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The Crisis of the Mexican Banking System

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I. Introduction

One of the most important conditions that must be met in any economy to experience sustained growth is to have an efficient financial system in which interest rates reflect the opportunity cost of funds. In this way, a competitive and efficiently regulated financial system provides incentives for the efficient allocation of resources. However, if the financial system is distorted by regulatory barriers to entry, or unwarranted interference with private institutions' operations, market interest rates will not function efficiently as a price indicator for allocating financial resources.

Given the recent events affecting the Mexican economy, especially the crisis that followed the December 1994 devaluation and the impact it has had on the banking system, one of the challenges that the government now faces is how to recover growth given the precarious situation of the banking sector - a situation which has hindered their ability to expand credit to the private sector.

The purpose of this essay is to analyze why the Mexican banking system came to such a critical point, and what can be done by the government and by the banking institutions to avoid this collapse. The central line of argument is that the situation banks are facing now is the direct result of a very distorted set of regulations enforced between the 1960s and late 1980s. These regulations served two purposes: First, to assure a relatively cheap source of funds to finance the public sector financial deficit, and second, to protect existing institutions from competition from either new Mexican institutions or from foreigners.

This essay is organized as follows. In the second section a description of the main regulatory framework of the financial system, particularly the banking sector, is presented. Emphasis is given to those aspects directly related to the determinants of the interest rate spread between the lending and deposit rates, and the process of credit evaluation by banks. Also examined are the regulatory changes that have taken place in the financial system since the beginning of this decade, with a focus on the opening of the financial system to new participants, national and foreign, in the spirit of the North American Free Trade Agreement (NAFTA). The third section deals with the critical situation now confronting the banking system, the attitude towards it from the banks themselves, as well as a description and evaluation of the measures the government has taken to deal with the problem. Finally, some conclusions on the future of the Mexican financial system are made.

II. Regulation of the Banking System

The present macroeconomic crisis plaguing the Mexican economy is a result of the December 1994 exchange rate devaluation and has revealed the structural inefficiencies of the banking system. In addition to being a consequence of the increased macroeconomic instability, the problems Mexican banks are now facing have their origin in the inefficient regulatory regime applied for many years by the government. From 1941 to 1989, the banking system was viewed by the government as a way to promote growth by means of exogenous directives given to banks on credit allocation, controls on interest rates as well as in the operation of the banking institutions (e.g., determining number and location of branches). Moreover, during the 1970s, banks' deposits were used by the government, by way of the reserve requirements on deposits, as a cheap source of funds to finance its growing financial deficit. In addition, the Mexican banking system operated in an environment closed to competition, either from inside the economy (except from a few brokerage firms) or from foreign intermediaries.

The structural inefficiencies of today's banking system date back to the 1941 Law of Credit Institutions. In that law, banks were expected to be highly specialized. Within each individual institutions there were deposit banks, saving banks, investment banks and mortgage banks, each being able to receive deposits of only one kind, and without being able to transfer excess resources among different departments of the same holding institution. In addition to the institutional structure of each bank, there were two different levels of lending. On the one hand, there were resources that banks could allocate freely at market prices. On the other hand, there was credit for which the use and rates charged, were determined by the government. With this policy of "selective lending", the government tried to induce growth in some specifics sectors of the economy, like manufacturing, which was shielded from external competition by an import substitution policy of growth.

The "selective credit" policy, granted with a subsidy in interest rates, resulted in an inefficient sectorial allocation of financial resources as it was done more based on government preferences on which sector to support (mainly the industrial sector) than on real credit needs. For the industrial sector, interest rate subsidies represented an explicit inducement to use capital, and were combined with an implicit subsidy represented by barriers to trade, in an attempt to spur-on industrial growth. However, these subsidies, which increased the rate of return on investment, favored the adoption of capital intensive technologies, even though Mexico is a country with abundant labor.

Aside from this effect, as banks faced the obligation to lend a substantial fraction of total credit at below market rates (which represented losses on the credit granted), there was upward pressure on the interest rate charged on freely allocated credit - this was how banks made up for the losses. This resulted in an higher interest rate spread than would have been observed with a less distortionary regulatory regime.

