FINANCIAL STABILITY BOARD

Country Review of Mexico

Peer Review Report

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Foreword

The peer review of Mexico is the first country peer review under the new FSB *Framework for Strengthening Adherence to International Standards*.[1]

FSB member jurisdictions have committed to undergo periodic peer reviews focused on the implementation of financial sector standards and policies agreed within the FSB, as well as their effectiveness in achieving the desired outcomes. As part of this commitment, Mexico volunteered to undertake a country peer review in 2010.

FSB country peer reviews are intended to complement and support the IMF-World Bank Financial Sector Assessment Program (FSAP) by providing an opportunity for members to engage in dialogue with their FSB peers and share experiences on progress made in addressing relevant FSAP recommendations – notably those covering or requiring improvements in regulation, supervision and institutional and market infrastructure.

This report presents the findings and conclusions of the peer review, including the key elements of the discussion in the FSB Standing Committee on Standards Implementation on 15 June 2010. It was prepared by a team comprising members from Australia, Brazil, Korea, Spain, United States, the International Organization of Securities Commissions, and the Organisation for Economic Co-operation and Development, supported by the FSB Secretariat.

The peer review of Mexico examines the steps that have been taken or are planned by the Mexican authorities in response to the recommendations of the FSAP conducted in 2006 in the regulatory and supervisory areas.[2] It focuses on lessons learned by Mexico that could be of benefit to its FSB peers, as well as lessons from peers that could support Mexico's efforts in strengthening further its regulatory and supervisory framework. The review also examines some of the regulatory and supervisory lessons that have emerged from the recent financial crisis, and how these influence Mexico's financial sector policy agenda. It describes the status of implementation of the various FSAP recommendations, and reports on the dialogue among peers that is at the core of the FSB peer review process.

The findings of this review are based on the responses to a questionnaire designed to gather information about the Mexican initiatives undertaken in response to the relevant 2006 FSAP recommendations. The review has benefited from extensive dialogue and close engagement with the Mexican financial authorities during the drafting of the report, as well as the peer review discussion conducted by the FSB Standing Committee on Standards Implementation.

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[1] A note describing the framework is at http://www.financialstabilityboard.org/publications/r_100109a.pdf.

[2] The FSAP report for Mexico is available at http://www.imf.org/external/pubs/ft/scr/2006/cr06350.pdf.

Glossary

AMIB	Mexican Association of Stock Exchange Intermediaries
BCBS	Basel Committee on Banking Supervision
BCP	Basel Core Principle
CCP	Central counterparty clearing house
CCV	*Contraparte Central de Valores*, a clearing house for Mexican equities
CNBV	National Banking and Securities Commission
CNSF	National Insurance and Sureties Commission
CONSAR	Pension Fund Commission
CPSIPS	Core Principles for Systemically Important Payment Systems
CPSS	Committee on Payment and Settlement Systems
DALÍ	*Sistema de Depósito, Administración y Liquidación de Valores*, a securities settlement system
FOVISSSTE	*Fondo de la Vivienda del ISSSTE*, Housing Fund of the Social Security Institute of Public Sector Workers
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
IADI	International Association of Deposit Insurers
IMCP	Mexican Institute of Public Accountants
IMF	International Monetary Fund
INDEVAL	*Instituto para el Depósito de Valores*, a central securities depository
INFONAVIT	*Instituto del Fondo Nacional para la Vivienda de los Trabajadores*, Institute of the Workers National Housing Fund
IOSCO	International Organization of Securities Commissions
IPAB	*Instituto para la Protección al Ahorro Bancario*, a deposit insurance agency
LGD	Loss given default
MOU	Memorandum of Understanding
MXN	Mexican pesos
OTC	Over-the-counter
PD	Probability of default
P&A	Purchase (of assets) and assumption (of deposit liabilities)
SHCP	Secretariat of Finance and Public Credit (Finance Ministry)
SHF	*Sociedad Hipotecaria Federal*, a state-owned development bank
SIAC	*Sistema de Atención a Cuentahabientes,* a payment system
SIDV	*Sistema Interactivo para el Depósito de Valores*, a securities settlement system
Sofoles	*Sociedades Financieras de Objeto Limitado*, special-purpose nonbank financial institutions
Sofomes	*Sociedades Financieras de Objeto Múltiple*, multi-purpose nonbank financial institutions
SPEI	*Sistema de Pagos Electrónicos Interbancarios*, a large-value payment system
SRO	Self-regulatory organisation
UDI	*Unidades de inversión*, inflation-indexed investment units
US$	U.S. dollar

