are also of importance (See Glossary for definitions).

44. *Market Access:* The NAFTA treaty does limit the access, albeit temporarily, of foreign financial institutions in such areas as banking, securities, and insurance related services. Table 8 summarizes some of the most important access limits to the Mexican financial services industry embodied in the treaty. Note, that in the case of banking and securities, there are both aggregate market share and individual market share caps that limit penetration during the phase-in period. These requirements are stated as a proportion of total capital for each type of entity through which entry occurs. In the case of commercial banks the capital (i.e., net worth) of the commercial bank or holding will be relevant depending on whether the prospective entrant establishes a financial group or only a commercial bank. In this case, the definition of capital includes both primary and secondary capital. By contrast in the case of brokerage services the concept of "global capital" is relevant in determining access limits which is not equivalent to net worth. The phase in period in the case of the aggregate market share will be from 1994-1999 and will be lifted by the year 2000. It is important to note however, that even these established entry schedules can be delayed under certain "safeguard" conditions in the treaty that apply to the entry of banking entities and securities firms. Moreover, as shown in Table 8, the protections to the Mexican payment system permit Mexican authorities to limit entry once foreign commercial bank affiliates have a share of aggregate capital of all commercial banks of 25 percent at any time over the phase-in period.

¹⁶ Nine of the new banks, many of which have regional concentrations, include: (1) Banco Capital S.A. (Grupo Financiero Capital); (2) Banco de la Industria, S.A. (40 Investor Group); (3) Banco Interestatal, S.A. (Union Credito Interestatal); (4) Banco de Sureste, S.A., (Grupo Financiero Sureste); (5) Banco Inbursa, S.A. (Grupo Financiero Inbursa); (6) Banco Promotor de Norte, S.A., (Casa de Bolsa Valores Bursatiles); (7) Banco Interacciones S.A., (Grupo Financiero Interacciones); (8) Banco Quadrum, S.A., (Grupo Financiero Quadrum); (9) Banco Mitel, S.A., (Grupo Financiero Mitel).

¹⁷ Moreover, in the case of most of these financial groups, at least 40-50% of the value of this capital reflected goodwill i.e. "credito mercantil".

TABLE 7
TYPES OF SERVICES AND LIABILITIES BY TYPE OF FINANCIAL ENTITY
(Preliminary and Under Revision)

TYPE	SERVICES	LIABILITIES
Holding Company (Controladora)	- Administration Agency for other holdings	- Equities (A.B.C.L) - Subordinated Debt - ADR/ADS
Commercial Bank	- Retail Services: - Credit Cards - Mortgage Lending - Corporate Services: - Corporate Lending - Financial Advisory: - Merchant/Banking (Project Finance) - Trust Services: - Asset Management - Management of Investment Funds (mutual funds) - Foreign Trading for own account - Own investments in equity and debt instruments and RPs	- Equities - Subordinated Debt - Ordinary debt instruments - Money market instruments inclusive of different forms of deposits (in local currency) - Extent of dollar deposits limited as a percent of total value of liabilities
Brokerage Firms	- Trading for account of clients - Trading for own account - Management of investment funds (mutual funds) - underwriting - Can engage in RPs	- cannot issue deposits - borrowing from local and foreign financial institutions - issuance of debt (subordinated) and equity
Exchange House	- Exchange foreign currencies (subject to Central Bank position limits)	- cannot issue deposits
Warehouse	- Storage and sale of goods and merchandise for own account - Transport of goods and merchandise - Transform goods and merchandises with the purpose to increase their value - certify quality of goods stored - Pack, bottle and label goods and merchandise - Buy and sell goods and merchandise on behalf of customers	- cannot issue deposits - Storage Certificate (for merchandise in deposit, transit or both) - Obtain loans and credit from foreign or local credit institutions, insurance and bonding companies - Subordinated debt - Credit instruments in series or mass - Discount documents - Issues Guarantees - Negotiate credit instruments and to affect credit rights
Leasing	- Credit for members - Negotiate the contract or administration of members' properties - Promote the organization and administration of commercial or industrial enterprises - Buy, rent or sell goods, merchandise or other items from members or third parties - Acquire share obligations and other instruments and maintain them in its portfolio	- cannot issue deposits - Loan and credits from members, providers, credit institutions, insurance and foreign or local bonding companies - Subordinated debt - Credit instruments in series or mass - Discount operations
Factoring	- factoring contract - Administration and collection of credit rights	- cannot issue deposits - Loan and credits from credit institutions, insurance and foreign or local financial institutions - Subordinated debt - Credit instruments in series or mass - Discount operations
Mutual Fund	- Invest client money - Operate with securities and instruments authorized by CNV	- Equities or quotas

45. In addition, the application of "national treatment" implies that minimum capital for entry must be in accordance with Mexican regulations. For new commercial banks seeking entry this requirement is about US\$20 million. Recent entrants have established initial capital levels of US\$40 million (see Gruben et al.(1993)). For securities firms, minimum capital requirements are US\$10 million. Finally, in the case of insurance services, entry can occur either through the establishment of operations or equity participation. As a practical matter, the presence of foreign entities in the insurance sector is already quite large even if only as minority shareholders, for the moment.

Table 8
COUNTRY SPECIFIC COMMITMENTS UNDER NAFTA IN THE CASE OF FINANCIAL SERVICES: FORMS OF LIMITATIONS TO ENTRY INTO MEXICO

Type of Service	Aggregate Market Share ¹⁸		Individual Market Share Caps ¹⁹
	Initial Limit	Final Limit	
1. Banking	8%	15%	1.5%
2. Securities ²⁰	10%	20%	4.0%
3. Insurance ²¹	(see footnote ²²)		
4. Factoring and Leasing	10%	20%	None
5. Finance Companies	3%	3% ²³	None
6. Other Financial Service and Companies ²⁴	None	none	None
7. Payment System Protections	25% ²⁵	NA	NA

Source: The NAFTA agreement, Annex 1401.6

¹⁸ Stated as percent of total capital for foreign and domestic entities given the relevant definition for the service in question. The numerator in the ratio applies to capital of all foreign entities taken together. Limits are increased by equal increments annually, over the 7 year phase in period.

¹⁹ Stated as a percent of total capital where this concept differs across banking, securities, insurance, non-bank banks, (e.g. finance companies).

²⁰ The NAFTA agreement does provide for possible entry (2 years after the agreement goes into force) of limited scope securities firms, whose powers would be limited relative to existing Casas de Bolsas.

²¹ Applies to Casualty, Life and Health Insurance companies.

²² The aggregate market share limits for foreign insurance companies wishing to provide services are 6%, 8%, 9%, 10%, 11% and 12% respectively between January 1, 1994 to January 1, 1999. As an alternative, foreign entities may enter the Mexican Insurance Market in an entirely different manner – involving a phased in equity interest in a new or existing Mexican Insurance Company. In this case, the Mexican equity interest in the company cannot be less than the following percentages over the 6 year phase in period. There are 70%, 65%, 60%, 55%, 49%, and 25% that go into effect as of January 1, in each year.

²³ The condition on finance companies or non-bank banks is stated as a percentage of the sum of all aggregate assets of commercial banks plus aggregate assets of all types of so-called limited scope financial institutions. These limited scope financial institutions may be established in Mexico to provide "separately" consumer lending, commercial lending, mortgage lending, or credit and services on terms no less favorable than those applied to Mexican domestic firms. These limits exclude lending by foreign affiliates of auto-manufacturing companies with respect to sales of their vehicles.

²⁴ Includes bonding services, warehousing services, investment management services, and foreign exchange related services (i.e. casa de cambios).

²⁵ This part of the treaty specifies the limit as the capital of foreign commercial bank affiliate as a percent of the aggregate capital of all commercial banks in Mexico. If the percentage exceeds the threshold, Mexico can request consultations to limit entry and reduce "adverse" effects. Adverse effects can be associated with threat of control of domestic payments by foreign institutions or effects on independence of Mexican monetary and exchange rate policy.

46. In the area of banking services offered by non-bank banks, special limited scope financial institutions can be established. These companies cannot bundle together financial services and can only provide consumer lending, commercial lending, mortgage lending, or credit services "separately". Enforcing this restriction may well be difficult in practice.

47. Finally, the treaty provides for the immediate provision of bonding, warehousing, investment management, and foreign exchange related services by foreign institutions with no entry limitations to Mexico.

48. *Cross Border Financial Services:* Although cross border provision of certain financial services has occurred in the past, NAFTA calls for the mobility of consumers of financial services. Although countries do have to permit consumers to access financial services offered by providers -- regardless of country of origin -- this does not permit solicitation. Each country can define "solicitation".

49. Another area of importance is the stand-still provisions which do not permit a NAFTA country to introduce new provisions which would limit cross-border provision of financial services.

50. *Other Provisions:* Among the most important other provisions (see Glossary for definitions and Bachman (1993) for detail) are the transparency, dispute settlement, and reservations and exclusion provisions. The transparency provisions require all NAFTA countries to solicit comments and give advance notice in respect to changes in law or regulations relating to financial services. The dispute settlement provisions define a set of steps involving arbitration if needed to settle disputes.²⁶ Finally, the reservations and exclusion provisions protect the right of NAFTA countries to take actions inconsistent with the agreement if they threaten safety and soundness of the financial system or the pursuit of monetary and exchange rate policy. Questions arise here as to how to ascertain when such reservations will be legitimate.

III. How Will NAFTA affect Efficiency of Financial Service Provision and Capital Flows?

51. Given the setting laid out in the previous section, how will NAFTA most likely affect the efficiency with which financial services will be provided and the flows of capital more broadly? To address these types of questions, this section examines a number of channels through which NAFTA will affect behavior of financial service entities and capital flows. Obviously, these considerations are not independent of each other; a solvent and efficient financial system will create greater incentives for flows of capital to Mexico.

52. NAFTA will have important implications for capital flows to Mexico and for the efficiency of its financial sector. First, by reducing "reversibility" of policies and by making policies more predictable, it will increase capital flows (Section III.A). Second, by fostering competition and, more broadly, contestability, it will cause a far more rapid process of financial integration than has currently been assumed, with important implications for capital flows (Section III.B). Third, it will create stronger incentives for the rapid upgrading of supervision by

²⁶ The exact mechanism for dispute settlement and the role of technical experts in cases of disputes relating to financial services still had to be further defined in implementing legislation.

Mexican agencies (Section III.C). Finally, it will have significant effects over time on the quality of information available to market participants for the purposes of self-regulation (Section III.D).

