Housing Finance in Mexico: A 1995 Update

by Michael J. Lea

INTRODUCTION

The Mexican economy has undergone major changes since the initial publication of "The Structure of Mortgage Markets in Mexico and Prospects for Their Securitization" by Christopher Barry, Gonzalo Castañeda and Joseph Lipscomb in the fall of 1994 (reprinted in this issue of the *Housing Finance International*). The pressure of an unsustainable current account deficit led to a devaluation of the Mexican peso in December that in turn undermined confidence in the economy and induced foreign capital flight from the country. The government lost control of the currency and was forced to let it float several days after the initial devaluation. Since early December 1994, the peso has lost over 50 percent of its value against the dollar. Although the international community has put together an unprecedented aid package for Mexico, and the government has announced a stringent austerity program, investor confidence in peso denominated debt has not returned. As a result, short-term interest rates have reached 70 percent, inflation is forecast to be 42 percent for 1995 and the economy is projected to have at least a 2 percent fall in real GDP.

Dr. Michael J. Lea, Editor of *Housing Finance International,* is Director of Research of the International Union of Housing Finance Institutions and principal of Cardiff Consulting Services, Cardiff, California.

These events have had a wrenching effect on the Mexican banking system. A mismatch between peso denominated assets and dollar denominated liabilities has seriously reduced bank income. Loan arrears have been rising sharply as firms and households are impacted by the sharply rising interest rates. A number of banks have received liquidity infusions from the Central Bank and the government took over the eighth largest bank at the beginning of March.

The condition of the economy and the banking system will have major effects on the housing finance system in Mexico. The commercial banking sector had reduced its volume of mortgage lending prior to the devaluation. The banks are unlikely to extend new loans until the financial situation stabilizes. The government austerity measures suggest that no new on-budget housing assistance is likely. Plans to transfer FOVI out of the Central Bank and establish it as an autonomous housing bank have been put on hold.[1] The possible introduction of securitization (discussed by Barry et. al.) will be set back indefinitely.

This note reviews the history of housing finance in Mexico, focusing on the institutions and techniques used to mobilize funds and manage the inherent risks in mortgage lending, and offers some observations on the ability of the system to withstand the current shock and resume its recent path of expansion. This material is derived in part from a study by Douglas Diamond and Michael Lea for the Habitat II Preparatory Conference in Nairobi, Kenya, in April 1995.[2]

INSTITUTIONAL STRUCTURE

The historical development of housing finance in Mexico has several significantly different features from that in Canada and the U.S. The earliest mortgage lenders appear to have been mortgage banks. In 1914, mortgage banks had aggregate assets of about 100 million pesos, approximately 1/7 of commercial banking assets. Both the commercial and mortgage banks in pre-revolution Mexico were controlled by foreign institutions. In the case of the mortgage banks this may imply funding on European capital markets. Mortgage banks appear to have been the largest private sector provider of housing finance until the 1960s. Building societies and savings banks were created in the 1940s in Mexico, but they never became a significant presence in the financial markets.

The government has played and continues to play a major role in financing housing in Mexico. The first public housing finance institution, Banco Nacional Hipotecario Urban y de Obras Públicas (National Urban Mortgage and Public Works Bank), was created in 1933. Since that time, the government has introduced housing pension funds (in reality, wage taxes earmarked for housing) for private and public sector workers, a Central Bank rediscounting facility and various public sector programs focused on the informal sector. Despite an enormous increase in commercial bank mortgage lending since privatization, the banks serve only the top 3 to 5 percent of the household income distribution (10 times the minimum wage and above). The government's direct funding programs are targeted to households with income less than or equal to 2 times the minimum wage and indirect programs are targeted to workers earning approximately 2 to 3 times the minimum wage.