Executive summary

Mexico has made impressive progress in recent years in upgrading its financial regulatory and supervisory framework to bring it further in line with international standards and good practices. The authorities have taken strong actions in response to the recommendations of the 2006 FSAP in all of the areas covered in this report. The ability to monitor and respond to the build up of risks has been strengthened; safety net and crisis management arrangements have improved; the institutional set-up for financial regulation and supervision has been revamped and is being reoriented towards a more system-wide focus; and several steps have been taken to deepen securities markets and further develop private mortgage markets.

Partly due to this enhanced regulatory framework and partly due to the strength of the financial system coming into the crisis, Mexico weathered the recent global financial crisis relatively well. The financial system did experience a material worsening in asset quality and some pressures on bank funding and market liquidity, but these pressures were overall manageable with comparatively modest public support.

In some areas, the crisis has affected the focus and timing of the authorities' responses to the FSAP recommendations. It also led to a broad rethinking of some of the key ingredients of financial regulation and has resulted in new approaches to address the challenges brought to light by the crisis. These included, notably, the need to adopt a system-wide, macroprudential approach to financial regulation and supervision; further calibration of the strategy to develop housing finance, including steps to support the development of securitisation on a sound basis and the role of state banks in the sector; and the continued challenge of deepening financial markets, which has put renewed emphasis on building investor and consumer confidence, further developing the credit infrastructure, and expanding the scope of supervision. Many of these are currently being considered in other countries – within their own specificities – and international fora.

Going forward, a number of issues highlighted by the 2006 FSAP deserve further consideration by the authorities. These include in particular: (i) enhancing the credibility and financial capacity of the deposit insurance agency, including by dealing with the "legacy" debt associated with the Tequila Crisis; (ii) further strengthening the supervisory structure and powers; and (iii) developing a strategy for the exit of development banks from the mortgage market, so as to encourage the development of private markets.

This report canvasses several issues where the experience of Mexico is relevant to the regulatory and supervisory challenges that other FSB members are facing. It also identifies issues where Mexico can benefit from the experience of its FSB peers, and where members of the Standing Committee on Standards Implementation shared lessons and discussed experiences that are relevant for the case of Mexico.

Discussions in the Standing Committee focused on the following issues:

- The link between the structure of foreign bank operations and financial stability, which is particularly relevant to Mexico given the large share of foreign ownership in the banking system. Here, discussions highlighted the expertise and capacity that foreign banks can bring to the host country, but also the higher risk of spillovers in the event of problems at group level. Overall, while Mexican authorities indicated that the crisis experience does not suggest a need for greater ownership diversification in their domestic financial system, they did highlight the potential for contagion and the need for appropriate controls and oversight of foreign banks, including via home-host supervisory collaboration and the establishment of supervisory colleges. With respect to legal structure, the authorities noted that their subsidiary regime proved effective in preventing contagion to the broader financial system even in the face of isolated problems at foreign parent level. The choice between branching and subsidiarisation is complex because, while subsidiaries can limit spillovers, branches can use capital and liquidity more efficiently and so support stability at group level. Given this complexity, national authorities should be able to choose from a variety of different approaches.