A. Reduced Reversibility of Policies and Predictability

53. NAFTA will consolidate Mexico's structural reform program by generally making it less reversible and by increasing the predictability of policies. Irreversibility stems from the difficulties involved in undoing what was agreed in NAFTA, e.g., restoring tariffs. In turn, increased predictability is likely to result from the economic pressures that increased economic interdependence will put on many other policy areas which need not (and often) are not an explicit part of NAFTA. e.g., streamlining regulatory procedures, law enforcement, etc. By reducing the risk of a policy reversal, and by encouraging policy harmonization and predictability, Mexico will be able to attract far more foreign capital and investment. The following policy areas are likely to become more predictable and less reversible under NAFTA:

54. *Trade policy:* The reimposition of a tariff or quota eliminated under NAFTA will face opposition not just in Mexico but also, through the different mechanisms of conflict resolution, from interested foreign parties. As specific policies agreed under NAFTA are tied to each other, it will no longer be possible to change a piece of the puzzle without changing the rest. Articulating new coalitions of interests to dominate coalitions of affected parties will become an increasingly complex and difficult task. NAFTA will also create incentives for its members to homogenize their external tariff with third countries, i.e., it will encourage policy harmonization. If, for example, Mexico's tariffs for capital good imports from Japan were twice the US level, it could affect adversely the location of a new firm in Mexico.

55. *Fiscal policy:* The growing financial integration of Mexico to the US and Canadian economy will increase Mexico's vulnerability to changes in the perception of its macroeconomic situation. This implies, among other things, growing penalties for possible departures from stable fiscal paths. While NAFTA does not entail formal commitments to specific tax policies, tax arbitrage will penalize those policies that depart from tax harmonization.²⁷ On the expenditure side, the establishment of government procurement procedures under NAFTA will exert a permanent external pressure on the government to abide by procurement regulations agreed with the other NAFTA countries. This too has favorable implications for fiscal discipline.

56. *Financial Sector Policies:* NAFTA will also have very important implications for the irreversibility of financial policies. For example, the most favored nation clauses and national treatment provisions of the treaty, coupled with the transparency provisions that require advance notice to interested persons to comment on domestic financial legislation and the provisions for settlement of disputes, can limit the extent of reversibility. Perhaps, more importantly, the provisions relating to market access and to cross-border provision of services (see Section III.B below) have been designed in a way that try to limit "back-tracking" on domestic financial sector

²⁷ Mexico has already gone a long way during the 1980s in modernizing, simplifying and improving the administration of its tax system. For a good treatment of some outstanding tax issues that Mexico will need to address as a result of the enactment of NAFTA, see the work of Gordon, R. in Musalem et al. (1993).

policies.²⁸ A good example is the so-called "stand-still" obligation relating to cross-border provision of financial services. This provision would not permit NAFTA countries to introduce "new" measures restricting cross-border sales or consumption of financial services.

57. The collective effectiveness of the above provisions will depend critically upon the monitoring capability of the parties of the agreement. In this context, the provisions that specify penalties for non-observance and the reservations and exclusion clauses are critical. Reservations or exclusions to provisions within the treaty may be obtained for (i) prudential reasons; (ii) in pursuit of monetary or credit policies; and (iii) subject to conditions relating to exchange rate policies. These clauses could appear to give Mexico fairly wide latitude to reverse policies if such conditions are broadly interpreted. However, it must be remembered that the large dependence of Mexico on foreign non-debt creating capital flows would limit the degree to which Mexico will want to employ these clauses.

58. *Legal Reform and Judicial Process:* Many legal procedures and processes which are not an explicit part of NAFTA, will have to be streamlined, Mexican law enforcement will have to improve, and several critical laws may have to be harmonized; delays or departures from this trend will slow down the pace of investment and modernization of Mexico. NAFTA will make the need for these changes more obvious and could alter the political economy incentives to favor their implementation. Eventually, these changes could turn out to be more important than NAFTA per se.

59. For example, increasing pressure will exist to further modernize the legal framework relating to the corporate sector in such areas as bankruptcy, law of negotiable instruments, and the law relating to secured transactions. There is significant evidence that the present legal framework and the forms of self-regulated monopolies supported (e.g. notaries or receivers), as well as related problems in many forms of registries, substantially increase transactions costs and hinder growth and investment.²⁹ NAFTA will place increasing pressure to break such monopolies that are in part supported by that subset of the legal profession that currently profits from the present legal framework.

60. *Property Rights and Confiscation:* A very critical concern for foreign investors in all countries relates to confiscation and the degree to which different forms of property rights are preserved in their equity or other forms of investments in business enterprises. This is important whether in respect to the claim on the flows of revenue from investments or in respect to definition of intellectual property. The NAFTA treaty will act to provide more certainty in respect to these rights through several channels. First, the treaty tries to limit the events under which expropriation of investments could occur and spells out the conditions under which

²⁸ For example the treaty specifies that a NAFTA country cannot adopt any new measures restricting cross-border financial services that are permitted by that NAFTA country on the date the treaty enters into force.

²⁹ There is a need to radically improve Mexico's many registries that serve as a key source of information to financial market participants. As of now, Mexico's registries relating to land, real property, vehicles, commercial registries, warehouse registries, etc. do not function particularly well. Moreover, notaries, (Notarios) and receivers (sindico) are legally mandated monopolies that greatly increase the costs and hinder efficiency of undertaking secured transactions or bankruptcy proceedings respectively. For example, problems with the registries, combined with the notary system, result in extremely high costs to lenders to perfect security interests in collateral. For example the costs of perfecting a security interest in a mortgage can be 6% of the value of the loan extended.

investors would be compensated (i.e. according to the "fair" market value).³⁰ Second, policies for review of acquisitions of companies inclusive of financial service companies will be simplified and made more automatic. Third, payment transfers and remittances of profits, dividends, and other payments will be free and subject to choice of currency by the investor.

B. Financial Integration, Competition, and Efficiency

61. The means through which the NAFTA accord will increase contestability and efficiency of provision of financial services can be divided into three distinct channels: (i) improvements in the efficiency and quality of financial services provided; (ii) foreign investment in entities providing such services in Mexico; and (iii) cross-border provision of financial services.

62. *Efficiency and Quality of Financial Services:* The success of NAFTA can ultimately be measured by the modernization of Mexico. During Mexico's unilateral opening of its trade in the 1980s, Mexico's manufacturing sector was increasingly exposed to foreign competition and modernization. Therefore, the more dramatic implications of NAFTA are more likely to be observed in the service sectors and in agriculture (although the opening of some markets for manufacturing products in both Mexico and the US will also have important implications for the modernization of manufacturing as well). Mexico's modernization needs in agriculture and in services is huge as measured by price differentials between Mexican and US; e.g., until recently, maize prices in Mexico were about 80 percent above the international price (price guarantees were replaced by an income support scheme in late 1993). Cargo transportation costs in Mexico are 2 to 3 times the US level. Financial margins of intermediation are about 2 times the size of those in the US in the case of commercial banking spreads (See Annex 1) and transactions costs associated with underwriting securities issues are also 2-3 times greater in Mexico. NAFTA will foster the need to modernize these sectors and, along with it, the need for greater financial resources. This, in turn, will require a more efficient financial system.

63. *Foreign Entry in Provision of Financial Services:* A number of authors have noted that NAFTA's access limitations, although temporary, combined with "securities or capital market illiquidity" that forces great emphasis on relationship banking will greatly limit competition to Mexican commercial banks. This point is highlighted in the case of retail banking services (see Gruben et al. (1993), and Garber and Weisbrod (1992)). Moreover, it is correctly argued by Gruben et al. (1993) that minimum capital regulations which apply in Mexico to establish a bank (US\$20 million) or securities firms (US\$10 million) may be far more binding constraints to entry than the NAFTA access limits.³¹ Finally, the individual share caps of 1.5 percent for banks or 4 percent for securities firms insure that the largest Mexican financial groups cannot be acquired by foreigners over the phase in period.³²

³⁰ The accounting principles used to determine "fair market value" would not be inconsequential. This is because differences exist between Mexican, U.S., and Canadian generally accepted accounting principles.

³¹ As in the case of commercial banks the level of this minimum capital requirement will discourage entry by small and sometimes efficient U.S. or Canadian securities firms. Similar issues exist in the case of smaller Texas border banks (see Gruben et al. (1993)).

³² After the phase in period ends at the beginning of the year 2000 no such limitations will be in force and a market for control will provide another dimension of economic discipline for Mexican financial conglomerates.

64. However, despite the apparent impediments to this form of financial integration implied by the NAFTA treaty, such arguments neglect to examine how entry into certain non-banking service areas may break down this segmentation. The following three examples are illustrative.

65. First, consider the case of warehousing services which will be liberalized immediately. New legal provisions introduced in 1993, as noted above, permit warehouses to finance depositors of goods and merchandise by offering loans collateralized by these products. Warehouses are also permitted to obtain loans and credits from national or foreign credit institutions or insurance companies or to issue subordinated debt instruments. Under these conditions, one would have to ask how different a set of financial services a multi-national grain trading company will offer in relation to a typical "non-bank bank" that is subject to access limits. Such institutions will compete with commercial banks for agro-industrial accounts and accounts of more wealthy agricultural producers.

66. Second, the freedom to offer investment management, advisory services, underwriting services and mutual fund products, will begin to imply competition for commercial banks even in areas like retail banking services. This will occur as the foreign investment management company solicits business from its clients for its offshore retail banking unit. Also if the transactions costs of offering these services are below that entailed in processing bank loans corporate borrowers may increasingly seek to issue securities and avail themselves of foreign financial services to place these securities in local Mexican or offshore markets. To remain competitive Mexican financial groups will have to offer a bundle of services (based on their overall correspondent relationship) that is appropriately priced to entice borrowers to remain with the group. This will improve the efficiency with which retail banking services are provided. Similar considerations would apply to non-bank banks since the number of such institutions that will operate in Mexico may well be large enough as to call into question the ability of Mexican regulatory authorities to ensure that these institutions are "limited" in scope.

67. Third, foreign entry in combination with certain domestic policy reforms described in Section IV, can also act to reduce the problems of "illiquidity" in Mexico's securities markets. This can occur through the affects of NAFTA on the supply or demand for private securities. The supply of securities will be increased by the presence of entities such as foreign non-bank banks (e.g. GE capital) , warehouses etc. that will fund some portion of their local operations through securities issues in Mexico's private securities markets.³³ In addition, the desire of Mexican firms to remain competitive, and expand into US or Canadian markets, given NAFTA's trade provisions, will increasingly require that they finance themselves directly in Mexico's debt and equity markets as opposed to only utilizing retained earnings or bank debt.³⁴ It should also be recognized that the implications of NAFTA for improving the quality of information about firms (see Section III.D below) will also be critical in increasing the extent of initial public offerings of debt or equity in the Mexican markets. The demand for private securities offerings will continue to be stimulated by direct foreign portfolio investment that may increasingly move beyond CETES to rated securities issued by Mexican firms locally. Here the role of foreign

"investment management" companies that will not face entry restrictions under NAFTA will be highly important.

68. Finally, perhaps as important as the above considerations is the fact that the access limits under NAFTA outlined in Table 8 above may not be binding in respect to entry.³⁵ It has been argued by negotiators of the treaty that the limits were set with the idea that they would not be binding. This would imply that competition will be much fiercer under this dimension of integration than usually thought. In this context the experiences of Argentina, Spain, and Canada were examined by Negotiators. This argument needs to be more carefully examined empirically than has thus far been the case.³⁶

69. *Cross Border Provision of Financial Services:* Under NAFTA, the provision of cross border financial services will be permitted. However, provision of such services cannot be solicited from consumers in a different country than that of the provider. Economically, legalizing the provision of cross-border services without the solicitation restriction would constitute an important source of competition and contestability in the financial service sector.³⁷ This would be true regardless of the market access limitations relating to certain services as discussed above.