The small size of the private mortgage market in Mexico is the outcome of years of repression of the financial sector and the difficulties of managing credit risk. During the 1960s and 1970s there was increasing use of the commercial banks as instruments of financial sector policy (i.e., directed lending). The banks were subject to quantitative controls on their lending (e.g., requirements to lend a certain proportion of their liabilities for the purpose of constructing low-cost housing) and differential reserve requirements favoring certain types of loans at the expense of others. These controls, combined with the use of fixed nominal rate mortgages in a highly inflationary environment, led to the cessation of voluntary lending. The mortgage bond market succumbed to the effects of inflation and controls on secondary market trading in the 1970s. This process culminated with the nationalization of the banks in 1981.

The Mexican government has followed a private market enabling strategy since the late 1980s.[3] A major step in this direction was the privatization of the banks in 1991 (along with dropping quantitative restrictions on their lending). Since their privatization, the commercial banks have originated a greater new peso volume of mortgages than the government. However, their lending volume declined in 1994, even before the devaluation crisis, reflecting problems with the mortgage loan portfolios. The major problems have been with the performance of the dual indexed mortgage (DIM) instrument (discussed below) and their lack of payment collection capabilities and systems.

PERFORMANCE OF THE DIM

The dual-index mortgage, as described in Barry et. al., has been cited by the World Bank as a major factor in reviving mortgage finance in Mexico. The advantage of the DIM is that it eliminates the "tilt" problem inherent in loans with fixed nominal payments, whereby early payments have much higher real values to compensate for the erosion in the real value of later payments. In its pure form it is a loan that can be both profitable to the lender (at either a fixed or floating real rate, depending on the source of funds) and affordable to the borrower. Any indexed mortgage, however, dramatically changes the risk allocation relative to a fixed nominal rate mortgage. The balance due will decline much more slowly and the term can actually rise. This increases the chance that at some point the collateral value will decline below the loan balance (if the LTV ratio was fairly high to begin with). In addition, the bank will not have as high a cash flow coming from the loan to relend or to meet liquidity needs. In other words, the bank is taking on more credit risk, cash-flow risk and liquidity risk. All of these risks are manageable, but they must be recognized in advance.

The original DIM, which is used by FOVI, works by adding to principal any difference in the payment accruing based on a variable market interest rate (the average cost of funds of the banking system) and a lower payment due initially set by the government and adjusted thereafter according to changes in wages (the minimum wage index). This loan performed well during the late 1980s when real interest rates were falling and real wages were rising. The commercial banks in Mexico utilize loan designs which are variants of the original DIM design. In particular, the loans made by the banks after privatization had much wider spreads than the FOVI loans (due both to the mark-up of the loan rate over the benchmark index and mark-down from the index to the payment rate) and also a maximum term. As a result of wide spreads between the payment and loan rates, the loans began accruing large amounts of negative amortization immediately. The negative amortization build-up was compounded by an economic environment in the early 1990s characterized by high real interest rates and declining real wages. As a result, the real balances on the loans were actually rising.[4] This led the banks to "restructure" many of their mortgages. The restructuring has involved extension of the term of mortgages, decreases in the spread between the accrual rate and index value, and a shift away from the minimum wage index to the inflation index for payment adjustment.[5]

The experience with the DIM in Mexico suggests that the initial design and economic conditions matter for performance. The DIM is premised on the assumption that real incomes will not fall (for extended periods of time) and that the real balances on the loan will decline over time. During the 1990s, real interest rates rose and real wages fell. The flexible term feature of the loans may be able to accommodate this increase as long as it is not prolonged (once real interest rates decline and real wages grow the term will begin to shorten again). However, the wide initial spreads on the loans originated by the commercial banks guaranteed a rapid initial build up of negative amortization and the lack of a flexible term feature meant that caps on negative amortization were in danger of being hit. To avoid payment shock, the banks were forced to lower their spreads and lengthen the term—steps they would have preferred not to have taken. The switch to the inflation rate as the index for the payment rate has also created affordability problems for borrowers.

