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Mexico's Banks after the December 1994 Devaluation--A Chronology of the Government's Response

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Roy A. Karaoglan*
Mike Lubrano**

I. INTRODUCTION

The immediate effects of the December 1994 peso devaluation and the period of high interest rates and economic recession that followed had important repercussions for the Mexican banking and financial system. Since the onset of the crisis, the Mexican government has undertaken a number of important actions designed to assure adequate capitalization of financial institutions and continued public confidence in the banking system. The goal throughout has been to avoid a banking crisis that would exacerbate the contraction in the real economy and to set the stage for a recovery of the financial system based on sound institutions and efficient financial markets. The steps taken have included amendments to the legal framework for foreign ownership of banks, reinforcement of supervision, programs for recapitalizing troubled banks, the introduction of inflation-indexed lending and the provision of indexed funding to banks, a debtor relief program and direct intervention of those banks that proved unable to weather the crisis and its aftermath. The combination of these measures has permitted most of the banks and the banking and payments

* This article was initially submitted in mid-October 1995 and reflects only developments occurring prior to such time.

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* The views expressed herein are solely those of the authors and should not be attributed to the International Finance Corporation or the World Bank.
system as a whole to continue to operate throughout 1995, despite a very sharp contraction in the real economy.

II. THE MEXICAN BANKING SYSTEM BEFORE THE CRISIS

The rapid devaluation of the peso and its aftermath hit a relatively new banking system. When the sudden fall in the value of the peso occurred in late December 1994, the market for financial services was still undergoing a process of maturation, with both the banks and the supervisory authorities working to improve their institutional capacity in order to be effective in this new environment. In 1990, constitutional amendments and new banking legislation\(^1\) set the stage for the return of the commercial banking industry to private hands.\(^2\) Mexican legislators opted for the conglomerate banking model, permitting the establishment of holding companies with subsidiaries engaged in banking, securities, insurance and other financial services. Between June 1991 and July 1992, all of the commercial banks were privatized, most of which became subsidiaries of newly-established financial holding companies (grupos financieros).

A. Development of the Banking System

The international financial community was generally of the opinion that Mexico was “underbanked” during the period of state ownership of the commercial banks (1982-1991/2). For most of that period, banks were principally invested in government securities rather than loans to private sector entities. Not surprisingly, once privatized, banks competed fiercely to gain market share in the provision of loans, both by increasing the volume of their existing lines of business and by entering the markets for relatively new financial services, such as home mortgages and credit cards. As a consequence, between 1991 and 1994, aggregate assets of the commercial banks increased by 111.3% in nominal terms, or by 64.6% in real terms, equivalent to a

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\(^1\) The Credit Institutions Law (*Ley de Instituciones de Crédito*) was introduced in July 1990 and has been amended on a number of occasions. It replaced an earlier law that was drafted to govern the activities of the banks nationalized in 1982. Together with the Financial Groups Law (*Ley para Regular las Agrupaciones Financieras*), it established the basis for the conglomerate banking model in effect in Mexico today. The Credit Institutions Law was intended to provide an appropriate legal framework for the capital structure, activities and supervision of the reprivatized banking system as well as for the activities of the state-owned development banks.

\(^2\) Mexico’s commercial banks (with the exception of Citibank and Banco Obrero) were nationalized in 1982 in the wake of the debt crisis. Prior to the initiation of the privatization program, the 58 nationalized banks were reduced to eighteen banks through a process of liquidations and mergers.
real annual growth rate of 18.1%. In 1994, assets of the commercial banking system averaged N$735 billion, equivalent to 58.8% of GDP, compared to 42.5% for 1991. The growth rate of the banks' loan portfolios was even higher than that of assets. From year-end 1991 through year-end 1994, aggregate gross loans (excluding discounted loans) increased by 142.9% in nominal terms, or by 89.2% in real terms, equivalent to an annual real growth rate of 23.7% (more than eight times the rate of GDP growth during the period).

Although deposit mobilization also improved significantly after privatization, with the ratio of average deposits to GDP increasing from 21.4% in 1991 to 31.3% in 1994, the rate of growth of loan portfolios outstripped that of deposits. The ratio of loans to deposits increased steadily from 94.1% at the end of 1991 to 113.8% by 1993, and still further to 124.0% by 1994. Unable to attract conventional deposits fast enough to support new lending, many banks increased their reliance on interbank funding, the bulk of which consisted of lines of credit from foreign banks. Interbank lines increased from the equivalent of N$34 billion at the end of 1991 (of which N$23 billion were denominated in foreign currency) to N$124 billion at the end of 1994, of which the equivalent of N$92 billion (US$17.3 billion) were denominated in foreign currency.

A rapid expansion of lending to private enterprises usually takes place at the cost of a drop-off in portfolio quality, and Mexico appears to have been no exception. Whereas aggregate past due loans (including both principal and interest) of commercial banks (excluding Banco Union and Banca Cremi) accounted for 4.09% of gross loans (including discounted loans) at the end of 1991, by the end of 1993 the ratio stood at 7.25%. During the first half of 1994, the ratio increased further to 8.30% before decreasing to 7.33% by year-end (see Table 1), largely due to a 27% increase in gross loans during the second half of the year. At the same time, the ratio of non-performing credits (de-

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3 *Banco Union* and *Banca Cremi* were intervened by the authorities in September 1994 (see "Regulation and Supervision," below).