70. For example, in the case of securities brokerage services, dematerialization of securities and advances in telecommunications may make it possible for brokerage services to increasingly be provided via foreign offshore brokerage firms. In this context, the market-access limitations might have the effect of creating incentives for a foreign brokerage firm to solicit business for its offshore operations through its limited scope financial services entity or brokerage house permitted under the NAFTA treaty.

71. However, the extent to which this potential can be realized in areas where market access is limited (e.g. banking, securities, and insurance services) will also depend on both the definition of "solicitation" and the power or desire of the Mexican Government to enforce actions in such cases. It would seem unlikely that enforcement capacity will be sufficient to hinder

³³ These entities will not be legally allowed to undertake domestic funding operations through issuance of deposits in part to ensure that the Government safety net is not further extended beyond its current width. See section IV that discusses the importance of better defining the extent of the Mexican Government safety net.

³⁴ Signs of this are already occurring as the real growth in commercial paper issues (from an admittedly low level) was 50 percent in 1993.

³⁵ The authors wish to thank Patricia Armendariz for pointing this out.

³⁶ An interesting exercise would be to examine the contestability of the Mexican banking system through application of the methodology of Sheffrin (199)

³⁷ In view of possibly more expensive financial services now provided in Mexico, the provision of cross-border services could have an adverse impact on Mexico's current account deficit with implications for the management of Mexico's macroeconomic policy.

foreign providers of financial services from soliciting through whatever distribution network of offices is developed to offer investment management, brokerage, or even certain forms of retail banking services given the eventual growth of electronic banking products.³⁸

72. In this section we have argued that NAFTA is going to foster efficiency through competition. Increased efficiency, however, is also going to stem from increased pressures on the authorities to improve supervision and reduce regulatory competition.

C. Supervision and Regulatory Competition

73. The NAFTA accord has significant implications for the incentives of supervisory agencies and regulatory competition in Mexico, the United States, and Canada. As suggested in Musalem et al.(1993), the NAFTA treaty will require more coordination between supervisory authorities and increased sharing of information. In addition, it will start to reduce incentives for regulatory competition across countries. It will foster greater harmonization of prudential regulations in important areas such as capital adequacy, valuation and regulatory accounting principles, related party transactions, and conflict of interest provisions, etc. At the same time, NAFTA will heighten the need to undertake critical reforms in the areas of prudential regulation that are enforceable.³⁹

74. The NAFTA accord will also have very important implications for how financial regulations are formulated in Mexico through the transparency provisions. Specifically, the requirement to solicit comments from interested parties (within and outside Mexico) when issuing new legislation and regulation, will change the often informal and sometimes unilateral process used to formulate financial legislation and regulation that has at times existed in Mexico. Opening up this process will increase the credibility of the legal and regulatory framework through wider acceptance by those subject to the regulatory standards imposed.

75. In a more specific sense, NAFTA will force the Mexican Government to rapidly upgrade supervision and accounting processes to permit supervision to at least the level of the financial holding. This will be precipitated by the provisions of the treaty that call for regulatory agencies to act on applications within a period of 120 days from time of reception. Thus, once the treaty is in effect, the US and Canadian regulators will be forced to act on Mexican commercial bank applications to establish a presence in the United States and in Canada. In this context, approval will require that Mexican authorities demonstrate that they have the capability to undertake adequate supervision.⁴⁰

³⁸ Arguments of this type can be taken too far and it is certainly the case that there are some forms of financial services that will tend to require more of a local presence than others. This would still hold in the case of many types of consumer banking services but would be less important in the provision of certain forms of insurance or pension fund management services etc. depending upon the relative sophistication of the consumers of such services.

³⁹ See Section IV. A. that examines how lack of change in such regulations could potentially increase systemic risks for the Mexican financial system.

⁴⁰ It could be argued that such incentives have already existed to the extent that U.S. regulators can deny applications if they do not find evidence of proper supervision procedures for the Bank in question. This is the case

76. Pressure will also be created under NAFTA for Mexico to move to a far more modern approach to supervision rapidly. One example is the legal requirement in Mexico that requires each commission to "define" how entities are to set up their general ledger (Catalago de Cuentas), inclusive of sub-accounts. In Mexico inspectors must verify that accounts are prepared as specified. Financial institutions in the US and Canada are subject to regulatory reporting requirements and certain regulatory accounting principles, but regulatory agencies do not interfere with how financial institutions define their general ledgers. As NAFTA permits entry by foreign entities and as Mexican GAAP and auditing standards improve -- as has already been occurring -- such legal restrictions will not be necessary. Additionally, the implied costs to Mexican financial institutions of keeping different ledgers for risk measurement purposes and to foreign entrants will create great pressure for the Mexican government to modernize its approach to supervision.

77. NAFTA will also create fewer incentives for regulatory arbitrage or competition and the not-insignificant dead-weight loss to society that can result. Such pressures will manifest themselves through greater provision of cross-border financial services. As cross-border trade in financial services expands and regulatory arbitrage opportunities become more evident and costly, authorities will have incentives to promote greater harmonization in prudential regulations.⁴¹ Moreover, the form and extent of information provided by supervisory agencies in Mexico relative to the United States and Canada may become somewhat more homogeneous.

78. In sum, improved supervision, coupled with less regulatory competition will increase operational efficiency and, thus, lessen systemic risks and increase the interest of foreign investors in Mexico. Relatedly, better supervision of financial conglomerates will permit quicker exit of marginally insolvent institutions, thereby increasing overall efficiency and competition.

D. NAFTA, Self-Regulation, and Information Disclosure

79. A last channel through which NAFTA will act to increase overall efficiency of the financial system is by creating incentives for self-regulation and improved quality of information for both providers and consumers of financial services.

80. Typically, the implications for competitiveness of Mexico's financial system implied by NAFTA, focuses on the prospects for greater entry of financial entities. However, insufficient attention has been placed on the effects of NAFTA on the quality of information about borrowers or intermediaries that will be available to both final consumers of financial services and market participants i.e. providers. The degree to which self-regulatory organizations actually self-police and monitor the activities of different financial entities -- as opposed to restricting entry as a result of NAFTA -- is also of great importance. Higher quality and timely information about final borrowers and intermediaries can reduce the costs of financial intermediation and will increase the confidence of foreign investors. In addition, such information will facilitate improved external supervision and better self-regulation by entities such as rating agencies or auditors etc.

under the Foreign Bank Supervision act that enables U.S. regulatory authorities to de-register foreign agencies or branches if there is evidence of inadequate supervision.

⁴¹ Similar arguments of course apply to tax arbitrage and incentives to harmonize structure of taxation.

81. NAFTA will create pressures for improvement in the *quality of information* available about both borrowers (from banks or through public offerings) and about financial conglomerates themselves through several channels.

82. First, the entry of foreign institutions into the brokerage and underwriting business in Mexico, coupled with the expanded presence of international rating agencies and accounting firms that will have their reputation at stake, will be very important. Entry of these entities will, in effect, create much stronger incentives for locally owned brokerage firms to take responsibilities relating to "due diligence" seriously. This is because entry of foreign brokerage firms will force a raising of the standards in which accounts or financial statements are prepared and assets valued . These effects will filter down to small and medium enterprises to the extent that these companies eventually list on Mexico's second tier market for equities and debt offerings.

83. Second, NAFTA will improve the information regarding commercial bank relationships with borrowers. This will occur when it is realized that domestic legislation changes in Mexico created entities akin to credit bureaus. Foreign entry into provision of such services as credit scoring will greatly improve the operation of Mexico's credit markets and the quality of portfolios and solvency.⁴²

84. Third, permitting entry to foreign investment advisors, if properly supervised and registered, will also have significant effects upon the information available to consumers of financial services.

85. Finally, NAFTA will also create incentives for improvements in *self-regulation* by such entities as the Bolsa de Valores, OTC participants, Clearing and Custody organizations (e.g. CECOBAN or INDEVAL), rating agencies, auditors, appraisers (valuers), the Mexican Bar association and even the self-regulating agency inspecting warehouses (Almacenes Generales de Depositos). The pressure to upgrade these organizations and set more objective standards for entry will occur as foreign entities increasingly enter these service areas. For example, US accounting firms and rating agencies as well as technical specialists in such areas as appraisals or actuarial sciences see massive opportunities emerging for the provision of these services in Mexico. Demanders of these services will include the financial conglomerates themselves as well as end-users of these services such as corporations and households.

IV. How does NAFTA Heighten the Importance of Certain Domestic Macroeconomic and Microeconomic Policies?

86. While NAFTA is likely to result in greater capital inflows and a more efficient system of financial intermediation, it also heightens the importance of making critical changes in certain domestic policies. Of particular importance are changes in certain financial policies, at a microeconomic level and in the exchange rate and monetary policy at a macroeconomic level. This section argues that lack of a concerted effort to give attention to this set of domestic policies

⁴² The rather high proportion of credit card obligations not repaid have been the result of the lack of information sharing by Mexican banks.

and their complex interrelationships could increase systemic risk for the financial system and, potentially create macro-economic instability.

A. Financial Policies

87. If greater financial integration is not to compromise macroeconomic stability or create greater systemic risk, careful attention needs to be given to a set of highly inter-related domestic financial policies and towards improving supervision.⁴³ The changes in these domestic financial policies needs to take careful account of the increasingly complex structure of financial/industrial groups (see Section II above) and of the expansion that has taken place in Mexico in banking powers. If well designed and "enforceable" such policy changes can greatly mitigate the risks that can be associated with greater financial integration.⁴⁴

A.1. Design of Prudential Regulations

88. The NAFTA accord will heighten the need to completely revamp the prudential regulations now in place in Mexico that apply to financial groups, or even self-regulatory organizations such as exchanges or Custody and Clearing Corporations as noted in section III. C. Extremely important changes need to be undertaken quickly in these areas or the entry of foreign entities coupled with lack of adequate capacity to measure and manage risk in relation to capital will heighten systemic risk. This is because current concepts of capital as well as techniques for valuation are asymmetric across types of institutions and in respect to like assets. These inconsistencies can create dis-incentives for adoption of better risk measurement and control systems by Mexican financial groups. For example, under current capital guidelines for capital the Basle guidelines apply to commercial banks. Capital charges for equity holdings by a Bank are much laxer than that applied to the brokerage firms where "haircuts" (deductions form full market value) are undertaken if the shares traded are not liquid. This may partly explain the movement of equity trading form the brokerage firms to the commercial banks within financial groups.

89. The complex financial structures of financial/ industrial conglomerates noted in Section II complicates Government or private monitoring of such institutions. Thus, it makes it more important that prudential regulations in the area of capital, and valuation procedures be redesigned.

⁴³ A detailed discussion of the issues involved in upgrading Mexico's supervision of financial groups -- now divided between three different commissions -- lies beyond the scope of this paper. Extensive work is being undertaken by the Bank and IMF to support Mexican efforts in this area.