In addition to the government policy of determining lending rates, the government also fixed deposit rates. During the years of very low inflation, like the 1960s, real rates were positive. But during the 1970s, with the acceleration of inflation, rates were usually negative. Moreover, it was hazardous to fix deposit rates as this meant that all banking deposits comprised potential monetary base expansion. This means that, in the event of some run on the banking system, the goal of price stabilization could have been extremely difficult to achieve.

Regulatory changes began in 1975, when the government authorized banks to consolidate their deposit operations, and transfer resources across maturities. Although this by itself increased the efficiency of banks, macroeconomic deterioration and the increase in reserve requirements to finance a growing fiscal deficit, plus the fact that the "selective credit" policy continued (with ever increasing negative lending real rates of interest), resulted in ever greater banking inefficiencies. This led to a larger spread between rates paid on deposits and rates charged in freely allocated credit, both in nominal terms as well as in real terms, and a loss of banks' total participation in the financial system as well as a significant decrease in financial deepening in the economy.

On the other hand, with the acceleration of inflation, saving instruments (mostly fixed income bonds) became obsolete, so new instruments were introduced (CD and IOU´s), although the interest rate paid was still fixed by the government. In addition, maturities on saving accounts became shorter, while the credit granted was naturally of a longer maturity. This meant a significant time-asymmetry between deposits and credit, resulting in an increase in the interest rate spread.

With the crisis of 1982, the government took over the banking system and merged 52 banks into 18. However, the opportunity to introduce more efficient regulation was not taken. Furthermore, governmental administration of banks generated a problem in terms a lack of definition of property rights and a principal-agent problem, facts that increased significantly the inefficiencies in banking operations and in the allocation of resources.

During the years the banking system was owned by the government, bank administrators had the main objective of trying to maximize their market share in total deposits and credit, instead of trying to maximize profits. This, together with a lack in proficiency in credit evaluation, resulted in an increase in loan defaults.

In 1988 the government began to deregulate the Mexican economy, including the financial system. Controls on interest rates were abolished. In addition, the "selective credit" scheme was abandoned so banks could freely allocate credit by sector. In addition, reserve requirements on deposits were substituted for a "prudential reserve policy" on credit. In this way, banks had to keep a certain percentage of precautionary reserves on credit, the percentage being variable depending on the quality of credit, from 0% on the best quality to 100% on defaulted debt.

Modernization of the financial system proceeded and by 1991 the government made the decision to privatize banks and allowed the formation of financial groups, comprising banks, brokerage firms, insurance firms, leasing institutions, and exchange rate firms. After the privatization process was completed in 1992, the government allowed the creation of new domestic banks. Finally, with NAFTA, the financial system was opened to foreign participation, (although on a very limited basis) with individual banks having a limit of 1.5% of the total capital of the banking system. When combined with the opening of the financial system, all these reforms had the objective of increasing the efficiency of the financial institutions and, in particular, the banks. Things were going more or less according to plan when the macroeconomic crisis began in December, 1994. Few sectors have been more affected by that crisis than banking.

III. The Crisis and its Effect on the Banking System.

As a result of all the distortionary regulation Mexican banks have been much less efficient than those in other countries, particularly those in the developed nations. However, because of the market structure, Mexican institutions have been profitable. The three largest banks have a 60% share of the market and the system as a whole has been isolated from external competition. Table 1 (below) shows the evolution of the return on assets and on equity for the period 1991-1995.

Table 1
Mexican Banking System
Return on Assets and Equity
1991-1995

Year	Return on Assets	Return on Equity
1991	1.01	32.64
1992	1.47	42.20
1993	1.61	40.12
1994	0.85	13.22
1995[1]	0.64	15.83

[1] September 1995

Source: Statistical Bulletin, National Banking Commission.

From 1991, when the privatization process began, to 1993, return on assets of the banking institutions was rising. Returns have been well above what is observed in other countries, the ratio being 0.08% in the U.S., 0.47% in Canada, 0.22% in Germany and 0.24% in Japan. But by 1994, the rate of return dropped dramatically as a result of the political and economic events Mexico experienced, starting with the assassination of the majority party's presidential candidate, the increase in interest rates, the exchange rate devaluation and the increase in defaulted debts.