4 In analyzing the data on Mexico's banking system, it is important to keep in mind that Mexican banks prepare their financial statements under Mexican Generally Accepted Accounting Principles ("Mexican GAAP") and that these differ in a number of important respects from U.S. GAAP, including the definition and treatment of non-performing loans, of provisions and of the accrual of interest income on loans. In the wake of the peso crisis, the CNBV has announced that it will issue revised uniform accounting rules, similar to those of U.S. GAAP, for financial statements and regulatory reports of Mexican banks beginning with their year-end 1996 accounts.
financed as the three lowest of the five credit categories\(^5\) to gross credits (which include loans plus off-balance sheet exposures) increased steadily from 5.20% at the end of 1991, to 6.65% by 1992, to 8.15% by 1993, and finally to 8.80% by 1994.

Table 1: Loan Portfolio Quality and Loan Loss Provisions of Mexican Commercial Banks\(^1\), 1991-94 (in millions of N$ and percentages at year-end)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Gross loans(^2)</td>
<td>240,153</td>
<td>336,907</td>
<td>421,126</td>
<td>594,205</td>
</tr>
<tr>
<td>Past due loans</td>
<td>9,828</td>
<td>18,757</td>
<td>30,527</td>
<td>43,544</td>
</tr>
<tr>
<td>Loan loss provisions</td>
<td>4,994</td>
<td>9,072</td>
<td>13,045</td>
<td>20,849</td>
</tr>
<tr>
<td>Equity</td>
<td>21,336</td>
<td>28,802</td>
<td>37,383</td>
<td>44,667</td>
</tr>
<tr>
<td>Ratios (%) Past due/Gross loans</td>
<td>4.09</td>
<td>5.57</td>
<td>7.25</td>
<td>7.33</td>
</tr>
<tr>
<td>Non-Performing credits/Gross credits risks(^3)</td>
<td>5.20</td>
<td>6.65</td>
<td>8.15</td>
<td>8.80</td>
</tr>
<tr>
<td>Provisions/Gross loans</td>
<td>2.08</td>
<td>2.69</td>
<td>3.10</td>
<td>3.51</td>
</tr>
<tr>
<td>Provisions/Past due</td>
<td>50.81</td>
<td>48.37</td>
<td>42.73</td>
<td>47.88</td>
</tr>
<tr>
<td>Open loan exposure/Equity</td>
<td>22.66</td>
<td>33.62</td>
<td>46.77</td>
<td>50.81</td>
</tr>
<tr>
<td>Open loan exposure/Adjusted stockholders' equity(^4)</td>
<td>40.86</td>
<td>53.97</td>
<td>71.47</td>
<td>73.91</td>
</tr>
<tr>
<td>Net capital/Risk-weighted assets</td>
<td>7.73</td>
<td>9.01</td>
<td>9.94</td>
<td>9.60</td>
</tr>
</tbody>
</table>

1. Aggregates exclude Cremi and Union, which were intervened in September 1994.
2. Including discounted loans.
3. Gross credit risks include gross loans and off-balance sheet risks (i.e., discounted loans, guarantees and irrevocable lines of credit). Non-performing credits comprise loans classified in categories C, D and E. Figures for gross and non-performing credit risks actually relate to the preceding quarter.
4. Open loan exposure is defined as the difference between past due loans and loan loss provisions.
5. Defined as stockholders' equity less revaluation surplus.

Source: National Banking and Securities Commission

Recognizing the drop-off in asset quality accompanying the transformation of the Mexican banking system, banks substantially increased provisions to cover their actual and potential loan losses. Aggregate loan loss provisions more than doubled from nearly N$5.0 billion at the end of 1991 to more than N$13.0 billion by year-end 1993. However, the ratio of provisions to past due loans actually decreased from 50.8% to 42.7% during the two-year interval, before rebounding somewhat to 47.9% by year-end 1994.

Notwithstanding the shortfall in the banks' provisions, the banks' capital adequacy ratios improved during the period 1991-1994, as the financial authorities instituted a phased increase of the minimum re-

\(^5\) The five categories are: minimal risk (A); low risk (B); moderate risk (C); high risk (D); and loss (E), with the latter three categories considered as the non-performing component of the portfolio.
required ratio of net capital to risk-weighted assets, from 6% at the end of 1991 to 7% by the end of 1992, and then to 8% by the end of 1993. As shown in Table 1 above, the average ratio increased from 7.73% at the end of 1991 to 9.94% by 1993, and still further to 10.27% by the end of September 1994, before decreasing to 9.60% by year-end, due to the losses suffered during December in the wake of the peso devaluation.

B. Regulation and Supervision

Authority for regulating the activities of banks in Mexico is shared among the Banco de Mexico (Mexico’s central bank),6 the Ministry of Finance and Public Credit and the National Banking and Securities Commission.7 After privatization, the authorities introduced changes to the legislative and regulatory framework for banking to encourage competition, reduce intermediation costs, assure adequate capitalization and discourage unsound practices. At the same time as the new privatized banking regime was set in place, deposit lending rates, reserve requirements, requirements to lend to specific sectors and other limitations on bank lending activities were significantly deregulated. In July 1993, amendments to the Credit Institutions Law and Financial Groups Laws were approved which weakened the restrictions on the types of services which could be provided by banks and other financial entities. New regulations were also issued governing the treatment of newly-introduced financial instruments (such as exchange coverage contracts), marketing of financial products (including mutual funds), securities activities of banks and the establishment of independent credit bureaus.