- Criteria, timing and modality of exit from exceptional deposit insurance arrangements introduced during the crisis. While Mexico did not increase the amount covered or expand the type of deposit instruments covered during the crisis, the experience of other FSB members in this area will be relevant for the Mexican authorities in determining the appropriate coverage level of deposit insurance following the crisis. In this respect, Committee members noted that the recent crisis has led to a general rethinking of the attributes of effective deposit insurance, with more emphasis placed on maintaining financial stability and less on minimising moral hazard. This has led in some countries to increases in coverage on a permanent basis. In terms of process, it was noted that regional coordination can be important in determining the coverage level and the modality and timing of any changes.
- Enhancing risk monitoring and adopting a system-wide, macroprudential approach to financial oversight. Discussions in this area emphasised the need for systemic oversight arrangements to encompass all authorities that share responsibility for maintaining financial stability and all relevant financial institutions (including nonbank ones) and markets; and to develop macroprudential tools, building on the work undertaken in a number of fora including the Basel Committee. The recent establishment of an inter-agency Financial System Stability Council in Mexico that would monitor and assess system-wide risks was welcomed. Members noted that, to be most effective, the Council would need a clear mandate, high levels of coordination among its member agencies, an infrastructure to gather and share data, as well as macroprudential tools. They encouraged stronger coordination between the central bank and the prudential regulator on the design of stress tests.
- Taking steps to further deepen financial markets. Committee members highlighted in particular the crucial roles of: (i) promoting financial education including via targeted school programs, which is a challenge for Mexico; (ii) increasing transparency by means of simplified disclosures that facilitate consumers' and investors' understanding and their ability to compare financial products; (iii) cracking down on illegal activity, including via the "whistle-blower" system being established in Mexico, through which regulated firms' employees and the broader public can make complaints to regulators; and (iv) promoting the development of institutional investors as part of a vibrant, sophisticated investor base that would, in turn, lead to deeper securities markets.

1. Regulatory issues arising from the crisis

The evolution of the Mexican regulatory framework since the 2006 FSAP and the authorities' response to its recommendations need to be considered in the context of recent events, notably the global financial crisis that began in 2007. In many countries the crisis highlighted weaknesses and led to a broader re-think of financial regulation, both domestically and internationally. These factors have also influenced the intensity and direction of the Mexican reform efforts.

The Mexican financial system weathered the spillovers from the financial crisis relatively well, reflecting improvements in bank risk management and prudential oversight since the mid-1990s, and the strong profitability, reserve and capital buffers of banks coming into the crisis (see Figure 1). While the system was not immune from problems relating to complex structured financial products, losses were limited partly as a result of low investment in such products due to risk aversion from market participants and a lesser degree of sophistication from local investors. The system was also primarily funded by local deposits, with limited reliance on wholesale and external funding that proved problematic elsewhere.

As a result, official support to the financial system was comparatively modest and consisted mostly of liquidity provision, encompassing a variety of measures.[3] Reportedly, only a small number of banks experienced temporary liquidity pressures and an increase in interbank funding costs. Deposit insurance coverage, already at high levels, did not require further expansion as seen in many advanced and emerging countries during the crisis (see chapter 3).

At the same time, the financial system did experience a material worsening in asset quality, a consequence of the consumer credit growth and deterioration in underwriting standards prior to the crisis, which were aggravated by crisis-induced pressures. Mexico's high real-side integration with the United States contributed to a sharp recession in 2009 (-6.5% GDP growth), a reduction in cross-border capital flows, a terms of trade shock, substantial currency depreciation (-20% in 4Q 2008), and credit weaknesses at some of Mexico's larger corporates. The nonperforming loan ratio increased from 2.0% at end-2006 to 2.8% at end-March 2010, although the actual deterioration was more pronounced as signalled by a high level of charge-offs (including charge-offs, problem loan ratios increased from 3.9% to 8.4% over the same period), much of which was centred on the consumer portfolio (delinquency ratios adjusted for charge-offs reached 25% in November 2009). These pressures were manageable in light of the buffers noted above, but contributed to diminished profitability and weak credit growth in Mexico over the crisis period.

At the macroeconomic level, Mexican authorities engaged in countercyclical monetary and fiscal measures, enabled by improved credibility deriving from strengthened macroeconomic fundamentals and policymaking since the 1995 Tequila Crisis. Mexico also participated in international financial safety nets, such as the US$ 30 billion swap line with the U.S. Federal Reserve System and a US$ 47 billion Flexible Credit Line with the International Monetary Fund (IMF), which was recently renewed. Together, these measures helped to bolster systemic