⁴⁴ It is important to recognize that any evaluation of existing financial policies must rest upon specific criteria. The work of Levine (1993), Merton (1993), Glaessner and Mas (1992) and Glaessner (1993) suggests several criteria with which to assess financial policies. These include how financial sector reforms affect: (a) financial institution or market monitoring of non-financial firms; (b) private and public sector monitoring of financial intermediaries; (c) the possibility of contagion and systemic risk; (d) the degree of contestability implied by the policy for provision of the financial service in question; and (e) the spectrum of financial arrangements. The analysis below does not undertake this form of detailed review, but is based upon preliminary work in this area applied to Mexico by Glaessner and Levine.

90. In the area of *valuation* the most important changes will involve the need to employ a consistent methodology for valuing assets of the same types across all forms of entities within Mexican financial groups. In this context it will be particularly important to mark assets to market values where possible. Besides facilitating accounting consolidation for supervision purposes or financial analysis of groups by rating agencies, defining such standards coupled with rigorous enforcement can go a long way towards reducing incentives for undertaking illegal practices among related parties within a financial conglomerate. For example, during the ajustobonus crisis of 1992 a number of Mexican financial conglomerates that were sustaining losses on their own-account positions in ajustobonus sold off-their positions at non-market values to their customers via sales to own-managed mutual funds.⁴⁵ If the commercial bank had been forced to undertake these transactions at market values it would have had to have shown a loss in its sale of the securities to the affiliated mutual fund it managed.

91. In the area of *capital adequacy* the structure of financial conglomerates makes it important to make efforts to adjust commercial bank capital for certain market risks associated with their trading portfolios. Among the most important sources of such risk are exchange rate and interest rate risk. Determination of the capital charges to use as well as the means of measuring the consolidated exposure of the bank (i.e. netting procedures) inclusive of its foreign agencies and branches is an area where improvements must be made in the near term. In addition, capital regulations for brokerage firms do not presently link risks of positions in all types of securities with capital (with the exception of equities) even via some form of net-capital rule as is now used in the United States or United Kingdom. This is aside from issues of how to define capital adequacy standards for Mexican securities subsidiaries that would be consistent with the market risk capital charges defined for Mexican commercial banks in the future.⁴⁶

92. These market risk adjustments only apply to the trading portfolios of Mexican financial institutions. The adjustments do not address overall interest rate risks (IRR) being run by Mexican Banks since no account is taken of the very large lending portfolios at these institutions. However, in this area there would seem to be real questions whether Mexican authorities would want to actually force Mexican financial conglomerates to hold additional capital if certain measures of (IRR) were at a certain level. Since issues of this type are still under discussion in various fora, it would seem essential that Mexican prudential regulations do no more than require financial conglomerates to prepare reports showing IRR under some well defined and agreed upon rules (for netting positions and accounting for "diversification").⁴⁷

93. Finally prudential regulations relating to conflicts of interest and information disclosure will also be in need of revision given the many forms of financial services inclusive of

⁴⁵ Note that aside from the valuation problems in related transactions the assignment of transactions for own account and third parties (e.g. the segregation of accounts when acting as a principal and agent) is also in need of reform. The technical term for this type of transaction would be "dumping" of securities.

⁴⁶ Here the problems in reaching agreement (see the Basle Committee proposal for Market Risk) among regulatory authorities in the United States has hindered development of a uniform approach. By contrast the capital adequacy directive defined by the EC advocates application of the same procedures for determining capital charges for market risks, in the case of commercial banks and brokerage houses.

⁴⁷ Current proposals issued as of September 1993 by a U.S. interagency task force suggest that even the measurement of IRR is in need of more thought before being adopted in Mexico or the United States.

investment banking services that can be provided through the commercial banks. However, reforms in this area are not as pressing as reforms in the aforementioned areas.⁴⁸

94. Reforms in these areas will be hastened by NAFTA to the extent pressures are created for the harmonization of key prudential regulations in all the above mentioned areas. Section C above highlights this point.

A.2. Redefinition of the Safety Net

95. The recent set of legislative reforms adopted in Mexico during 1993 began to redefine the nature of the safety net provided to financial groups. Changes were not only made in the Central Bank's role as LLR, through greater independence, (see section C below). In addition, two newly defined special insurance funds were created for insurance of commercial bank deposits (FOBAPROA) and to provide coverage against losses suffered by investors operating through Mexican brokerage firms (FAGMV) respectively.

96. These funds were set up as special trusts administered by the Central Bank⁴⁹ where the Ministry of Finance is charged with defining the ordinary and extraordinary contributions to be made by either Banks or Brokerage firms to either of these funds under consultation with the Central Bank.⁵⁰ The liability of each Fund (and Government) is not limited to a given subset of depositors or investors. Instead it is left to the Central Bank in consultation with the technical committee to determine the type and amount of deposits to be covered or extent of coverage to provide to investors. Moreover, quotas for the banks are the same regardless of their capital and portfolio risk while in the case of brokerage firms contributions are linked to the number of transactions undertaken on behalf of clients. Finally, in the event that the Central Bank extends resources to a commercial bank or brokerage firm the advances made are collateralized with stock of the troubled bank or other forms of acceptable collateral. This last provision thereby tries to ensure that shareholders are not made whole in resolving banking crises.

97. The current Insurance fund arrangements although an improvement over earlier approaches still suffer from a variety of well-known drawbacks. First, by not linking ex-post loss sharing formulas to the risks undertaken both the free rider and moral hazard problem can arise. In the case of the free -rider problem the tiering in the euro-CD market highlighted in section II. B. of this paper between the largest and smaller banks would suggest that these problems could be significant. Moreover, recent work by Alejandro Diaz de Leon Carillo (1993) based on the use of options pricing theory demonstrates that optimal risk adjusted deposit insurance premia would range from 4.97 % of deposits in the cases of Atlantico, Mercantil and Serfin to .82 and .70 in the cases of Bancomer and Banamex respectively. In the case of the moral hazard problem there will be a tendency for commercial banks with weak capital positions

⁴⁸ Efforts to develop privately managed defined contribution schemes under the SAR will make it necessary to take a variety of actions in this area.

⁴⁹ The Central Bank actually has a fiduciary liability to contributors (e.g. the commercial banks or brokerage firms).

⁵⁰ Normal contributions in the case of the commercial bank quotas paid to the fund are 3 Nuevos Pesos per 1000 Nuevos Pesos of liabilities. Also the determination of the quotas also involves an assessment made by a technical committee that includes representatives from the Commissions as well as the Central Bank and Ministry of Finance.

to lend to riskier clients and to not perform their monitoring function in respect to borrowers. Second, the fact that these insurance funds do not explicitly indicate what size of investor or depositor is covered may reduce incentives for the private monitoring of the financial intermediary or brokerage firm by large investors or depositors.⁵¹

98. A final area where a more explicit definition of rights and obligations may be needed is in the process for resolving bank failures. No well defined set of regulations and law govern the process for bank re-organization and liquidation. It would appear that an actual liquidation would have to fall under the auspices of a receiver under Mexico's bankruptcy law that is in need of modernization. The process is not legally defined to be "extra-judicial" as is the case in many countries. Moreover, the processes used and the degree to which the Central Bank and the Ministry of Finance ensure that equity holders take losses need to be made more explicit. In the absence of such reforms, disincentives can actually be created for different bank claimants (e.g. bondholders, equity holders and depositors) to avert financial problems by pressuring management.⁵²

99. Such findings would tend to heighten the need for a revision to valuation and capital regulations and a strengthening of external supervision in order to offset these free-rider and moral hazard problems. This would be aside from some changes in current design of the Funds to more explicitly define the nature of the Government liability. The NAFTA provisions as argued in section III. C. will act to hasten implementation of these reforms.

A.3. Policies to Increase Liquidity of Domestic Securities Markets

100. Asset price volatility and systemic risk could rise under increased financial integration unless the liquidity of domestic securities markets is improved. This lack of liquidity could become more important given the duration mismatches that some financial institutions are starting to take regarding domestic interest rates. To improve liquidity of domestic securities markets requires actions to increase both the demand and supply of "private" securities in Mexico. In addition, it will require certain actions that will permit well capitalized intermediaries to make a market in such securities or to use them as collateral in repurchase agreements.

101. To increase the supply of securities offered more effort needs to be focused on the reasons why firms of all sizes have not gone to the capital markets more directly through initial public offerings. Many firms have favored financing through retained earnings or commercial bank finance vs. issuance of commercial paper (see Garber and Weisbrod (1991)). However, these trends appear to be changing as commercial paper offerings by both non-financial companies and financial groups increased by 50 percent in real terms in 1993. Moreover, data available from the Mexican Securities Exchange Commission (CNV) suggests that as many as 1000 new small and medium size firms may become eligible to list on Mexico's new second-tier stock exchange. However, in this latter case only six small to medium sized firms have listed on

⁵¹ See Levine (1993) or Glaessner and Mas (1992) that also makes this point.

⁵² See Glaessner and Mas (1992) for Latin American experience and examples of how the banking law and regulations can be designed to create incentives for quick resolution of financial crises, through more effective private and government monitoring of financial intermediaries.

the exchange. In part this may be due to the fact that development banks continue to play a very important role in extending direct credit or financial guarantees to small and medium sized firms (the liabilities of development banks grew by 50% in real terms in 1993).⁵³ Similarly, the public policy issues relating to increasing the supply of securities through various forms of asset securitization (as is already underway in the case of credit card and trade receivables) also need to be studied.⁵⁴

- (a) Legal and regulatory reforms to clearly define the rights of the different parties to such transactions. For example, the types of institutions that could act as sponsors, issuers, servicers, and trustees must be defined along with information disclosure requirements and the rights and obligations of these different parties. Permitting these different functions to be separated in the Mexican context could be problematic if it weakens incentives for the institution originating the asset not to undertake adequate credit analysis and monitor borrowers to insure repayment;
- (b) The institutional infrastructure needed to support the safe insurance of these forms of securities needs further development. This would include information about the issuer and histories relating to the assets (e.g. default histories and pre-payment information on mortgage loans, payment history on receivables, etc.) further development of local rating agencies, development of appraisal companies and title insurance in the case of securitization of mortgage loans;
- (c) Complicated accounting and tax treatment issues would have to be investigated that relate to the resale or assignment of the original assets and securities. Likewise, the incentives created for the use of such transactions by financial group will also depend upon how they would be treated in the context of prudential regulations relating to capital adequacy; and
- (d) The issue of the government role in credit enhancement through offering guarantees of different types needs examination. In addition, the setting up of a wholly private secondary mortgage bank to provide liquidity in this market would need to be examined.

102. In order to increase the demand for securities, Mexico will be required to develop larger sources of longer term private savings and "institutional investors". As noted, the insurance sector is very small in Mexico and actions to reform Mexico's Old Age Security and Health systems could have significant implications for the development of new insurance products (e.g. annuities, disability coverage etc.). There is a need to re-evaluate the extent and types of coverage now provided by the Mexican social security institute (IMSS). Introduction of the compulsory privately managed defined contribution scheme (SAR), with \$U.S. 3 billion currently invested in Government securities by the Central Bank, coupled with the rapid

⁵³ Important issues arise as to how development banks in Mexico can play a more effective role in assisting rather than retarding the development of the second-tier market for equity issues by small and medium enterprises.

