# Lessons from the Financial Crisis in Mexico

Remarks by

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I would like to thank the organizers of the China International Finance Forum for the opportunity to participate, for a second time, in this important annual conference. It is a privilege to be back in this beautiful country and to take part in this forum in the opening session, which is devoted to the financial industry and financial cooperation.

On this occasion, I would like to share some lessons with you from the recent global crisis as it affected Mexico. My central argument will be that the factors that led to the crisis in the United States and other advanced countries were not present in many emerging economies, including Mexico. Although several explanations can be postulated for this observation, the regulatory and supervisory framework in many emerging economies seems to have played a crucially positive role. Also, the implementation of sound macroeconomic and financial policies likely exerted a favorable influence.

**Causes and effects of the global meltdown**

There is a consensus that a combination of factors contributed to the gestation of the recent global crisis. The various underlying elements that triggered the boom had at least one element in common: they all encouraged unsustainable risk taking by market participants. Highly leveraged positions were widespread, and they were based on the assumption that past gains from increasing housing prices would continue into the indefinite future.

As we now know, this enthusiasm created a bubble in the credit and housing markets that, as is always the case, ended in a bust. This collapse confirmed, once again, that asset prices cannot go up for too long, unless they are backed by fundamentals which are not always clear.

In searching for the causes of the crisis, one would like to identify the environment that encouraged the generalized underestimation of risks. By environment, I mean a set of institutions and economic policies that likely led to this untenable behavior. Even though some empirical research in this area has been undertaken, the relative importance of the causes is still being debated.

Let me start by arguing that financial innovation cannot be a cause of the crisis. It is, rather, a means to an end, like risk diversification and hedging. Loan securitization and operations with derivatives, such as credit default swaps, which were used intensively during the years prior to the crisis, certainly served as vehicles for credit expansion. Their utilization allowed many market participants to increase their leverage in a highly interconnected and complicated way. Those products, however, were only instruments but not the cause of the turmoil.

For expedience, I would like to classify the most commonly identified conditions for the crisis, as cyclical and structural. Regarding the former, two types of factors stand out. One refers to the unusually low interest rates that prevailed before the crisis, making borrowing cheap and causing asset prices to rise. Authors diverge in their views regarding the source and relevance of this factor.

While some economists argue that low interest rates mainly reflected the expansionary monetary policy prevailing in the United States and other developed economies, others interpret those rates as a result of excess global savings over intended investment. Indeed, there is an ongoing discussion about the importance of the possible deviation of U.S. monetary policy from the "correct" Taylor rule in nurturing the crisis. Although various empirical studies attribute different weights to monetary policy in the generation of the crisis, most of them recognize that it did play a certain role.[1]

The other type of cyclical conditions encompasses policies that were aimed at promoting the expansion of mortgage lending. Stimulus measures included fiscal subsidies for borrowers, as well as credit targets for financial intermediaries. For example, policies to make housing "affordable" for low-income people and the promotion of securitization by government-sponsored enterprises likely contributed to the boom of mortgage credit in the United States.

As for the structural factors, at the time, financial institutions had a poor regulatory and supervisory framework that facilitated excessive risk taking. Deficiencies included weak capitalization and liquidity standards for

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[1] For more on this controversy see, for example, Bernanke, Ben S., "Monetary Policy and the Housing Bubble," presented at the Annual Meeting of American Economic Association, Atlanta, Georgia, January 3, 2010 and Taylor, John B., The Fed and the Crisis: A replay to Ben Bernanke, *WSJ*, January 11, 2010.

intermediaries and government guarantees for investors and institutions, partly as a consequence of a "too big to fail" policy.

Some examples of the resulting arrangements that reflected inadequate incentives were: (a) compensation schemes in banks that privileged short-term gains in structuring financial products at the expense of adequate due diligence; (b) deficient risk evaluation of complex credit securities by rating agencies; (c) propagation of quasi-bank intermediaries that were not properly regulated; and (d) a high degree of leveraging by financial institutions, which probably expected government support in the event of problems.

Provided that the list of causes is reasonably complete, preventing future crises would seem to require only substituting such causes with the opposite conditions. Unfortunately, this prescription is too blunt to be useful. Any list of factors is bound to be incomplete, not only to explain the recent crisis but to anticipate future ones. More research is needed to confirm a set of sufficient conditions for crises. In any event, the identified factors would have to be general, so no mechanical application could be feasible or even desirable.

Let me turn now to the effects of the crisis. As I said, although the epicenter of the turmoil was the United States, many other economies were severely affected. Contagion to the rest of the world occurred first through well-known financial channels, depressing stock, currency and debt prices. The widespread financial instability came in the form of a global "flight to safety," i.e., flight to risk-free assets such as U.S. Treasury bills, in which country-specific factors performed, in general, a secondary function.