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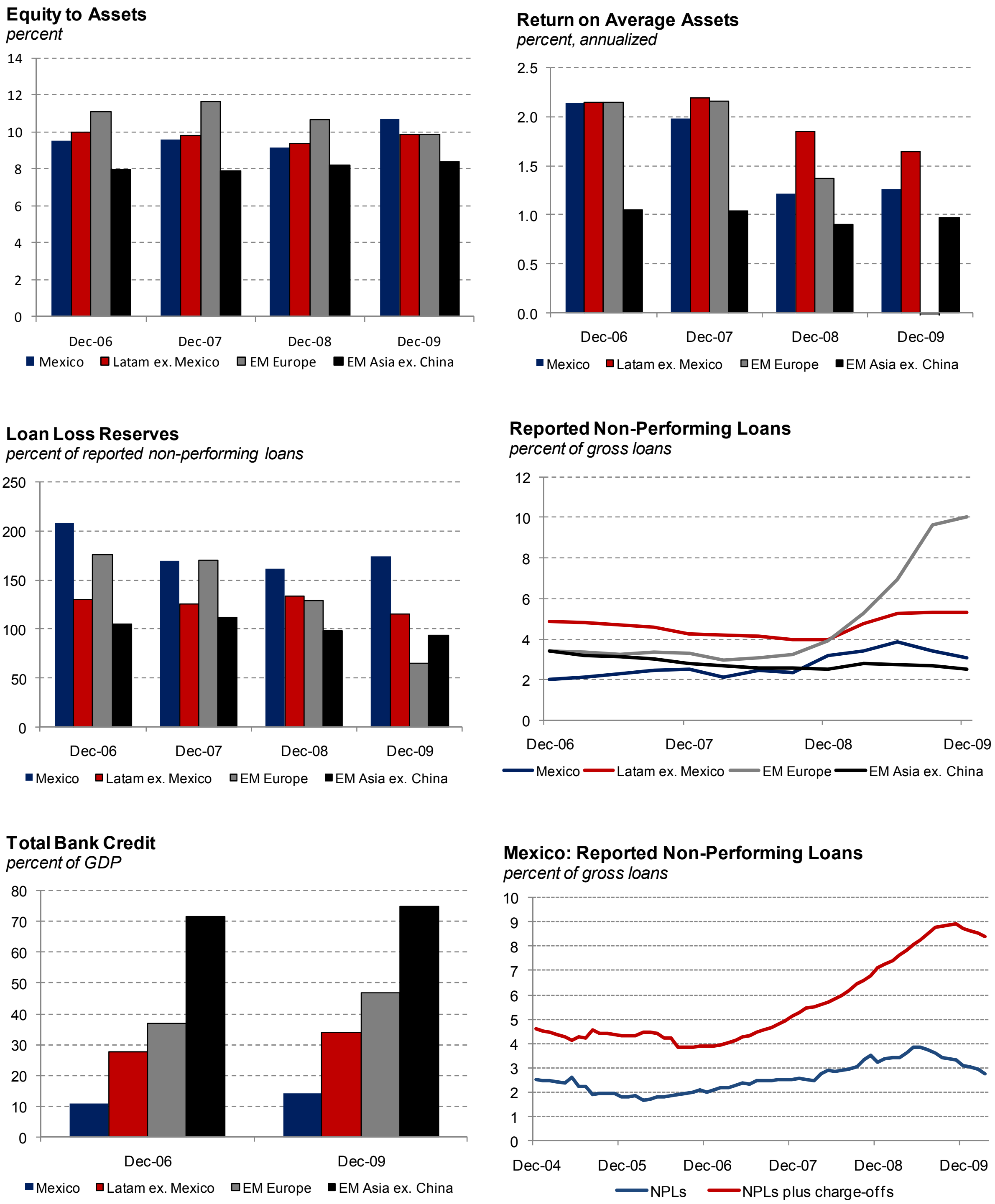
[3] This included support for the refinancing of maturing nonbank liabilities; enhancements to eligible discount window collateral; purchases of longer-term debt by the Bank of Mexico; swapping of short-term debt for medium- and long-term government debt; and the lower placement of medium- and long-term government debt.

resilience and confidence. In light of the shocks experienced during the crisis, and their view that countries with higher foreign exchange reserve buffers were more resilient, Mexican authorities have indicated that they intend to further build official reserves.

Figure 1: Mexican Banking System Performance – Cross-Country Comparison (2006-09)



Sources: Bank of Mexico, CNBV, national central banks and supervisory agencies.