⁵⁴ As discussed in Glaessner (1992) in more detail, reforms in four related areas would have to be implemented to ensure that securitization of certain forms of domestic assets does not increase systemic risk and the possible need for government bailouts. Areas where reforms would be needed would include:

development of Mexico's voluntary occupational pension plans (with US\$7 billion of assets under management) will also increase the demand for longer term securities offerings.

103. Finally, aside from actions to increase the supply and demand for securities, actions can be taken to improve liquidity of the existing set of private securities traded by permitting repurchase agreements to be undertaken where private securities (subject to certain ratings criteria) can serve as eligible collateral. This could improve the liquidity of private securities issued by non-financial corporations and increase the attractiveness to corporations of direct placement of commercial paper or other forms of debt issues in domestic markets vis a vis commercial bank borrowing. However, it is important to note that there could be good reasons to not permit the Mexican Central Bank from participating in such transactions.⁵⁵

A.4. Introduction of Derivative Instruments

104. As noted by Mathieson and Rojas Suarez (1993), the opening of the capital account and the financial service industry can be accompanied by increased volatility in asset prices. There is no doubt that the volatility of asset prices in Mexico has tended to exceed that of the US and Canada.

105. The development of standardized forms of derivative instruments subject to proper self-regulatory and supervision safeguards could provide a means for private agents to share these risks at low transactions costs.⁵⁶ However, without adequate risk safeguards in place (particularly on the stock exchange or OTC market or sufficiently well developed financial infrastructure in such areas as clearing of high volume payments) introduction of these financial innovations can actually increase volatility of asset prices given the leverage that transacting in such contracts can permit.⁵⁷

106. More generally, the legal system in Mexico has made it difficult to develop derivative instruments. For example, the legal concept of novation (which permits an organization like an exchange to assume the contract of the seller on behalf of the buyer) does not appear to be defined in Mexico. This implies that modern clearing arrangements involving the establishment of a clearing corporation that would stand between counterparts to securities trades is not used. Instead, over-the-counter markets have been used for derivative instruments. A central, separate clearing corporation where clearing members would be required to hold larger capital positions than those trading derivative contracts on the floor of the exchange would have advantages for both regulators and market participants.

⁵⁵ For example, the Central Bank would be faced with the prospect of having to choose across the paper of different financial groups to both purchase/sell or repurchase. This could have a destabilizing effect if economic agents viewed this as signalling the relative solvency of different financial institutions.

⁵⁶ Mexico already permits trading of exchange traded warrants on equities and forward contracts in peso/dollars (out to 1 year) through over-the-counter transactions. Moreover, offshore exchanges are used to hedge commodity price risks (e.g. oil). However, no domestic interest rate derivative contracts trade either on the Mexican stock exchange or OTC.

⁵⁷ One example would be to ensure that delivery versus payment is possible in OTC securities transactions. At present this does not appear to be the case notwithstanding the electronic payments system (SIAC) that is now in place in the Bank of Mexico.

107. This organizational structure could permit better management and control of risks than in an OTC environment.⁵⁸ In addition, it could better facilitate information sharing across exchanges in NAFTA countries. This is because in Canada and the United States Clearing corporations play a significant role in trading of derivative contracts and in existing arrangements for information sharing in implementing risk safeguards in trading of like derivative instruments. If Mexico develops a similar institutional structure for the trading of derivative instruments it would permit arrangements now applied in the U.S. and Canada to be applied to cross-border positions in like derivative contracts undertaken in Mexico.

A.6. NAFTA and Constraints on Foreign Borrowing by Commercial Banks

108. In August 1991 the Central Bank imposed reserve requirements on foreign currency deposits of foreign branches of Mexican commercial banks. The purpose of these reserve requirements was to limit the explosively growing dollar exposure of Mexican commercial banks. Due to the ineffectiveness of these requirements⁵⁹ a ceiling was placed on dollar borrowing as a percentage of total liabilities valued in pesos. Originally, this ceiling was 10 percent with reserve requirements applied to such borrowings of 15 percent that could be held in "liquid" dollar denominated deposits. In November 1992, the 10 percent foreign currency-peso liability ratio was raised to 20 percent. Of the extra 10 percent allowed, 4 percent had to be loaned to exporters or importers of capital goods, and the other 6 percent was temporary (until February 1996, after which time it will have to be gradually cancelled in a period of two years). The impact on foreign borrowing of the November announcement was very limited in view of the fact that most of the large banks were holding foreign currency-peso liability ratios of more than 20 percent. However, this did help some banks to expand their foreign borrowing.

109. Although this measure was not meant as a macroeconomic policy measure, it helped the central bank to curb short-term capital inflows without the fiscal (quasi-fiscal) costs associated with sterilization. Sterilization is costly as the interest paid on domestic obligations issued/sold far exceeds the interest perceived on the foreign assets that the central bank holds. This has been reflected in reduced profits of the central bank, particularly, during 1991.⁶⁰

110. Despite the possible advantages that controls on foreign bank borrowing may have (e.g., avoidance of costs of sterilization), growing pressure against such controls is likely to evolve under NAFTA. Increased foreign participation in Mexico's financial system under NAFTA could make some of these regulations contradict the spirit of NAFTA, e.g., as foreign banks are likely to be more heavily funded abroad. Nevertheless, the dollar exposures of Mexican banks will have to be watched.

⁵⁸ There are obvious trade-offs here in that over-the-counter transactions force risk management to be borne by counterparts themselves. On the other hand, clearing corporations can be set up in ways so that different forms of risks can be adequately managed. See Parkinson et al. (1992) or Glaessner (1993) for a discussion of issues in this area in Latin America.

⁵⁹ The imposition of foreign deposit reserve requirements in 1991 did not prove effective in reducing foreign borrowing of commercial banks. Commercial banks side-stepped the foreign currency reserve requirement by using the US T. Bills (held as reserve requirements) as collateral to increase their foreign borrowing.

⁶⁰ The reason for this lies in the fact that peso-denominated Mexican assets and US dollar/Canadian dollar denominated assets are not viewed as perfect substitutes. This requires Mexican authorities to pay higher yields in sterilizing capital inflows.

111. The key issues here are really supervision and prudential regulation. For example, no arbitrary liability ceiling may need to be imposed on foreign borrowing. However, a bank may have to have its liabilities hedged with assets of a similar currency and maturity or be subject to capital adequacy regulations that account for market risks inclusive of exchange rate risks on the balance sheet (see Section IV.A.2 above). In addition the quality of dollar assets must be checked (i.e. credit risk which is dependent on exchange rate risk in part must be monitored). This will in turn require the existence of credit bureaus that will be hastened under NAFTA (see section III. D above).

B. Exchange Rate and Monetary Policy

112. In November 1991, along with the Pacto renewal, Mexico liberalized foreign exchange transactions and implemented an exchange rate band. The floor of the band was left fixed at the November 1991 level while the ceiling of the band was depreciated at 20 cents a day. In the October 1992 Pacto renewal, the government stepped up the rate of depreciation of the ceiling of the exchange rate band from 20 cents a day to 40 cents a day while the floor of the band remained fixed. Under the October 1993 Pacto renewal, the floor of the ER band remained fixed and the ceiling continued to be depreciated 40 cents a day. By the end of 1994, the ER band will have a width of approximately +/- 7 percent with respect to the (implicit) central parity.

113. The main role of monetary policy has been to support fiscal policy and exchange rate policy to achieve major disinflation in the Mexican economy, while, at the same time, help maintain marked inflows of foreign capital to Mexico. Monetary policy in Mexico is intimately related to exchange rate policy. Namely, once the parameters of the exchange rate band are chosen (based mainly on the official inflation target), there is a limited range of interest rates that is consistent and compatible with these parameters. A key role of monetary policy is to provide conditions for the emergence of such interest rates, while, at the same time, ensuring that the growth of monetary aggregates (particularly, currency in circulation, since the demand for other forms of money is strongly demand-driven) is consistent with the inflation target.

114. Despite the increased flexibility permitted by the exchange rate band, the actual exchange rate has remained virtually unchanged between the 1992 Pacto renewal (except for the short-lived speculative attack on the peso in the week that preceded the NAFTA vote in the US Congress) and the NAFTA ratification by the US Congress in November 1993. This was the result of the fact that the central bank had an inner band of intramarginal intervention of about +/- 1 percent which was flat. After the NAFTA ratification, the inner band was substantially relaxed: its initial width was increased to +/- 3 percent and, while the floor remained fixed, the ceiling was depreciated at the same rate as the ceiling of the official (wider) band, i.e., 40 cents a day.

115. The current policy of widening the exchange rate band and increasing the flexibility of the exchange rate within the band will enhance the effectiveness of monetary policy. This policy acquires special significance in the context of growing financial interdependence which the globalization of Mexico's capital markets is leading to, particularly, under NAFTA. Foreigners already hold around half of domestic government paper and about two-thirds of the stock market capitalization (as measured by the paper which is actively traded). The increased margin of

flexibility in the exchange rate can help to prevent speculative pressures while retaining an exchange rate regime that is not completely a free float, while avoiding potential capital losses induced by forex intervention, given a fixed exchange rate regime or very narrow bands.

116. The case for a wider exchange rate band can also be made on the basis of a once and for all portfolio adjustment. Capital inflows attracted by Mexico's modernization needs will require more downward exchange rate flexibility in order to accommodate (in a non-inflationary manner) potentially larger capital inflows. However, as capital inflows slow down, a more depreciated real exchange rate will be needed. A period of large capital inflows is likely to be followed by a period where larger trade surpluses are required to service the new debt and to remit dividends on the new equity held by foreigners, thus, requiring a more depreciated real exchange rate in the future. The need for an eventual peso depreciation, e.g., if the productivity response to reform is not commensurate with the availability of foreign financing resources, may also stem from the dismantling of tariffs under NAFTA (only partially offset by the dismantling of lower US tariffs).⁶¹

117. The November 8th, 1993 attack on the peso, in part induced by the uncertainties surrounding the NAFTA ratification process in the US Congress, shows that having a wide exchange rate band and occasionally using it (to absorb a shock that requires a peso depreciation) needs not lead to a permanent peso depreciation. A wide exchange rate band can still fulfill a very useful role in the presence of attacks to the currency. In principle, the authorities could have relied only on interest rates, or could have suspended the exchange rate band and let the market forces produce a much larger devaluation. In our view, the reaction by the authorities increased the credibility of exchange rate policy, in that it dealt satisfactorily with the events.

118. From the microeconomic point of view, the increased exchange rate flexibility implies higher exchange rate uncertainty. This may be desirable in its own right insofar as it will discourage speculative short-term capital inflows. Regardless, firms can resort to hedging options such as the forward market of foreign exchange which is now open to all firms and individuals and where maturities have been lengthened to 1 year.⁶²

119. Another implication of having increased exchange rate flexibility is that it is likely to be associated with reduced interest rate volatility, e.g., for a given central bank forex reserve target, a shock that leads to higher capital outflows (inflows) will be absorbed in part by a higher (lower) exchange rate and not just by higher (lower) interest rates. For many banks, this could be important as most Mexican banks are likely to be more exposed to interest rate volatility than to exchange rate volatility (at least at current levels of dollar exposure).