Although steps to improve banking supervision were taken at the time of privatization of the commercial banks, efforts to fully equip the National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores or CNBV) to supervise the new system began only in 1994.8 An institutional development plan was initiated by the

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6 In June 1993, the Mexican Constitution was amended and legislation went into effect granting the Banco de Mexico greater autonomy and more clearly defining its functions as those relating to conduct of monetary policy and supervision of the payments system and foreign exchange markets.

7 The Credit Institutions Law established the National Banking Commission (created under earlier legislation) as the chief supervisory authority for both private commercial banks and state-owned development banks.

8 The Banking and Securities Commission Law (Ley de la Comisión Nacional Bancaria y de Valores), which went into effect on May 1, 1995, provided for the merger of the National Banking Commission with the National Securities Commission, the principal regulator of the securi-
CNBV in mid-1994 under the CNBV’s new management team (headed by CNBV President Eduardo Fernandez Garcia, a highly regarded former Banco de Mexico lawyer) and the government announced a plan to merge regulation of securities and banking in late 1994. One of the principal goals of the merger was to facilitate the effective supervision of financial groups on a consolidated basis by placing the supervisors of Mexico’s brokerage houses under the same roof as the supervisors of their bank affiliates.

The reorganized CNBV’s first test came in June 1994 when, as a result of the discovery of irregular transactions in the course of regular bank inspections, the CNBV effected the administrative intervention of Banca Cremi and Banco Union, both commercial bank subsidiaries of the Grupo Financiero Cremi-Union. On September 6, 1994, after discovering numerous additional irregularities and evidence of fraud involving related party transactions affecting the soundness and solvency of these banks, the CNBV removed the management of both banks and appointed a management intervenor for the group and its subsidiaries. After the appointment of the intervenor, losses of N$4,750 million from bad loans, fraud and the effects of the devaluation were recognized and an additional N$2,350 million of capital was injected by the Bank Fund for Savings Protection (described below). After instituting the intervention of Cremi and Union, the board of directors of the CNBV established an intervention committee to assist in resolving the intervened subsidiaries of Grupo Financiero Cremi-Union. The committee’s goals included reassuring depositors and creditors that the intervened banks, with the support of the Bank Fund for Savings Protection, would continue to comply with their obligations.

Although the Cremi/Union intervention demonstrated the CNBV’s willingness and ability to uncover irregularities and take drastic action when necessary, bank supervisory capacity nevertheless remained limited at the onset of the crisis. A basic framework for implementing new policies and procedures for bank inspections had been put in place by the CNBV’s management, but there had not been

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9 The CNBV take-over of Cremi-Union was the first such intervention since the privatization of the banking system. Earlier in 1994, the CNBV and FOBAPROA negotiated an arrangement with Banco Obrero (a bank owned by Mexican labor unions, which was never nationalized) under which FOBAPROA made a capital infusion of N$300 million in exchange for a majority interest. Inspections of Banco Obrero had exposed insufficient capitalization and certain past management deficiencies.
sufficient time to prepare an adequate number of trained and experienced inspectors to be fully effective.

C. Bank Fund for Savings Protection (FOBAPROA)

The Credit Institutions Law provided for the establishment of the Bank Fund for Savings Support (Fondo Bancario para Protección de Ahorro, or FOBAPROA, successor to an earlier bank support fund) and defined the legal basis for its provision of "preventive support" to troubled banks. FOBAPROA's operations are funded through annual and special contributions from commercial banks and from credit extended to FOBAPROA by the Banco de México.10

FOBAPROA's role goes beyond simple deposit insurance. Under the Credit Institutions Law, the fund is required to give notice each December of the types of bank assets it will cover the following calendar year. Each year since its inception, FOBAPROA has stated its intention to assure the payment of all liabilities of Mexican banks, other than subordinated debt. The fund has broad powers to extend preventive support to banks to permit them to meet such obligations. Such support may be secured by a pledge of the shares of a commercial bank recipient or, under amendments approved in February 1995 (described below), its financial holding company. Under the amendments approved in February 1995 (and arguably before such amendments), FOBAPROA is empowered to exercise the voting rights of shares that have been pledged to it. If amounts extended as preventive support are not repaid, or if serious undercapitalization or irregularities are uncovered in a bank, FOBAPROA may vote the shares it has received in pledge, take majority control of the bank or financial group, replace management, write down the bank's capital in accordance with the results of a full audit and sell the bank. As described below, the flexibility accorded FOBAPROA under the Credit Institutions Law has permitted it to function as the instrument for a number of the Mexican government's responses to the effects of the peso crisis on the banking sector.