The sharp depreciation of the peso in the fourth quarter of 2008 triggered material losses for Mexican corporates that had entered into derivatives transactions premised on pre-crisis conditions of low volatility and the steady appreciation of the local currency against the dollar. These losses contributed to market volatility leading to significant currency market intervention by the Bank of Mexico. They also adversely affected the commercial paper market, prompting the authorities to provide liquidity support and guarantees through development banks in order to restore confidence and maintain the smooth functioning of that market. The extent of the underlying exposures came as a surprise to the market and regulators, and has led to National Banking and Securities Commission (CNBV) investigations of potentially unlawful marketing and selling practices by financial intermediaries, higher disclosure requirements for exposures associated with derivative instruments by publicly listed companies, as well as ongoing work on improving sales practices and strengthening surveillance mechanisms. These measures will be reinforced by the implementation of International Financial Reporting Standards for issuers beginning in 2012.

As in other countries, the crisis experience has underscored the need for a more systemic perspective, and Mexican authorities are adopting a more macroprudential approach in part through the implementation of an inter-agency coordination mechanism. Specifically, the authorities have recently established an inter-agency Financial System Stability Council to monitor, assess, and address potential systemic risks within the financial system (see chapter 4).

The growth in the nonbank financial sector over time (sofoles and sofomes in particular, comprising about 3% of system assets)[4], coupled with relatively greater deterioration in loan portfolios and liquidity at these institutions, have raised questions about whether and to what extent they should be subject to greater prudential oversight. In this regard, the authorities are seeking to better define systemically important financial institutions, and are moving forward with a plan to expand the regulatory perimeter to include large sofomes (see also chapter 4).

At 73%, the large share of foreign bank ownership of system assets, combined with weaknesses in some parent banks, led to certain challenges and corresponding official responses during the crisis. Mexican authorities deepened their interactions with parent institutions and their supervisors – in the context of wider participation by Mexico in key international fora more generally – and current international cooperation arrangements are viewed as good. In light of increased flows of liquidity from some domestic bank subsidiaries to their foreign parents during the crisis, the CNBV is working on measures to gradually bring group exposure limits down from 50% of a commercial bank's Tier 1 capital to 25% by 2014.[5] Weaknesses at the parent level are thought to have contributed at the margin to diminished local credit growth, although domestic banks also reduced lending as a result of the deterioration in local credit and liquidity conditions. The ownership stake taken by the U.S. and some European governments in several institutions in their respective jurisdictions during the crisis created potential conflicts with article 13 of the Mexican banking law, which restricts foreign government ownership of Mexican banks. While the Finance Ministry found there was no such conflict, the case has gone to the Mexican Supreme Court.

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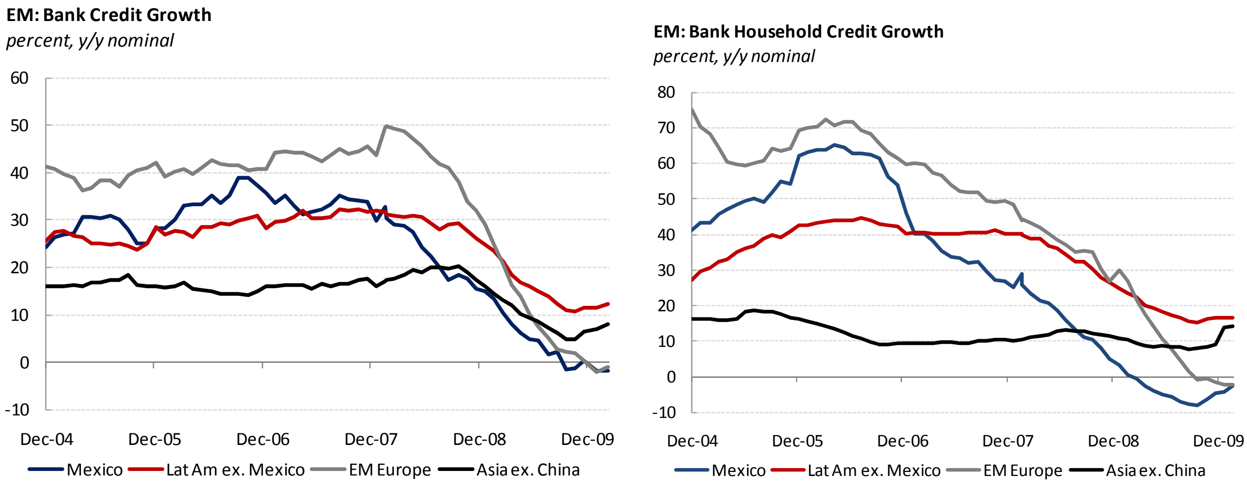
[4] Sofoles are special-purpose nonbank financial institutions, some of which specialise in mortgage financing; sofomes are nonbank financial institutions that can engage in multiple lines of business. See also chapter 7.