The deterioration of the economy reached its climax in December 1994, when the newgovernment made an erroneous reading of the current account deficit and decided that a devaluation was needed. The instability generated by the devaluation, coupled with a very restrictive monetary policy and the inability of the Mexican government to access the foreing capital markets, generated an increase in the rates of interest, both in nominal and real terms. The significant increase in interest rates, from levels of 15% in December 1994 to almost 90% in March 1995, had the effect of reducing the market value of assets held by banks (mainly fixed income bonds issued by the government and by private firms). In addition, the contraction of economic activity means that many firms and individuals are not able to service their debts. As a consequence, there was anincrease in defaulted credit, which reached 20% of total outstanding credit by the end of 1995, and now stands at around 25%.

By itself, the significant rise in defaulted debts is the greatest problem the Mexican economy is experiencing. The explanation for this phenomenon, besides simply the contraction of economic activity, centers on the way banks have performed in the past regarding their policies on credit evaluation. As mentioned above, during much of the past 50 years, banks have been subject to a policy of "selective credit" and high reserve requirements in order to help finance the government. This has rendered the banks unable to properly evaluate the credit demanded by firms and individuals.

When firms went to a typical Mexican bank and asked for credit, the bank used the past financial history of the firm in deciding if the loan was to be granted, never taking into account the viability and profitability of the project to be financed or the sector in which the firm was active. Since the economy has been experiencing significant structural change since 1988 when it was opened to foreign competition, evaluating the past history of the firm can be a poor guide in assessing current credit-worthiness - firms that were profitable in a closed economy may not be in an open one. To a great degree, the rise in defaulted loans can be attributed to very deficient credit evaluation by banks.

With the increase in non-performing loans, and consequently lower revenues on outstanding credit, banks increased the spread between lending and deposit rates, trying to compensate for the income lost to defaulted loans. By March 1995, lending rates reached levels of 130%, while deposit rates stood around 75%. However, a relation between this spread and income from outstanding loans can be found, as the probability of a firm being able to service its debts falls as the spread increases, that is, the policy followed by banks generated an adverse selection problem. Moreover, given that all deposits are fully insured by the government, this caused a moral hazard problem, as the stockholders of banks are not responsible for their obligations

The increase in defaulted loans, the legal requirement for banks to build up reserves on credit - both of which acted like a tax on financial intermediation - combined with a restrictive monetary policy, resulted in a significant drop in real outstanding banking credit. As credit is an important factor of production, the reduction in real outstanding credit resulted in a very deep recession, the worst since the Great Depression, with the GDP dropping by almost 7% and domestic real aggregate demand falling by almost 15%. The dramatic fall in the levels of economic activity are best explained by the banking credit contraction, as can be seen in Table 2.

Table 2
Financial Aggregates
Annual Real Rate of Growth

		Money Base	M4	Bank Credit
1995	January	9.3	-0.9	14.3
	February	4.0	-8.4	8.5
	March	-9.1	-14.7	0.2
	April	-12.3	-18.3	-8.5
	May	19.1	20.6	12.8
	June	12.3	23.3	18.1
	July	23.9	24.4	21.5
	August	23.8	25.8	23.5
	September	24.9	27.4	26.8
	October	25.8	27.8	28.9
	November	26.5	28.4	31.5
	December	-22.8	-25.2	-34.0
1996	January	-25.4	-21.9	-33.6
	February	-22.6	-18.4	-32.1
	March	-14.8	-11.9	-27.2
	April	-12.4	-3.9	-24.8
	May	-2.3	-0.5	-21.9
	June	-0.6	-1.7	-18.2

Source: Bank of Mexico

The risk of increasing defaulted loans as a percentage of total credit, which by the end of 1995 had reached a level of 20%, was that the banking system as a whole may go broke, jeopardizing the whole stabilization program. Given the rising probability of a major collapse of the banking system, the government has been helping both the banks and the debtors. First, it has been buying bad loans from the banks as well as supplying resources to increase the capital base of the institutions. Second, the government has accelerated the opening of the financial system to foreign institutions, allowing foreign banks to own a majority stock of any Mexican bank, except for the three largest ones, while simultaneously increasing the market share any individual foreign bank can have. Third, it introduced a new unit of account called "Units of Investment" (UOIs). This new instrument, which can be applied to loans and deposits, fixes the real rate of interest and the principal is indexed on a daily basis to the rate of inflation. With this instrument, the inflationary premium that interest rates are having is eliminated.