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10 FOBAPROA is organized as a trust administered by the central bank. However, Article 122 of the Credit Institutions Law establishes that FOBAPROA's policies will be set by a technical committee with members appointed by the Ministry of Finance and Public Credit, CNBV and the Central Bank. A majority of the members of the technical committee are appointed by the Ministry of Finance.
III. IMPACT OF THE DEVALUATION ON THE FINANCIAL SYSTEM

The banking system was severely shaken by the peso crisis. The two immediate adverse effects were the foreign exchange losses incurred by the banks on account of their open short positions, and the impairment in the value of the banks' investments (consisting mainly of fixed-income securities) resulting from the sharp rise in interest rates which followed the collapse of the peso. In addition to these losses, banks were facing, on the one hand, significant liquidity pressures which substantially increased their funding costs and, on the other hand, an accelerated deterioration in the quality of their loan portfolios because of the extremely high interest rates during the first few months following the devaluation.\textsuperscript{11}

A. Exchange Losses

Mexican banks are subject to two fairly restrictive limits on the relative size of their foreign currency-denominated liabilities and their net open foreign currency exposure. Under prevailing regulatory guidelines, banks are required to limit their foreign currency liabilities to no more than 20% of total liabilities, and their net open short or long foreign currency positions to no more than 15% of net capital. Although some banks appear to have recouped part of their losses by converting their net short positions into net long positions shortly after the December 20 devaluation, but before the further decline of the peso, the net foreign currency losses incurred by the banking system were not negligible. Published financial statements indicated that at least eight banks (including the three largest) recorded significant fourth quarter losses. For the system as a whole, fourth quarter foreign exchange losses totaled about N$4.6 billion, equivalent to more than 10% of equity.

B. Interest Rate Exposure

The banks' aggregate investment portfolio increased by about 84% in 1994 to reach a level of N$85.9 billion at year-end. The bulk of these investments consisted of fixed-income securities (N$55.8 billion), whose value was impaired by the sharp hike in interest rates. In the aftermath of the peso devaluation, the CNBV issued in January 1995 a new regulation requiring banks to value their securities at mar-

\textsuperscript{11} Mexico's then newly-appointed Secretary of Finance and Public Credit Guillermo Ortiz described the immediate and medium-term effects of the peso crisis on the banking system in the immediate aftermath of the devaluation in a presentation to the investor community in New York on January 5, 1995.
ket prices and to disclose their unrealized gains or losses on their financial assets and liabilities in their off-balance sheet accounts as of end-1994. Published financial statements indicate that only Mexico's largest bank, Banamex, realized losses on its securities portfolio, totaling N$869 million, equivalent to 7.9% of its equity at year-end. Most of the other banks showed unrealized gains, since the valuation method adopted by CNBV (which differs from U.S. GAAP) takes into account both financial assets and financial liabilities. Thus, the banking system, excluding Banamex, showed an aggregate unrealized gain of N$209 million, equivalent to 0.6% of equity. Including Banamex, the losses (both realized and unrealized) amounted to N$660 million, equivalent to 1.5% of the system's equity at year-end.

C. Liquidity Problems

At the end of 1994, aggregate deposits with the commercial banks (excluding Union and Cremi) totaled N$413.9 billion, of which 18.3% was denominated in foreign currency and 73.6% consisted of time deposits. The latter comprised promissory notes (N$164.6 billion), fixed deposits (N$89.2 billion), bank bonds (N$38.0 billion), and subordinated obligations (N$13.0 billion). About 15.6% of the time deposits, or the equivalent of N$65.4 billion, were raised by the 13 banks that operated branches (28 in total) outside Mexico. The bulk of these time deposits consisted of U.S. dollar-denominated CDs, which reportedly amounted to about US$8 billion.

As a result of the peso crisis, the banks came under significant liquidity pressure, as they found it extremely difficult to roll-over maturing CDs. In fact, during the first three months of 1995, aggregate foreign currency-denominated deposits with the commercial banks (including Union and Cremi), decreased by 23% or by more than US$3.5 billion, to stand at end-March 1995 at US$11.8 billion, equivalent to 15.8% of total deposits.

The pressure on the banks was initially compounded by the Government's difficulty in dealing with the problem of its maturing dollar-denominated short-term instruments (Tesobonos). The liquidity assistance provided by FOBAPROA to the commercial banks (described below), which amounted to US$3.3 billion during the first quarter of 1995, significantly improved the banks' liquidity position. However, the liquidity crunch had significant adverse effects on the banks' average cost of funds and, hence, on their profitability during the first half of 1995.
D. Loan Portfolio Quality

As described above, the high rate of growth of banks' loan portfolios in the period after privatization was accompanied by an increase in the levels of non-performing loans when the peso crisis ensued. The banks' recognition of the deterioration of their loan portfolios was reflected by the additional loan loss provisions taken. Aggregate new loan loss provisions taken during the fourth quarter of 1994 amounted to more than N$5.3 billion, compared to N$5.5 billion for the first three quarters combined. As a result of these heavy charges, coming on top of the foreign exchange losses, the impairment in the value of the securities portfolio, and the unrealized losses from the banks' subsidiaries, the banking system (excluding Cremi and Union) recorded an aggregate loss before tax of N$3.5 billion during the fourth quarter of 1994, equivalent to 43% of profits (before tax) during the first three quarters of the year, and to 7.9% of the equity at year-end.