[5] Group exposures above that limit will be deducted directly from Tier 1 capital. This limit will apply to both local subsidiaries of foreign banks and domestic private banks that form part of larger corporate groups.

The reduction in cross-border flows, combined with defensive behaviour by some foreign and domestic private banks operating in Mexico, contributed to a reduction in credit during the crisis, particularly for commercial loans (see Figure 2). Nonbank financial institutions that were highly dependent on market financing also had difficulty rolling over their maturing obligations. Development bank loans and guarantees helped address market dislocations and support credit flows, particularly to small- and medium-sized enterprises and in the housing arena, leading to an increase of around 40% in development bank lending from 2008 Q3 to 2009 Q3.[6] Similar increases in state bank lending have been witnessed in other emerging market countries during the period, but development banks are comparatively smaller in Mexico, leading to a smaller financial impulse. However, some domestic commercial banks also increased lending, thereby performing a similar (albeit temporary) role as development banks in sustaining credit. A number of programs that were initiated during the crisis were targeted in nature and have been subsequently wound down.

Recent experience, particularly with unsecured consumer loan growth, underscores the challenges of increased credit deepening in Mexico, which remains very low by international standards and in relation to per capita income. The authorities are generally optimistic about medium-term credit growth prospects given the system's soundness and the impact of reforms, recognising however that credit deepening will take time. International proposals to raise bank prudential standards were not generally perceived as unduly constraining future credit growth given high existing buffers, although higher requirements on systemically important institutions at the parent level and the new liquidity standards proposed by the Basel Committee on Banking Supervision (BCBS) were viewed as a potential concern by the authorities depending on the scope of their implementation.

Figure 2: Mexican Bank Credit Growth – Cross-Country Comparison (2004-09)



Sources: Bank of Mexico, CNBV, national central banks and supervisory agencies.

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[6] Nacional Financiera and Ex-Im Bank provided guarantees to support the refinancing of debt issued by corporate firms and nonbank intermediaries. This program concluded on October 2009, providing guarantees of MXN 29.1 billion to thirteen companies. In addition, the housing development bank *Sociedad Hipotecaria Federal* (SHF) implemented a program to facilitate the refinancing of short-term maturing liabilities by mortgage-granting nonbank institutions, which provided guarantees of MXN 6.8 billion.

Lessons and issues going forward

The Mexican financial system has shown resilience in the face of the recent financial crisis – a result of efforts to strengthen the regulatory and supervisory framework since the mid-1990s and in response to the lessons from the Tequila Crisis. As in other countries, the crisis has led to a broad rethinking of the necessary elements of, and approach to, financial regulation. In some areas, this has had a bearing on the authorities' responses to the FSAP recommendations, which is discussed in later chapters. This includes notably the following:

- the need to adopt a system-wide, macroprudential approach to financial regulation and supervision, leading to the establishment of an inter-agency coordination committee and to steps to expand the perimeter of regulation (see chapter 4);
- further calibration by the authorities of their strategy to develop housing finance in the face of crisis-induced liquidity pressures, including steps to support the development of securitisation on a sound basis and the role of state banks in the sector (see chapter 7); and
- the continued challenge posed by financial deepening in Mexico, which has put renewed emphasis on building investor and consumer confidence (chapter 6), further developing the credit infrastructure (chapter 7), and expanding the scope of supervision (chapter 4).