Table 3
Annual Rates of Interest

		Nominal[1]	Real[2]
1995	January	44.8	-0.8
	February	47.3	-3.0
	March	86.0	15.3
	April	85.3	-12.4
	May	60.5	10.1
	June	49.5	12.6
	July	43.4	20.8
	August	37.6	18.9
	September	35.5	-0.8
	October	42.6	18.4
	November	58.2	31.3
	December	51.3	11.9
1996	January	42.7	-0.5
	February	39.7	12.5
	March	43.7	18.3
	April	37.6	4.0
	May	30.5	9.1
	June	29.6	10.7
	July	33.2	17.4
	August	25.5	10.3

[1] Average Internbank Lending Rate
[2] Ex-post.
Source: Bank of Mexico

By the time the UOIs were introduced, it was hoped that, together with a drop in interest rates, the problem of rising non-performing loans would have been solved. However, a new episode of increased macroeconomic instability affected the economy during October and November of 1995. The increase in interest rates, as well as an acceleration of inflation, meant that those loans that were restructured in these units of account became difficult to pay off, especially credit card loans, consumer loans and mortgage loans. This resulted in a new increase in non-performing loans, weakening once more the capital base of the banking institutions.

A new round of government support was implemented, both for banks and debtors, mainly the mortgage debtors and small and medium size firms. However, the government's attempt to solve the problem, although helping to avoid a meltdown of the entire financial system, has not solved the problem. By implementing different programs that are focused on trying to solve a flow problem, it has not solved the asset problem as the economy has not recovered fast enough nor have interest rates fallen fast enough. The fiscal cost, in present value, of all programs implemented to help debtors pay their debt service is estimated to be at around 15% of GDP. It is worth noting that if the government had solved the bad loans problem, focusing on buying all of it in April of 1995, the fiscal costs would have been "only" 5% of GDP, the banking system balance sheet would by now be clean of all these non-performing loans, and with the capital base they have, real credit would be growing and the economy expanding.

However, as the non-performing loans and reserve requirements are acting as a tax on financial intermediation and interest rates spreads are still very high, the economy will not grow significantly enough, at least in 1996, to solve the bad loans problem. It is expected that during 1996 the Mexican economy will grow at around 4%; not enough to solve, by itself, the non-performing loan problem. Moreover, the ratio of non-performing loans to total outstanding credit, which has reached 25%, is under-estimated when using international banking accounting principles (the best known being USGAAP). When this accounting system is adopted, banks will need to build-up new reserves and capital to account for the increase in non-performing loans which, with Mexico's present accounting system, are accounted for as performing credit.

The requirement to increase reserves as well as capital means that banks will not have enough resources to expand credit, so the prospects of growth for the Mexican economy are still very weak. The once and for all solution is for the government to buy out all non-performing loans from banks, swapping them at a discount for a long term bond. This measure will eliminate a large fraction of outstanding credit from the banks' balances and allow these institutions to increase their credit with the same capital base and, as a result, make it possible for the economy to grow again.

IV. CONCLUSIONS

The Mexican banking system is a very inefficient one. The present macroeconomic crisis and the effect it has had on banks - especially the problems related to the significant increase in defaulted loans - could jeopardize the stabilization program. Trying to avoid the possibility of generating hyperinflation, the government introduced a new unit of account that eliminates the inflationary effect of premium nominal interest rates. It was hoped that with this new instrument, the risk placed on the banking system (and the economy in general) would reduce the problem of bad loans. However, the increased macroeconomic instability that affected the economy at the end of 1995 has meant that debtors are having a difficult time paying off their debts, so the ratio of non-performing loans to total outstanding credit has continued to rise, weakening the banking system and delaying the recuperation of the economy. A permanent solution would be for the government to buy off, in a single round, all the non-performing loans that the banks have. Although this would mean taking control of these institutions (with a loss to present stockholders) it is perceived as the only way to eliminate the present distortions and allow the economy to grow again.

The mid-term future of the banking system appears to be secure. A growing number of banks and the increased participation of foreign banks, plus better regulation - like the new accounting principles and a less than 100% insured deposits - will increase efficiency and lower spreads. Since the macroeconomic crisis is expected to be transitory, and inflation will have a lower trend in the months to come, ex-post real rates of interest will also fall as the inflationary premium on nominal interest rates diminishes.