Since a large share of lending in Mexico is at floating rates adjusted monthly, the prevailing high interest rates quickly diminished borrowers' ability to service their debts. As part of the Government's revised economic program, monetary policy was tightened substantially, causing nominal interest rates on peso-denominated Treasury bills to rise to approximately 75% by March 1995. Interest rates on consumer debt, mortgages and commercial credit rose above 80% during the months immediately following devaluation, before falling back into the 30-40% range by late spring. In addition to falling behind in their debt service payments, debtors in increasing numbers joined a chorus of associations calling for the Government to relieve some of their plight. Partially in response to debtor sentiment that the interest rate "bubble" of the early part of the year endangered the survival of otherwise viable businesses, the Government introduce the ADE program in September 1995 (see below).

The drop-off in the quality of the loan portfolios of the major commercial banks is illustrated in Table 2 below. The ratio of past due loans to gross loans of the group, increased from 7.29% at end-1994 to 9.64% by the end of March 1995, and further to 12.21% by the end of July 1995. Although banks substantially increased their loan loss provisions during the first three months of 1995 by an aggregate amount of N$8.63 billion and by another N$7.65 billion by July 1995, the ratio of provisions to past due loans stood at 55.34% by March 1995 and 55.23% by July 1995.
Table 2: Loan Portfolio Quality of Major Mexican Commercial Banks
(in millions of new pesos and percentages)

<table>
<thead>
<tr>
<th></th>
<th>End Dec.</th>
<th>End March</th>
<th>End July</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross loans</td>
<td>561,383</td>
<td>617,268</td>
<td>602,085</td>
</tr>
<tr>
<td>Past due loans</td>
<td>40,931</td>
<td>59,507</td>
<td>73,488</td>
</tr>
<tr>
<td>Loan loss provisions</td>
<td>19,724</td>
<td>32,932</td>
<td>40,584</td>
</tr>
<tr>
<td>Equity</td>
<td>42,856</td>
<td>51,487</td>
<td>55,480</td>
</tr>
<tr>
<td>Ratios (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past due/Gross loans</td>
<td>7.29</td>
<td>9.64</td>
<td>12.21</td>
</tr>
<tr>
<td>Provisions/Gross loans</td>
<td>3.51</td>
<td>5.34</td>
<td>6.74</td>
</tr>
<tr>
<td>Provisions/Past due</td>
<td>48.19</td>
<td>55.34</td>
<td>55.23</td>
</tr>
<tr>
<td>Open loan exposure/Equity</td>
<td>49.48</td>
<td>51.62</td>
<td>59.31</td>
</tr>
<tr>
<td>Net capital/Risk-weighted assets</td>
<td>9.64</td>
<td>10.18</td>
<td>10.76</td>
</tr>
</tbody>
</table>

1 Includes all privatized banks except those intervened or controlled by FOBAPROA (Cremi, Union, Banpais, and Oriente).
2 Open loan exposure is defined as the difference between past due loans and loan loss provisions.

Source: National Banking and Securities Commission

E. Capitalization

The significant new loan provisions noted above and the banks' increased funding costs impacted negatively on the banks' capital position. During the first two months of 1995, the aggregate equity of the group of nineteen banks decreased by N$4.5 billion or by 10.6%. Consequently, the group's average ratio of net capital to risk-weighted assets decreased during the interval from 9.40% to 7.75%. In fact, at the end of February 1995, nine out of the nineteen banks had ratios below 8%, as compared to only three at the end of 1994.

IV. The Government's Response to the Banking Crisis

A. Crisis Management Measures (January - February 1995)

1. Provision of Liquidity to Banks

As noted above, Mexican banks faced an immediate liquidity crisis in both dollars and pesos in the immediate aftermath of the devaluation. The Government's response was to establish a special FOBAPROA window to provide dollar liquidity while the Banco de Mexico provided short-term peso credit as lender of last resort. Use of these facilities was extensive in the early months of the crisis, but soon began to gradually decrease as banks reduced lending and other sources of funding again became available.
In the immediate aftermath of the peso devaluation, most of Mexico's commercial banks encountered extreme difficulty in renewing their maturing dollar obligations. Mirroring the Government's Tesobono difficulties, commercial banks found their CD depositors and other lenders reluctant to roll over their investments. The Government responded by establishing in early January a special window (provided by FOBAPROA) for short-term dollar lending (initially on 28 day terms, later shortened). In order to provide strong incentives for commercial banks to substitute private sector funding at the earliest possible time, FOBAPROA charged interest on such credits of up to 25% and required the loans to be secured by government securities, debt securities of Nacional Financiera, S.N.C. (the state development bank) or equity securities of the recipient bank. On March 31, 1995, the total outstanding balances drawn by ten of the commercial banks were about US$3.3 billion. However, as the immediate crisis passed, banks were successful in finding cheaper sources of funding and by August 1995, balances owed to FOBAPROA had been repaid.