120. Finally, the issue of making the exchange rate more flexible cannot be separated from the realities of the planned integration with the US in the framework of NAFTA. For the reasons given above, the globalization of Mexico's capital and financial markets, it appears that the increased exchange rate flexibility is desirable at least during the transitional phase of the

⁶¹ The need for a peso depreciation would, of course, also be affected by the evolution of differential productivity growth; note that Mexico's productivity is likely to grow faster than the US's (due to a catch up effect) (See Oks et al. (1993) which examines issues relating to productivity growth in more detail.)

⁶² In addition, an informal dollar-peso swapmarket with maturities beyond a year is also beginning.

integration to the US and Canada. The issue of whether in the long run Mexico may benefit from a fixed exchange rate is a different one.

121. Economic integration under NAFTA is likely to increase the proportion of financial transactions which are denominated in US dollars. In this context, having a credible fixed exchange rate or, more extremely, a currency union, may yield efficiency gains as it reduces transaction costs including the cost of hedging due to uncertain exchange rates. On the other hand, fixing the exchange rate will reduce the effectiveness of Mexico's monetary policy (a currency union will totally eliminate it). Preserving an independent monetary policy may be valuable in view of the large asymmetries between the US and Mexico, e.g., Mexico is an oil exporter and the US an oil importer which implies that each country will benefit from being able to respond to an oil shock with different monetary policies. This asymmetry could be offset if there was fiscal cooperation between the two countries; something which right now appears to be far away. In fact, in the area of fiscal policy there is another big asymmetry: at least over recent years, Mexico had a much tighter fiscal policy than the US. If this situation continues, in the end Mexico may end up having high interest rates (under a fixed exchange rate) due to lack of fiscal adjustment in the US. Other conditions which may have to be met to justify a fixed exchange rate/currency union are: achieve inflation convergence; and consolidate advances in the areas of factor mobility and wage flexibility. In particular, labor mobility between Mexico and the US may have to be permitted, something which NAFTA has deliberately kept aside (in spite of all the illegal emigration to the US). It is possible that for the gains to offset the costs, improvements in several areas will have to be achieved first (fiscal cooperation, inflation convergence, factor mobility, and wage flexibility).

D. The Central Bank and Lender of Last Resort

122. Will the central bank role of lender of last resort be affected by NAFTA? By permitting foreign financial institutions to participate in Mexico, NAFTA can potentially reduce the likelihood that it will be called to intervene as lender of last resort. This will be the case to the extent that mainly solid foreign financial institutions enter into the Mexican market and if emphasis is placed on implementing the package of reforms to domestic financial policies outlined in Section IV.A. above. The participation of solid foreign financial institutions can reduce the need for central bank intervention in several ways: by raising the standards of credit risk evaluation and of risk management in general through proper provisioning, etc.; and by potentially increasing the amount of capital beyond what is technically required (under the current BIS regulations) as international institutions will have an incentive to preserve their international reputation.

123. In order to attract the more solid foreign institutions and screen less than solid financial institutions the regulatory and supervisory framework will need to be improved rapidly. Otherwise, there is the risk that the role of the central bank as lender of last resort will increase rather than decline.

V. Conclusions

124. There are clear benefits of opening Mexico's financial sector to foreign competition more rapidly. As we discussed in Section III, this would result in faster improvements in efficiency, lower margins of intermediation, and even larger capital flows during the transition phase currently planned. At the same time, we have also pointed out that even under the present access limits and reservations available under the NAFTA treaty, competition in many areas of financial services (even in retail banking) may be much more fierce than is currently believed. Examining the issue of opening Mexico's financial sector to foreign competition more rapidly raises two broad categories of tradeoffs.

A. Possible macro-destabilizing effects of NAFTA

125. A faster opening of the capital and services account could lead to further increases in the size of capital inflows. Insofar as these inflows go to finance investment that help to modernize Mexico's economy, these capital inflows should present no problem. However, there is the risk that, as in 1989-92, much of these inflows could be associated with lower domestic and, in particular, private savings.⁶³ This could have destabilizing macroeconomic effects. Further declines in private saving could seriously compromise the sustainability of Mexico's medium-term economic growth, as (in this case) Mexico will be acquiring foreign obligations while not expanding its productive base, and could even affect adversely short-term growth, if a new round of real peso appreciation results. The latter could occur if capital inflows are too strong, inflation convergence is compromised and firms that are already facing strong competitive pressures are no longer able to compete. This, in turn, could lead to a deterioration of the quality of bank's portfolios with implications for systemic risks in the financial system.

126. NAFTA will also raise fiscal pressures for Mexico quite independently of the speed with which it opens (what remains to be opened of) its capital and services accounts. The need to upgrade human skills and physical infrastructure to be able to compete under NAFTA will mean increased need for raising public investment. Similarly, the opening of the labor intensive agricultural sectors to foreign competition will have important fiscal implications as the needs to create a social safety net for displaced workers increase. These factors imply that, at the margin, the additional strain on the fiscal situation that systemic risks in Mexico's financial system may produce may be potentially important.

B. Systemic risks.

127. Introduction of foreign competition at an extremely fast pace could force some domestic financial institutions into bankruptcy possibly complicating public finances and the stability of the financial system. Moreover, it could precipitate capital flight and increased volatility in domestic asset prices. At the same time the restructuring required within the non-financial corporate sector and the implications for industrial groups of this process could also worsen the financial condition of financial intermediaries.

⁶³ In other words the capital inflows would be used to augment consumption.

128. To lessen systemic risk as Mexico's financial sector and real sectors are opened to competition will require a consistent set of structural microeconomic reforms that will have to be carefully sequenced. These will have to include:

- (a) concerted efforts to rapidly improve supervision of financial conglomerates. This action would need to be coupled with passage of more modern accounting, valuation and capital regulations that force financial groups to adopt a higher minimum standard in respect to systems for measuring and managing different forms of risk. Actions to quickly assess the quality of bank portfolios would also be essential in addition to improvements in processes for bank failure resolution and in the system of deposit insurance.
- (b) changes to the legal and regulatory framework to increasingly create greater incentives for true self-policing by a broad set of self-regulatory associations as defined above. This could greatly enhance the quality of information and its analysis through development of better practices by auditors, accountants, actuaries, appraisers, financial analysts or rating agencies etc. This would, in turn, create greater prospects for development of much greater volumes of initial public offering by companies (See part (iv) below). Simultaneously, objective standards for entry into such organizations should be developed that can be monitored by supervisory agencies.
- (c) changes in the legal and regulatory framework in respect to secured transactions or bankruptcy and in judicial processes that will broaden the set of borrowers that can access formal credit markets and reduce costs of bankruptcy or reorganization. These efforts will also improve the base of information on all borrowers and the degree of security in different forms of collateral, if coupled with actions too improve and automate the public registries inclusive of commercial and civil registries.
- (d) actions to increase the liquidity of the private securities markets by increasing both the supply and demand for securities. To do this will require a set of consistent reforms in such areas as social security (inclusive of old age security and health) or insurance which will result in a greater demand for securities through development of a broader class of institutional investors to complement existing Mexican "mutual funds". At the same time non-financial corporations will need to be subject to enough competition to begin to feel the need to raise capital through public debt or equity offerings, rather than employ retained earnings or bank borrowing. Finally, brokerage firms and banks could be permitted to engage in repurchase agreements with private securities as collateral, for reasons examined in Section IV.A above.
- (e) when the cash markets are more well developed and liquid and when supervision and self-regulatory processes have been substantially improved it will become important to introduce a greater variety of derivative instruments. Similar arguments can be made in the case of asset-backed securities denominated in local currency for the reasons noted above.

129. In sum, it is important to note that Mexico is progressing rapidly to implement structural reforms in areas (i - v) that will result in adequate financial sector infrastructure to support greater financial market integration under NAFTA. Thus, the prospect for permitting greater foreign participation in provision of financial services in Mexico than programmed under NAFTA may well become a reality.

Glossary

Terms in Respect to the NAFTA Treaty⁶⁴

Described below is each of the major principles and standards used in the NAFTA treaty.

Standard of treatment. Generally, each NAFTA country must grant "national treatment" and "most-favored-nation" treatment to providers of and investors in financial services from other NAFTA countries. "National treatment" means treatment no less favorable than a NAFTA country accords to its own domestic financial institutions and investors, or their investments, in like circumstances. "Most-favored-nation" treatment means treatment no less favorable than a NAFTA country accords to financial institutions and investors from any NAFTA or non-NAFTA country, or their investments, in like circumstances.

Market Access. The Agreement requires each NAFTA country to permit individuals and companies from the other NAFTA countries to provide financial services in its territory and to expand throughout its territory, either through separate subsidiaries or direct branches across international boundaries. Each NAFTA country may decide to restrict such access to subsidiaries rather than direct branches. Negotiations to permit direct bank branching across NAFTA country borders will take place if and when the United States allows interstate branching for banks within the United States. In Mexico, access for certain types of financial institutions (e.g., banks, securities firms, insurance companies) from other NAFTA countries will be subject to market share limitations that will be phased out during a six-year transition period. Mexico has also agreed to permit NAFTA investors that own a bank or securities firm in Mexico to form a financial group that will be eligible to expand into other financial services sectors under Mexican law.

Cross-border Financial Services. Each NAFTA country must permit its citizens and residents to purchase financial services from financial service providers located in the territory of other NAFTA countries. In addition, a NAFTA country may not adopt any new measures restricting cross-border financial services that are permitted by that NAFTA country on the date the NAFTA enters into force, except to the extent set out in that country's reservations to the Financial Services Chapter.

Rule of Origin. In general, any citizen, resident or business formed under the laws of a NAFTA country is entitled to enjoy the benefits of the Agreement. This means that financial institutions from outside the NAFTA region may be able to use subsidiaries established in one NAFTA country (such as the United States or Canada) to gain access to another NAFTA country (such as Mexico). However, Canada has reserved the right to deny the benefits of the Agreement to any entity that is not ultimately controlled by persons from NAFTA countries.

⁶⁴ This material is taken from Bachman (1993) which presents an excellent review of the financial provisions of NAFTA.

Transparency. NAFTA countries must ensure that interested persons have advance notice of and an opportunity to comment on laws, regulations, and other measures relating to financial services. Regulatory authorities of each NAFTA country must act upon applications relating to the provision of financial services within 120 days of completion or, if not practicable, with a reasonable period thereafter.

New Financial Services and Data Processing. Each NAFTA country must permit regulated financial institutions from every other NAFTA country: (i) to provide any new financial service of a type similar to those services that the first country permits its own financial institutions, in like circumstances, to provide under its domestic law; and (ii) to transfer information for data processing into and out of its territory.