MORTGAGE RISKS

The devaluation crisis is likely to exacerbate the credit risk inherent in mortgage lending for several reasons. The default rates on their mortgage portfolios will rise due to an increase in unemployment. Rising inflation rates could result in severe payment shock on the commercial bank loans if nominal wages do not keep pace.[6] Also, an increase in negative amortization due to rising real interest rates may cause default problems if borrower equity is eroded.

The government has provided partial (50 to 60 percent) guarantees on loans meeting the guidelines of FOVI (i.e., low- to moderate-income households). Because of the perceived high credit risk, however, lenders were reluctant to extend credit to these households prior to devaluation even with the partial guarantee. The Mexican government has refused to increase the insurance coverage because of the high perceived agency risk associated with provision of 100 percent guarantees. Until the foreclosure process is streamlined and made more certain, and the lending and servicing practices of the primary lenders improved, credit risk is likely to remain a major impediment to expanded provision of mortgage finance in Mexico.

Rising real balances on mortgage loans created liquidity concerns among commercial banks even before the devaluation crisis. Many banks responded by limiting their portfolio investment in mortgages to 25 percent of assets or less. The devaluation crisis will worsen the liquidity problems. An increase in the real interest rate will increase the build up of negative amortization. Also, the banks may be forced to further extend terms or reduce payment rates to avoid massive mortgage defaults.

CONCLUSION

How will the Mexican government respond to this crisis? The first step will be to save the banking system. The Central Bank has made short-term funds available to the banks to ease their liquidity problems. At this time, however, it has indicated that it will not let under-capitalized or poorly managed banks remain open, exposing taxpayers to significant risk through their lending and deposit taking activities. Whether or not this strategy works depends on the extent and length of the crisis and the true asset quality of the banks prior to the crisis. The last episode of devaluation in the early 1980s also weakened the banks and was a factor (although not the only factor) in their nationalization.

Beyond the crisis, it is likely that the current government will continue to pursue an enabling strategy. Such a strategy could include streamlining the foreclosure process, improving competition in the financial sector and passing legislation to facilitate the sale of mortgages. Prior to the devaluation, the government had planned to spin FOVI out of the Central Bank and allow it to begin issuing bonds on both the domestic and foreign capital markets to mobilize funds for housing. Some of these funds would be used to refinance loans issued by newly created mortgage banks. This plan is obviously on hold until the government re-establishes itself as a credible bond issuer. However, if the situation stabilizes, this plan could increase the flow of long-term funds to the mortgage market as well as improve competition in the sector.

NOTES

[1] FOVI (the Housing Fund for Commercial Banks) acts as a rediscounter and partial guarantor of qualifying loans made by commercial banks. The alternative of combining FOVI with another development bank is also under consideration.

[2] Diamond, Douglas and Lea, Michael, "Sustainable Finance for Housing: A Contribution to Habitat II," Fannie Mae working paper, March 1995.

[3] Zearley, Thomas, "Creating an Enabling Environment for Housing: Recent Reforms in Mexico," *Housing Policy Debate*, 4, 2, 1993.

[4] FOVI loans have an initial term of 20 years with the possibility of extension to 30 years. The government will forgive any balance outstanding at the end of a maximum 30-year term. The commercial bank loans were originated with a maximum 20-year term (as the government will not forgive outstanding balances on their loans). Because of this rigidity, the mortgages contained a provision for increasing payments to amortize the loan over the remaining term once a certain level of negative amortization was reached (in essence turning them into a nominal ARM). Relaxation of the maximum 20-year term reduced the risk of payment shock when the negative amortization cap was reached.

[5] The minimum wage has lagged inflation significantly during the 1990s.

[6] The March government forecast was for an inflation rate of 42 percent with an increase in the minimum wage of only 10 percent. However, the government has abandoned the PACTO (a pact between labor, industry and the government) which attempted to keep private sector wages below the inflation rate.