Most Mexican banks also generally experienced significant difficulty in maintaining their peso funding. Interbank peso lending rates rose substantially as banks used pesos to buy dollars to retire maturing dollar-denominated CDs. There also appears to have been significant "flight to quality" with depositors withdrawing from smaller banks and redepositing pesos in larger and presumably sounder institutions. As part of its lender of last resort function, immediately following the devaluation the Banco de Mexico began providing peso liquidity to certain Mexican banks through special credit auctions. Such credit was initially provided on an unsecured basis as some banks were experiencing a shortage of eligible collateral. In order to ensure that liquidity provision did not become a means to delay recognition of insolvency, after March 20, 1995 the Banco de Mexico began requiring banks to post government securities, securities of Nacional Financiera and loans provided to prime borrowers as collateral in such peso credit auctions. Outstanding balances stood at the equivalent of US$3.0 billion by March 31, 1995 with most established banks participating in the auctions at some point. As the immediate crisis passed, however, banks were able to return to the private money markets and ceased to rely on FOBAPROA for peso liquidity.

B. Relaxation of Foreign Investment Restrictions

Historically, Mexican financial sector legislation has included sharp limits on foreign participation in financial institutions operating
in Mexico. In anticipation of the entry into force of the North American Free Trade Agreement (NAFTA), in December 1993 the Credit Institutions Law, Financial Groups Law, Capital Markets Law (Ley del Mercado de Valores) and other financial sector legislation was amended to provide for a special category of wholly-owned foreign-controlled financial holding companies, commercial banks, brokerage houses and other types of financial institutions, where authorized by treaty. However, under the 1993 amendments to the Credit Institutions Law, foreign-controlled commercial banks were subjected to individual and aggregate market-share limitations. No single foreign-controlled bank could represent more than 1.5% of the capital of the Mexican banking system and all foreign banks taken together were limited to no more than eight percent of the market.\textsuperscript{12} NAFTA provided for a gradual increase in the aggregate market share limitation and its elimination by the year 2000.

In an effort to attract additional capital to the financial system, Mexico's financial sector legislation was further amended in February 1995 to permit foreign individuals and foreign companies as a group to hold up to 49% of the voting shares of a Mexican-controlled financial holding company, commercial bank or brokerage house, entities not subject to market share limitations. The previous ceiling for Mexican-controlled commercial banks had been 30%. Just as importantly, in order to encourage take-overs or mergers between better capitalized foreign financial institutions and existing Mexican banks, the amendments permitted foreign financial institutions to purchase a controlling interest in any Mexican commercial bank with a market share of less than 6%. As originally submitted to the Mexican Congress, the amendments provided for no individual or aggregate market-share limitations. The 6% limit and an aggregate 25% cap on foreign-controlled banks were added to the legislation during Congressional consideration on the grounds that permitting foreign control of any of Mexico's three largest banks might compromise the domestic payments system.\textsuperscript{13} The market share limitations effectively placed Banamex, Bancomer and Serfin off limits for a possible merger with a foreign-owned institution, but relaxation of the earlier 1.5% individ-

\textsuperscript{12} The first bank charters under this legislation were approved by the Ministry of Finance and Public Credit only in August 1994. None of these new foreign-controlled banks had established substantial operations by the time of the devaluation.

ual market share limitation was crucial to permitting the recapitalization of *Probursa* by Spain's *Banco Bilbao Vizcaya* (described below).

C. Interventions

At the same time as Mexico's financial sector legislation was amended to permit greater foreign participation, changes were made to the Credit Institutions Law and the Financial Groups Law which were intended to facilitate the expeditious intervention and disposition of decapitalized banks. Amendments to the Financial Groups Law provided that "preventive support" could be provided by FOBAPROA to the financial holding company to be channeled to its bank subsidiary. In such cases, support can be collateralized by a pledge of capital stock of the financial holding company, potentially giving FOBAPROA control over all affiliates of a bank in the event of its insolvency. In addition, the rules governing the pledge of shares of an institution (financial holding company or commercial bank) receiving support from FOBAPROA were toughened in two important ways: (i) such pledges were accorded the status of preferential liens (and in the case of commercial banks, preferential liens of public interest); and (ii) the amendments included explicit language to the effect that the granting of such pledges conveys to FOBAPROA the right to exercise (without the need for execution of the pledge) all corporate and ownership rights over such pledged share (including voting rights). The law continues to require that a share be valued at 75% of book value for purposes of calculating the number of shares that must be pledged as collateral for preventive support provided by FOBAPROA.

On February 16, 1995, immediately upon the entry into force of the amendments to the Credit Institutions Law and Financial Groups Law clarifying FOBAPROA's power to vote the shares of financial institutions pledged as collateral for preventive support, FOBAPROA acted under the new legislation to restructure the capital of *Banca Cremi* and *Banco Union* to eliminate the interest of its existing shareholders. The share capital of these two banks is now wholly-owned by FOBAPROA as the financial authorities consider plans for final disposition of the institutions and/or their assets. Also in February 1995, the CNBV ordered an immediate management intervention of *Grupo Financiero Banpais - Asemex* after inspections turned up sharply increased past due loans, a shortage of capital and irregular related party transactions. An intervenor and an intervention committee
were appointed and the management, although not the ownership, is now under the control of the authorities.