The stress on financial markets was accompanied by intense real effects, which were disseminated by a plunge in international trade and commodity prices. As a result, world GDP contracted by 0.6% in 2009 after having grown 3.0% in 2008 and 5.2% in 2007.[2]

In Mexico, the crisis had severe repercussions for the financial markets, especially in the form of a sharp depreciation of the peso against the U. S. dollar. Additionally, a fall in manufacturing exports, the reduction of international oil prices and a contraction in workers' remittances from abroad constrained Mexico's economic activity.

To partly offset these factors, the Mexican authorities implemented several measures. In the foreign exchange market, actions included interventions and U.S. dollar auctions with and without a minimum price for financial institutions; the agreement of a dollar liquidity swap line with the U.S. Federal Reserve Bank for US$30 billion; and the acquisition of a precautionary Flexible Credit Line (FCL) for around US$47 billion from the International Monetary Fund. With the exception of the FCL, which has been renewed because of its low funding cost, all these measures have been suspended.

[2] IMF *World Economic Outlook* April 2010.

In the domestic market, the Bank of Mexico auctioned purchases of long-term bonds and interest rate swaps with financial intermediaries. This did not noticeably affect the size of the central bank's balance sheet. Additionally, the Bank of Mexico reduced its policy interest rate by 375 basis points during the first seven months of 2009 and since then has left it unchanged at 4.5 percent.

During 2008 and 2009, various fiscal measures were also implemented which included some tax incentives for employment, the freezing of public-sector fees and fares, and increased government expenditures in infrastructure. Government-owned development banks also launched temporary guarantee programs to facilitate the refinancing of commercial paper issued by businesses and non-bank financial firms.

In spite of these measures, in 2009 Mexico's GDP fell by 6.5 percent. This profound effect from the crisis mainly reflects the economic integration of Mexico with the United States, as illustrated by the fact that more than 80% of Mexico's manufacturing exports are sent to its northern neighbor. Fortunately, since the second half of 2009 the Mexican economy has exhibited an upturn. The Bank of Mexico estimates that GDP will grow between 4% and 5% in 2010 and between 3.2% and 4.2% in 2011.

**The lack of an autonomous crisis in Latin America**

Notwithstanding the negative effects of the global crisis, many countries did not experience an autonomous crisis of the type observed in the United States and other developed economies. To different degrees and features, this group of countries encompasses many emerging economies, such as major Latin American countries.[3]

One common characteristic of these non-crisis countries during the years prior to the global crisis was the absence of an explosive growth of mortgage lending and housing prices. Even though in several countries loan expansion was relatively high, this dynamism reverted and corrective measures were implemented once signs of portfolio deterioration started to appear.

In particular, as a reflection of the business cycle, credit in Latin America slowed and even contracted during this period. Negative conditions affected the ability of borrowers to repay their debts, making non-performing loan ratios rise beginning in 2008. However, loan portfolio deteriorated moderately and did not reach unmanageable levels.

Thanks to their high loan-loss reserves, banks continued to function normally, without having any significant pressures of liquidity and even exhibiting profitability during the crisis. Capital adequacy remained stable at levels higher than 10% during the crisis, above the international 8% standard.[4]

What might explain this performance? The absence of or weaker presence of the aforementioned causes of the crisis seems to have set non-crisis countries

[3] In what follows and to different degrees, we include in the Latin America group Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.

[4] For more information, see Gallego, Sonsoles *et al*. "The Impact of the Global Economic and Financial Crisis on Central Eastern and Southeastern Europe and Latin America," *Documentos Ocasionales* 1002, Banco de España, 2010.

apart. While each economy has its own peculiarities, especially related to the state of development of its financial system, certain factors appear to be common.

First, most Latin American countries had implemented prudent monetary policies. These economies tended to have relatively conservative monetary stances because their average inflation has historically been higher than that of developed countries and, often, the process of convergence to price stability had not yet been completed.

Second, most countries in Latin America had not implemented particularly aggressive financial policies to encourage mortgage credit expansion. Although many countries have active housing public institutions and do give tax incentives to mortgage borrowers, their government-backed securitization was relatively confined due to the low stage of development of this market.

Third, the regulatory and supervisory frameworks in many non-crisis countries appear, in certain ways, to be stricter than that of developed countries. It is in this area where most Latin American countries have taken important steps in strengthening their financial systems. In particular, bank capital and liquidity standards, including those related to foreign currency positions, have been raised, supervision has improved, and risk controls have been tightened.