Dispute Settlement. A NAFTA country -- and, in certain circumstances, a NAFTA investor -- may bring a financial service dispute against another NAFTA country. Such disputes are generally subject to the same procedures that govern other disputes under the NAFTA, except that the parties to a financial services dispute may require one or more members of the arbitral panel hearing the dispute to be a financial services expert.

Reservations and Exclusions. A NAFTA country may take actions that are inconsistent with the standards of the Agreement if those actions are taken: (1) for "prudential" reasons (e.g., safety and soundness regulation); (2) in pursuit of monetary and related credit policies; or (3) subject to certain conditions, in pursuit of exchange rate policies. A NAFTA country, state or province may continue to enforce any other provision of law existing on the date the NAFTA enters into force that is inconsistent with the Agreement by taking a "reservation" for that provision. Mexico may at any time adopt and maintain measures that otherwise may be inconsistent with the Agreement, as long as they are in accord with special NAFTA rules regarding the establishment and operation of financial institutions in Mexico.

Some detail on Commercial Banking Spreads in Mexico¹

Despite the de-regulation of the banking system (see Glaessner (1993-B), Ramachandran (1991), Carstens (1992) for reviews) including the removal of most explicit and implicit taxes on bank intermediation, the privatization of banks, and the ratification of NAFTA, the efficiency and competitiveness of the banking sector remains suspect. Further analysis of the causes of high banking margins and differences across banks can help in establishing an agenda of reforms. The key sources of banking margins² in Mexico include: operating costs, remaining implicit taxes such as provisioning for overdue loans or capital adequacy standards, contributions to Mexico's system of deposit insurance FOBAPROA and profits. In addition, the dispersion in lending rates does not only reflect credit risk differentials and costs of processing smaller versus larger loans, it is also related to certain defects in Mexico's institutional infrastructure in support of credit markets.

Operating and other Non-Financial Costs: Mexican commercial banks, taken as a group, still appear to be somewhat inefficient, as operating expenses as a percent of average assets are about 4.4 percent relative to an average of about 2 percent in developed countries (similar conclusions when measuring efficiency through interest margins).³ Moreover, across Mexico's 18 financial groups there is significant variation in operating costs inclusive of personnel costs. In some banks, operating costs are as high as 10 percent of average assets and personnel costs often account for a substantial portion of these costs. In addition, administrative costs are high due to a lack of automation in bank operations and lack of good cost accounting systems. However, there is increasing evidence that this situation is changing as many newly formed financial groups are shedding labor and making investments to begin to reduce operating costs.

A more recent and detailed study undertaken by the CNB that applies the methodology for decomposing banking spreads originally developed by Hanson and Rocha (1986) confirms the fact that nonfinancial costs are an extremely important component of spreads within the banking system. These costs were found to account for about 70 percent of the gross financial margins in 1993. Within this set of costs the most important were associated with personnel and administrative costs. More specifically, non-financial costs per asset are shown to be 2-3 times

¹ Some parts of this annex draw heavily upon the work of the CNB "Los Margenes de Intermediacion en Mexico (documento de Trabajo)" July 1993.

² Note that with the formation of financial groups the analysis below gives only a partial picture of efficiency since it does not examine the consolidated financial position of each financial group. To the extent that commercial banking operations still account for the majority of the groups assets and income this will not be a bad approximation. However, this situation is changing rapidly and in some groups the operations of the Casa de Bolsa would be important to take into account (e.g. Accival).

³ Comparisons of various measures of efficiency of provision of banking services can be difficult to interpret and must be viewed with caution since Mexico employs inflation accounting and accounting standards applied to commercial banks, in preparation of financial statements, do not even accord with Mexican GAAP. At 4.4% of assets, Mexico's interest margin was higher than all but one of 17 developing and 16 developing countries according to several sources: "Thailand Financial Sector Study" World Bank, May 25, 1990; and "Measuring Banking Sector Efficiency" Dimitri Vittas, April 1991, World Bank.

higher for all Mexican banks vis a vis US and Canadian institutions.⁴ Within this set, the most important were associated with personnel and administrative costs.

Provisioning and Capital Adequacy: Relative to the 1980s, the Mexican banking system is subject to far fewer explicit and implicit taxes on its operations through such devices as reserve requirements, liquidity coefficients etc. Moreover, those liquidity coefficients which are still in effect and which apply to foreign borrowing do not likely have a large impact on spreads.⁵ However, application of tougher supervision procedures and capital adequacy standards or provisioning policies have contributed to increases in banking spreads.⁶ Over the 1991-92 period the increase in overdue loans on the balance sheets of Mexican banks has been quite dramatic, increasing by 112 percent alone between June 1991 - June 1992. For the banking system as a whole. Table 3 shows that overdue loans as a percentage of total loans had risen to 4.82 percent on average for all banks. However, the disparity in this ratio has grown as seen in the increase in the standard deviation from 1.22 in 1990 to 2.20 by 1992. Chart 1 suggests that for regional banks such as Promex, Banco del Centro or Banco del Oriente these ratios have exceeded 6 percent, while even the largest banks (e.g. Banamex, Bancomer, and Serfin) have ratios over 4 percent. Comparable ratios at most U.S. commercial banks are about 2-3 percent.⁷

More recent data in 1993 suggests that by June 1993 overdue loans (as measured by *cartera vencida*) as a percentage of total loans had grown to 7.2 percent. Moreover, over this period the disparity across banks has continued to grow (see Table 1) as some banks had ratios of close to 20 percent while many had ratios in the 6-8 percent range. The largest problems have existed in the credit card and project lending portfolios of some of the commercial banks.

At the same time as overdue and non-performing loans have grown and associated provisions have increased which has increased the pressures to increase margins, capital adequacy

⁴ Regression analysis undertaken by CNB suggests that about 90 percent of the variation of the financial margin nominalized assets can be explained by variation in non-financial costs (normalized by total banks assets).

⁵ This restriction requires investing 15 percent of the 20 percent of total borrowing in foreign currency in interest earning liquid foreign instruments. Given that yield curves in foreign countries are not that steep, relaxing this requirement would not result in enormous savings to the banks that could be passed on in terms of substantially lower rates. This is of course less true if commercial banks could on-lend the funds within Mexico, however, this would only increase the exchange rate risk being undertaken if loans were denominated in local or foreign currency. In the latter case, questions arise if the final borrower could manage peso/dollar risk. Contributions to the deposit insurance fund if capitalized would add less than .5 percent to spreads and is therefore also significant.

⁶ Formally, application of such prudential regulations could result in either a reduction in return offered on liabilities or an increase in lending rates depending upon the elasticity of demand for funds by bank borrowers and the elasticity of supply in the case of those lending to banks (i.e. depositors).

⁷ Extreme care needs to be taken in making inter-country comparisons between these ratios in Mexico vs. other countries. Accounting principles in Mexico applied to commercial banks are not coincidental with either Mexican GAAP or US GAAP. The method for determining overdue loans is different than in the United States. In Mexico, "caartera vencida" refers to loans where one payment has been missed whereas in the United States, a loan is classified as non-performing after it has been in non-accrued for a certain period, say 90 days. Thus, the comparison may overstate the deterioration in Mexican loan portfolios.

regulations for commercial banks have been toughened to 8 percent on a risk adjusted basis. These factors have therefore, contributed to the high commercial banking spreads present in Mexico. Finally, while capitalization of the banking system is adequate, at least 5 banks had capitalization levels below this limit in 1992 and only one during 1993.

Several of the underlying reasons for the growth in overdue loans of commercial banks could result in increasing pressure for high banking spreads.

First, the level of domestic real interest rates (i.e. CETES) had to increase to sterilize the large inflows of foreign exchange needed to finance the current account deficit given the much smaller domestic budget surplus at current real exchange rates. In this environment, the strongest firms have funded themselves offshore. This has increasingly caused a deterioration in the creditworthiness of commercial bank borrowers.⁸

Second, the increase in the real cost of capital to firms coupled with the more open trade regime has also resulted in increasing company failure rates, particularly among small and medium enterprises in the tradeable goods sector. These firms have been subject to reductions in sales revenue given the appreciation in the real exchange rate. At the same time, financing costs have risen in real terms.

Finally, personnel responsible for credit provision at some Mexican commercial banks lack necessary skills and there is a lack of centralized information on borrowers so that financial institutions can cross-check borrowers, particularly in the provision of consumer banking services (e.g. credit cards). Both have contributed to the increase in non-performing assets.

Profits and Competitiveness: Despite the problems of high operating costs and increasing non-performing loans and the difficulty theoretically in linking profitability and spreads (see Hanson and Rocha (1986) and Musalem (1992)), measures of Mexican commercial bank profitability are high. For example, interest margins as a percent of average assets for Mexican banks have been at 4.4 percent or more. In 1992, these margins in Mexico were substantially higher than in the case of the United States or Canada (see Table 1). Other measures of commercial bank return are also high, such as return on assets or return on equity. Moreover, in the aftermath of the de-regulation of commercial banks and privatization in 1989-91, lending rates have not fallen as much as might have been expected given banking deregulation that involved removal of all forms of domestic reserve requirements. This appears to be the case even if increased provisioning against different forms of sub-standard assets and more stringent risk adjusted capital requirements are taken into account -- the other major source of spreads besides operating costs.⁹ Remaining liquidity requirements associated with commercial bank foreign borrowing and payments to the commercial bank insurance fund (i.e. FOBAPROA) have been far less important.

⁸ It should be noted that non-banking services offered by financial groups have been growing very quickly in such areas as factoring and leasing, thereby compensating for some of the reduction in interest income that banks have experienced due to the increase in the non-performing loans in their credit portfolios.

⁹ Time did not permit a complete investigation resulting in a decomposition of spreads for financial conglomerates on a consolidated basis. This would be the correct way to estimate the annualized effect on spreads implied by enforcing different prudential regulations applied to the holding and entities within the group.

Other policy changes such as the relaxation of the foreign borrowing constraint from 10 percent to 20 percent of liabilities has helped to permit commercial banks to show strong operating profits. However, the exchange rate risks being undertaken by final borrowers or the commercial banks themselves are, of course, not deducted from the bank's capital. In part, the high profitability reflects a lack of competition due to insufficient threat of entry (i.e. contestability) thus far either by domestic institutions or foreign entities. To a far lesser extent, the profitability may partly reflect the right of commercial banks to allocate lower cost development credit (inclusive of longer maturity as well as interest rates).

Institutional Infrastructure: In addition to the problems associated with the perceived risks of banks and bank operating margins, the large range of lending rates for borrowers of different sizes can be linked to several defects in Mexico's institutional infrastructure and legal system.

First, the lack of centralized reliable information about the credit histories of small, relative to large borrowers, makes monitoring of such borrowers more costly for all banks.

Second, problems with registries for movable capital of all types (i.e. vehicles, machinery, certain types of inventories, etc.) limit the set of credit contracts that can underlay a well secured loan; this is because it is impossible for lenders to ensure that they have a unique claim on these types of collateral (i.e. perfect a security interest).