D. Increased Provisions

On February 22, 1995, the CNBV required all banks to increase the level of provisions to the higher of: (a) 4% of the loan portfolio; or (b) 60% of past due loans; or (c) provisions required from quarterly loan classifications under earlier rules. The new requirement reflected a concern that careful loan classification and provisioning had become difficult for banks to manage in the context of an economic crisis affecting a majority of borrowers. All banks found themselves required to raise provisions under the new formula, but in doing so, several fell short of the requirement for 8% capitalization. Aggregate loan loss provisions increased substantially from N$24.5 billion at the end of 1994 to N$54.1 billion by the end of July 1995.

E. Temporary Recapitalization Program (PROCAPTE)

In February 1995, the Government introduced the Temporary Capitalization Program (Programa de Capitalizacion Temporal or PROCAPTE) to assist those banks that, due to the effects of the crisis and the requirement of increasing provisions, were unable to comply with the minimum 8% capitalization rule. Under the program, FOBAPROA purchased subordinated convertible debentures from participating banks in amounts sufficient to raise their ratio of net capital to risk-weighted assets to 9% and the banks deposited the proceeds in an account at the Banco de Mexico which paid interest at the same rate as the rate on the debentures. Under PROCAPTE, whenever a participating bank’s capitalization ratio falls below 8.5%, FOBAPROA may subscribe additional subordinated convertible debentures sufficient to restore the bank’s 9% capitalization ratio. FOBAPROA is required to convert the subordinated debentures outstanding at the end of five years into equity shares of the bank. However, the convertibility feature may be invoked earlier if a participating bank’s capital falls below 2% of its risk-weighted assets, or if the bank’s capitalization, excluding the PROCAPTE obligations, varies more than 25% from the trend of average capitalization of all the banks participating in the program. If, on the other hand, a bank’s capitalization ratio improves to exceed 9%, the bank may redeem

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14 The program details were published in a circular dated February 24, 1995 of the Banco de Mexico address to commercial banks.
(partially or in full) the subordinated debentures held by FOBAPROA prior to their conversion.

The objective of the PROCAPTE program was to permit under-capitalized (but solvent) banks to continue to operate, while encouraging their prompt recapitalization through the threat of dilution presented by the mandatory convertible subordinated debentures. By March 31, six banks had entered the scheme (including Mexico's third-largest bank, *Serfin*). The combined equity of these six banks, which amounted to N$10.2 billion at the end of 1994 (equivalent to 22.8% of the system's total equity), had decreased by almost N$3.0 billion during the first two months of 1995. Their average capitalization ratio had declined from 8.13% at the end of 1994 to 5.82% by the end of February 1995. The PROCAPTE obligations issued totaled N$6.5 billion, thereby enabling the banks to raise their average capitalization ratios to 9.60%. A seventh capital-deficient bank, *Probursa*, was given additional time to meet the minimum capital requirements in anticipation of an agreement by *Banco Bilbao Vizcaya* (BBV), a Spanish bank and already an important shareholder, to make a substantial capital infusion and convert *Probursa* into an affiliate. As of this writing, only three commercial banks remain in PROCAPTE, two having recapitalized in return for FOBAPROA's purchase of a substantial part of their portfolio (described below) and one having been intervened.

**F. Medium-term Management of the Banking Crisis**

1. **Bank Recapitalizations**

Due at least in part to the actions described in the previous section, the peso devaluation and the subsequent economic recession were not accompanied by a collapse of the banking system in the months immediately following the devaluation. However, even after such steps, it was evident that Mexico's banks needed to increase their capital substantially in order to assure that a slow recovery would not again place the soundness of the banking system at risk. Attracting new capital to the banking system was clearly a priority of the authorities once the immediate crisis had passed. The final agreement between the Mexican authorities and BBV for the recapitalization of *Probursa* proved to be a model for the recapitalizations of other Mexican banks which have followed.

In the *Probursa* transaction, FOBAPROA agreed to partially clean-up *Probursa*'s balance sheet by purchasing loans from its portfolio at book value less proper provisions, as determined by external
auditors. In return, BBV agreed to make a capital infusion into the bank equal to one-half the value of the portfolio purchased by FOBAPROA. FOBAPROA paid for the Probursa portfolio with ten-year bonds bearing interest at a rate equal to that on 28-day Mexican treasury bills. According to the agreement, the purchased portfolio would continue to be managed by Probursa, but for the account of FOBAPROA. As a result of this operation, Probursa's ratio of net capital to risk-weighted assets increased to 10.1% by the end of July 1995.

A variation on the Probursa recapitalization model was subsequently applied in the case of Mexico's third-largest bank, Banca Serfin, with the controlling Mexican shareholder group agreeing to inject additional capital raised from their own and outside resources. In July 1995, FOBAPROA purchased loans from Serfin totaling N$4,940 million, on the condition that Serfin's shareholders purchase N$1,240 million in shares, N$930 million in convertible subordinated bonds and N$600 million in non-convertible subordinated bonds. As in the Probursa example, Serfin continued to manage the loans purchased by FOBAPROA. Serfin, however, agreed to share 20% of the losses the portfolio might ultimately generate, thereby preserving its incentive to effectively manage the portfolio. The operation permitted Serfin to exit the PROCAPTE program by retiring the mandatory convertible subordinated debentures issued under that program and also to increase its ratio of net capital to risk-weighted assets from 10.0% at the end of March to 11.0% at the end of July.