Additionally, during the previous decade, most Latin American countries had adopted a flexible-exchange rate regime and developed their domestic debt markets. These measures, together with the regulations on banks' foreign currency positions, led to a reduction of foreign-currency mismatches that contributed to the macroeconomic resilience during the global financial shock.[5]

## Lessons from the Mexican experience

Like other Latin American countries, Mexico did not experience a banking collapse during the recent financial turmoil. The domestic recession made delinquency rates rise, especially of consumer lending, which had expanded significantly during the preceding years, mainly due to laxer origination standards. The rest of the loan portfolio revealed a smaller deterioration and, in particular, the quality of the mortgage portfolio declined slightly.

During the economic slump, the banking system maintained strong solvency and profitability indicators. This performance resulted from generally prudent banking practices, which were shaped by lessons from the Mexican crisis of the mid 1990s.

That catastrophe underlined the need for sound macroeconomic policies. The reforms that were implemented in the aftermath of the crisis included the adoption of a flexible exchange-rate regime, the strengthening of the fiscal position, extending the domestic-debt yield curve to 30 years, and the implementation of independent monetary policy committed to price stability.

[5] See Caruana, Jaime, "Financial Globalization, the Crisis and Latin America" speech at the XLVI Meeting of Central Bank Governors of the American Continent and LXXXVII Meeting of Central Bank Governors of Latin America and Spain, 14 May 2009.

These policies provided the banking system and the economy with a stable environment in which to operate.

The crisis of the mid 1990s also evidenced that the regulation and supervision of banks were inadequate. The capital of the banks had been depleted as a consequence of risk mismanagement. To overcome structural limitations, Mexico implemented profound measures to enhance the capital and liquidity of banks and to improve their appraisal of risks. Some of these actions have made Mexican regulations tougher than that of other countries.[6]

One important measure was the removal of all restrictions on foreign investment in banks, something which helped to capitalize and modernize the financial system. Foreign banks in Mexico have promoted efficiency through competition and transfer of expertise. Since foreign banks can only operate through subsidiaries, not branches, they are subject to the same regulation and supervision as domestic banks.

A significant regulatory improvement was the definition of banks' capital composition. Among other requirements, investments in financial institutions must be fully deducted from core capital; deferred taxes cannot exceed 10% of core capital; and in order to be computed as part of core capital, subordinated debt must be allowed to absorb loses. At the beginning of the recent global

[6] See Porzecanski, Arturo C., "Latin America: the Missing Financial Crisis," *Studies and Perspectives Series,* ECLAC, United Nations, October 2009.

crisis, the capital adequacy ratio of the Mexican banking system was 16%, twice as high as that recommended under the Basel Accords.

Additionally, Mexico's central bank issued prudential regulations for banks' foreign currency operations. These intermediaries are required to maintain liquid foreign currency assets on a daily basis sufficient to face short-term foreign currency liabilities. Banks' medium-term liabilities denominated in foreign exchange cannot exceed 1.83 times their capital. Their net position in a foreign currency cannot surpass 15% of their core capital.

To improve risk management, the Bank of Mexico and the National Banking and Securities Commission established requirements for banks that undertake derivatives operations, which included the compulsory creation of risk management units and upper bounds on the types of structured notes that can be issued. Financial and credit derivatives were adopted gradually by the banking system, under control and supervision.

The painful experience of the crisis of the 1990s seems to have also made banks and the public more risk-averse in granting and taking on credit. Intermediaries strengthened their own screening of customers, risk evaluation procedures, and product characteristics in order to develop resilience to possible stress situations, such as spikes in interest rates and unemployment. This was particularly the case in the design of mortgage products, which in Mexico, do not allow for negative amortization. In addition, most mortgage products are based on fixed nominal interest rates and monthly payments.

Finally, although the Mexican banking system was in a strong position to face the international crisis, additional strengthening of the regulatory and supervisory framework is required in order to reduce the likelihood of a domestic systemic crisis. This includes the improvement of capital, liquidity and provisioning requirements, as well as expedient resolution mechanisms for insolvent banks.

## Concluding Remarks

The global financial crisis unveiled a combination of causal factors, including low interest rates, excessive credit promotion policies, and inadequate financial regulation and supervision in advanced economies. In contrast, many emerging economies had already learned significant lessons from previous crises. The implementation of sound macroeconomic policies, the aversion of households to excessive debt, banks' more prudent approach to lending and stricter financial regulations prevented the emergence of problems.

In Mexico, major macroeconomic and financial reforms have certainly paid off. The deepening of this process, especially in macro prudential supervision and the strengthening of the regulatory and supervisory framework for financial institutions, promises to be a challenging and rewarding endeavor.