Third, problems exist in the courts with re-possession procedures in the case of defaults by borrowers even when special processes intended to be rapid such as "proceso ejecutivo" are specified.¹⁰ The potential importance of this issue in combination with the lack of well functioning registries can be seen from the observed effective rates charged for leasing transactions.¹¹ Leasing companies are able to obtain financing at rates equal to those charged large enterprises (i.e. 28 to 30 percent), and then, in effect, provide this rate to the SME's through the lease. Such leasing arrangements can, indeed, provide access to financing to SME's that would otherwise have no such access at all, even at 40 percent.

Fourth, some types of key functions which relate to preparation of a loan secured by collateral are legally monopolized. An example is the notary function that is an inherited right in Mexico that confers upon a subset of all lawyers. This legalized monopoly increases the costs of perfecting a security interest in all forms of fixed or movable capital.

Finally, this broad continuum of lending rates between small and large borrowers is due to lack of a broad and efficient securities market inclusive of a large class of institutional

¹⁰ Work done by the World Bank in the context of a Private Sector Assessment Study (1993) discusses these issues in some detail.

¹¹ This interpretation is legitimate because leasing transactions in Mexico were not subject to special tax advantages.

investors that would permit these firms to access directly long and short term savings through securities offerings.¹²

TABLE 1
Overdue Loans as a Percent of Total Loans
For Mexican Banks (End of Period)

Name of Banks	Nonperforming Loans/ Total Loans (in Percent)			
	1990	1991	1992	1993
ALL BANKS	2.04	3.15	4.69	7.20
I. Banks with national coverage Tier 1 ^{2/}	1.89	2.95	4.58	7.2
Banamex	1.35	3.20	4.65	8.0
Bancomer	2.43	2.70	4.51	6.4
II. Banks with multi-regional coverage - Tier II ^{2/}	2.42	3.28	4.82	7.25
Banca Serfin	1.97	3.92	5.70	8.0
Banco Internacional	2.50	2.68	4.48	7.9
Multibanco Comermex	1.29	1.96	4.81	6.8
Banco Mexicano	3.91	4.56	4.29	6.3
III. Banks with multi-regional coverage ^{2/}	2.25	2.84	3.58	5.32
Banca Confia	2.23	3.55	4.59	4.8
Banca Cremi	1.09	1.72	3.27	5.5
Banco BCH	4.79	5.32	6.13	-
Banco de Credito y Servicios	1.58	1.98	2.84	-
Banco del Atlantico	1.89	2.70	4.13	8.2
Banpais	3.21	3.19	2.29	4.4
Multibanco Mercantil Probusa	0.97	1.39	1.83	3.7
IV. Banks with regional coverage ^{2/}	2.71	4.60	6.65	9.05
Banca Promex	3.26	4.56	6.87	7.7
Banco del Centro	5.04	5.20	9.08	15.6
Banco Mercantil del Norte	1.52	2.21	2.30	3.9
Banco del Noroeste	1.53	2.86	4.81	-
Banco del Oriente	2.21	8.14	10.17	9.0
V. Other Banks				10.45
Banco Obrero	1.06	10.42	16.29	20.8
Citibank	0.05	0.05	0.07	0.1
BANKS AVERAGE ^{3/}	2.38	3.44	4.82	7.48
BANKS STANDARD DEVIATION ^{3/}	1.22	1.66	2.20	4.55

Source: Comision Nacional Bancaria

Notes:

1/: As of September 1992

2/: Average for banks in the same group

3/: Excludes category vs. Other Banks

4/: As of June 1993

¹² This point is discussed in Section IV of the paper.

Bibliography

Barnes, Guillermo. "Lessons from Bank Privatization in Mexico."
World Bank, Washington, D.C., November 1992.

Basle Committee on Banking Supervision. "The Supervisory Treatment of Market Risks".
December 1993.

Baumol, William J., John C. Panzer, and Robert Willig. Contestable Markets and the Theory of Industry Structure. New York: Harcourt Brace Jovanovich, Inc., 1982.

Calvo, Guillermo A., Leonardo Leiderman, and Carmen Reinhart. "The Capital Inflows Problem: Concepts and Issues". International Monetary Fund, Washington, D.C., July 1993.

Caprio, Gerard Jr. with Izak Atiyas, James A. Hanson and Associates. Financial Reform: Theory and Experience. World Bank, Washington, D.C., 1992.

Coorey, Sharmini. "Financial Liberalization and Reform in Mexico". 1992.

Diaz de Leon Carrillo, Alejandro. "Seguro Sobre Depositos en Mexico: Reformas al Fondo Bancario de Proteccion al Ahorro". Thesis, Instituto Tecnologico Autonomo de Mexico, Mexico, D.F., 1993.

Federal Reserve Board. Section 305 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) regarding interest rate risk. Washington, D.C., September 1993.

Garber, Peter M., and Steven R. Weisbrod. "Opening the Financial Services Market in Mexico". Prepared for the Conference on the Mexico-US Free Trade Agreement held at Brown University, October 18-19, 1991.

Glaessner, Thomas C.. "External Regulation vs. Self-Regulation: What is the Right Mix? The Perspective of the Emerging Securities Markets of Latin America and the Caribbean". World Bank, Washington, D.C., June 1993.(a)

- "Private Sector Development and Development of the Financial System". World Bank, Washington, D.C., Preliminary Draft, 1993.(b)

- with Ignacio Mas. "Incentive Structure and Resolution of financial Institution Distress: Latin American Experience". World Bank, Washington, D.C., November 1991.

Goldstein, Morris, David Folkerts-Landau, Peter Garber, Liliana Rojas Suarez, and Michael Spencer. International Capital Markets: Part 1. Exchange Rate Management and International Capital Flows. International Monetary Fund, Washington, D.C., April 1993.

Gruben, William C., John H. Welch, and Jeffrey W. Gunther. "U.S. Banks, Competition and the Mexican Banking System: How Much will NAFTA Matter?". Federal Reserve Bank of Dallas Financial Industry Studies, Texas, October 1993.

Hanson, James A. "Opening the Capital Account: A Survey of Issues and Results". World Bank Working Paper WPS-901, Washington, D.C., May 1992.

- and Roberto de Rezende Rocha. "High Interest Rates, Spreads, and the Costs of Intermediation: Two Studies." World Bank, Washington, D.C., 1986.
Indicadores Bursatiles: Statistic Summary. Bolsa Mexicana de Valores, Vol. 6, No. 10, Mexico, D.F., October 1993.

Informe del Mercado de Valores por el Periodo Noviembre - Diciembre 1993.

Levine, Ross. "Financial Sector Policies: Framework and Five Recommendations". Preliminary Draft. World Bank, Washington, D.C., August 1993.

"Los Margenes de Intermediacion en Mexico". Comision Nacional Bancaria, Mexico, D.F., Agosto 1993

Mansell Carstens, Catherine. "The Impact of the Mexican Bank Reprivatizations". Institute of the Americas, La Jolla, January 1993.

- "On the Remaking of the Mexican Economy: A Book Review" (based on book by Nora Lustig - Mexico: The Remaking of an Economy. The Brookings Institute, Washington, D.C., 1992.

- Las Nuevas Finanzas en Mexico. Editorial Milenio, S.A. de C.V., Mexico, D.F., 1992.

Merton, Robert C. "Operation and Regulation in Financial Intermediation: A Functional Perspective". CEPR/ESF Network in financial Markets - Financial Regulation. Toulouse, France., June 1993.

Musalem, Alberto, Dimitri Vittas and Asli Demirguc-Kunt. "North American Free Trade Agreement: Issues on Trade in Financial Services for Mexico". World Bank Working Paper, Washington, D.C., May 1993.

Panzardi, Roberto O. "Mexico: Banking and Financial Sector Modifications". World Bank, Washington, D.C., September 1993.

Ramachandran, S. "The Reform of the Mexican Financial System." Unpublished draft, World Bank, Washington, D.C., August 1990.

Salinas de Gortari, Carlos. Quinto Informe de Gobierno 1993. Poder Ejecutivo Federal, Mexico D.F., 1993.

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS1965 Manufacturing Firms in Developing Countries: How Well Do They Do, and Why	James Tybout	August 1998	L. Tabada 36869
WPS1966 Sulfur Dioxide Control by Electric Utilities: What Are the Gains from Trade?	Curtis Carlson Dallas Burtraw Maureen Cropper Karen L. Palmer	August 1998	T. Tourougui 87431
WPS1967 Agriculture and the Macroeconomy	Maurice Schiff Alberto Valdés	August 1998	A. Valdés 35491
WPS1968 The Economics and Law of Rent Control	Kaushik Basu Patrick Emerson	August 1998	M. Mason 30809
WPS1969 Protecting the Poor in Vietnam's Emerging Market Economy	Dominique van de Walle	September 1998	C. Bernardo 31148
WPS1970 Trade Liberalization and Endogenous Growth in a Small Open Economy: A Quantitative Assessment	Thomas F. Rutherford David G. Tarr	September 1998	L. Tabada 36896
WPS1971 Promoting Better Logging Practices in Tropical Forests	Marco Boscolo Jeffrey R. Vincent	September 1998	T. Tourougui 87431
WPS1972 Why Privatize? The Case of Argentina's Public Provincial Banks	Geroge R. G. Clarke Robert Cull	September 1998	P. Sintim-Aboagye 38526
WPS1973 The Economic Analysis of Sector Investment Programs	Sethaput Suthiwart- Narueput	September 1998	C. Bernardo 31148
WPS1974 Volatility and the Welfare Costs of Financial Market Integration	Pierre-Richard Agénor Joshua Aizenman	September 1998	S. King-Watson 33730
WPS1975 Acting Globally While Thinking Locally: Is the Global Environment Protected by Transport Emission Control Programs	Gunnar S. Eskeland Jian Xie	September 1998	C. Bernardo 31148
WPS1976 Capital Flows to Central and Eastern Europe and the Former Soviet Union	Stijn Claessens Daniel Oks Rossana Polastri	September 1998	R. Vo 33722
WPS1977 Economic Reforms in Egypt: Emerging Patterns and Their Possible Implications	Rania A. Al-Mashat David A. Grigorian	September 1998	S. Dy 32544
WPS1978 Behavioral Responses to Risk in Rural China	Jyotsna Jalan Martin Ravallion	September 1998	P. Sader 33902

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS1979 Banking on Crises: Expensive Lessons from Recent Financial Crises	Gerard Caprio, Jr.	September 1998	P. Sintim-Aboagye 38526
WPS1980 The Effect of Household Wealth on Educational Attainment: Demographic and Health Survey Evidence	Deon Filmer Lant Pritchett	September 1998	S. Fallon 38009
WPS1981 Evaluating Public Expenditures When Governments Must Rely on Distortionary Taxation	James E. Anderson Will Martin	September 1998	L. Tabada 36896
WPS1982 Analyzing Financial Sectors in Transition: With Special Reference to the Former Soviet Union	Alan Roe Paul Siegelbaum Tim King	September 1998	D. Cortijo 84005
WPS1983 Pension Reform in Small Developing Countries	Thomas Charles Glaessner Salvador Valdés-Prieto	September 1998	M. Navarro 84722
WPS1984 NAFTA, Capital Mobility, and Mexico's Financial System	Thomas Charles Glaessner Daniel Oks	September 1998	M. Navarro 84722