The authorities have since reached agreements for the recapitalization of Banco Atlantico, Banco Promex and Banco Internacional and their exit from PROCAPTE. The percentages of capital injected in the form of shares, convertible subordinated debt and non-convertible subordinated debt, and the timing of the injections of new capital, have varied among agreements. As of this writing, although agreements with these three banks have been publicized, the purchase of portfolio by FOBAPROA and the injections of additional capital are still awaiting consummation. It is expected that some or all of the remaining banks in the PROCAPTE program will ultimately reach similar agreements permitting them to exit that program.

G. Debt Restructuring - UDI Scheme

On April 1, 1995, the Mexican Congress approved legislation permitting the use of an inflation-indexed unit of account for financial
transactions (Unidad de Inversión or UDI). Both new transactions and restructurings of pre-existing loans could be denominated in UDIs. The value of the UDI in pesos is updated daily by the Banco de Mexico based on its estimate of the consumer price index. Unlike certain other experiments with indexation (such as Unidades de Fomento in Chile), UDI indexing of non-financial contracts, such as wage agreements and commercial contracts, was not authorized. The UDI was introduced solely to permit financial contracts to be denominated or restructured in a real unit of account, insuring borrowers against rapid increases in real interest rates while assuring lenders a rate of return in excess of inflation. Denominating the principal amount of a new or restructured loan in UDIs also has the effect of reducing or eliminating the accelerated real amortization of loans that results when high inflation eats away at the principal. Accelerated real amortization is undesirable from the borrower’s prospective, since it concentrates repayment (in real terms) in the earliest payments and causes lenders to charge higher interest rates to compensate for the erosion of the principal by inflation.

Of course, banks could not provide much in the way of UDI-denominated credits without a source of UDI-denominated funding from the public or the capital markets. In order to accelerate the application of UDI-denominated restructurings, especially for viable borrowers encountering difficulty in servicing their earlier non-indexed debts, the government introduced a series of support programs (programas de apoyo), granting banks UDI-denominated funding for limited amounts of qualifying loans to industry, housing, states and municipalities and certain development banks’ loans. Under these programs, the government lends the banks funds to finance the restructured loans at a real rate of interest (by denominating such loans in UDIs). The government in turn finances this extension of credit by borrowing from the banks at market determined nominal interest rates based on the 28 day Mexican treasury bill rate. Restructured loans financed by banks through these programs are segregated into trusts, with the proceeds of such loans applied, in part, to the amortization of the government-provided funding.

Apparently, due in some part to their complexity and to the difficulty of explaining UDIs to certain types of borrowers, commercial

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15 The law governing the calculation and permitted application of UDIs was published in the Diario Oficial, April 1, 1995, at 2.

16 The complex details of the UDI support programs are set forth in a series of circulars, beginning with Circular number 1234 of the CNBV, dated April 24, 1995.
banks have been slow to make full use of the UDI support programs. Only in the area of mortgage lending, where Mexican borrowers' experience with indexed instruments made the UDI program perhaps more understandable, has the response been dramatic.

H. Debt Restructuring - ADE Scheme

Once the interest rate "bubble" of the early months of the crisis was over, the government and the banks were anxious to encourage enterprises to reach agreement with lenders and return to servicing non-performing loans. On August 23, 1995, an additional program was instituted by the government to provide direct interest subsidies to certain borrowers from commercial banks. The Agreement of Immediate Support of Bank Debtors (Acuerdo de Apoyo Inmediato a Deudores de la Banca or ADE)\textsuperscript{17} negotiated between the government and the Mexican Bankers Association was intended to preempt more extreme measures being promoted by certain borrower pressure groups and bring loans to viable borrowers back into performing status. The ADE program accelerates the restructuring of non-performing as well as performing loans to viable borrowers by bridging, for a one-year period, the gap between what borrowers were willing to pay and what lenders were willing to accept. There is a cap on the maximum amount of a restructured loan that can benefit from the program as well as a limit on the interest subsidy provided, both of which vary depending on the class of debtor. The program also expanded the original UDI program to include credit card and consumer loans.

The ADE program is available for credit card balances, personal consumer debt, mortgage loans and commercial debt of enterprises. Loans of borrowers signing a letter of intent to renegotiate their debts with creditors by October 31 were eligible for the program.\textsuperscript{18} The signing of a letter of intent obligates the lending bank not to institute enforcement actions against the debtor until January 31, 1996 and obligates both parties to undertake best efforts to reach an agreement on restructuring in the meantime. Under the program, interest payable by the borrower is capped during the year of the program's duration at 38.5% for credit card balances, 34% for consumer loans and 25% for commercial loans. Mortgage loans restructured into UDIs are capped for a year at UDI + 6.5%. The government is financing the

\textsuperscript{17} The ADE program was heavily publicized and banks instituted training programs for branch employees to educate them about the details of the program. Most or all branches of Mexican banks made available to the public brochures clearly explaining the program.

\textsuperscript{18} Credit card loans are eligible for the program even without a letter of intent.
subsidy provided by the ADE program through the issuance of bonds to the commercial banks. According to newspaper reports of CNBV figures, as of October 27, 1995, 71.9% of eligible credit card loans, 60.0% of mortgages, 23.5% of business loans, and 24.6% of consumer loans had been restructured.