The large share of foreign ownership in the Mexican banking system raises the issue of the oversight and legal structure of the local operations of foreign banks. Foreign ownership can bring expertise and capacity and can help support regulatory reform, but can also heighten the risk of spillovers in the event of problems at group level. Sufficient diversification in terms of the country of origin of foreign banks can shield the domestic system as a whole from potential problems in any individual country. Overall, Mexican authorities indicated that their experience does not suggest a need for greater ownership diversification in their domestic financial system. Even if relatively small in size, domestic institutions assume an important role in encouraging a vibrant, dynamic and competitive financial sector. It is ultimately the business model, not nationality, which is the key determinant of different banks' risk-taking behaviour. Moreover, market contestability is more important than ownership diversification for efficient intermediation.

The crisis did underscore the potential for contagion and the need for appropriate controls and oversight of foreign banks. In this respect, it is of crucial importance that collaboration between host and home supervisors be effective – working together, developing trust, and exchanging information. The establishment of supervisory colleges, in which Mexico participates, for the largest foreign-owned financial institutions, has helped to reinforce this collaboration and this is expected to improve further.

With respect to legal structure, Mexican authorities noted that their subsidiary regime proved effective in preventing contagion to the broader financial system even in the face of problems at the level of the parent. The relationship between parent and subsidiary was reflected in isolated cases of contagion to the subsidiary from centrally based decisions to constrain credit and increase the flow of resources to the parent, but this was manageable overall, particularly as a result of the diversification of nationality of foreign bank parents. This type of contagion is not dissimilar from what might occur between financial subsidiaries and nonfinancial parent in mixed financial/nonfinancial groups, and it also needs to be monitored closely.

The choice between branching and subsidiarisation is complex and there is no simple trade-off. Subsidiaries can reduce the impact of spillovers but branches can use capital and liquidity more efficiently to support stability at group level. The debate has attracted different views internationally depending on the home- or host-country perspective. From a home-country perspective, bank structures in which foreign operations are through subsidiaries might facilitate orderly resolution. The host-country perspective is likely to be situation-specific and vary by bank and by jurisdiction, and may be affected by such issues as depositor protection and the effectiveness of information exchange between home and host supervisors. As a general rule, subsidiarisation seems more relevant for retail and commercial banking (with a view to protecting depositors) than for wholesale banking. Given this complexity, national authorities should be able to choose from a variety of different approaches.

2. Risk monitoring and contingency planning

A theme raised by the 2006 FSAP was the need to further strengthen the authorities' ability to monitor the build-up of risks in the banking system, notably credit risk associated with consumer and mortgage lending, as well as liquidity and contagion risks. While household debt remained a relatively low share of commercial banks' assets and household indebtedness as a proportion of disposable income was moderate, high rates of growth in consumer and mortgage lending could, without proper monitoring, raise stability concerns. These concerns were confirmed in the build-up to the recent crisis, as consumer credit grew substantially and underwriting standards deteriorated (see chapter 1). With regards to the monitoring of liquidity risk, the FSAP recommended improving stress testing methodologies, including by incorporating contagion risk through the interbank market. More broadly, the FSAP recommended enhanced stress testing procedures through better coordination across relevant agencies in the design of stress scenarios, notably Bank of Mexico and CNBV.

Finally, the FSAP made recommendations in the area of business continuity planning in the event of an emergency. In particular, it suggested that plans be developed to assure business continuity for all critical processes regarding Bank of Mexico, the payment systems, and all financial institutions.

Steps taken and actions planned

The consumer lending upsurge prior to the crisis led CNBV to considerably strengthen its monitoring of credit risks associated with consumer and mortgage lending. Assessments of the credit card and mortgage portfolios were conducted by the authorities in 2007 and 2008 respectively, and they concluded that, while mortgage risk was relatively low, banks needed higher provisioning for their credit card portfolios,. As a result, CNBV shifted credit card provisioning regulations to an expected-loss rather than incurred-loss approach, which doubled associated provisioning requirements. A similar approach for mortgage lending and non-revolving consumer credit will enter into force in January 2011. Notably, mortgage provisioning requirements will be higher in states with less effective foreclosure processes, which may create incentives to strengthen the foreclosure process in those states.[7]

With respect to liquidity risk monitoring, Bank of Mexico has developed tools over the last five years to monitor banks' gaps and liquidity ratios for various time buckets under normal and stressed scenarios. These tools make use of statistical analysis to determine the behavioural maturities of assets and liabilities, and are used in conjunction with other indicators to monitor liquidity conditions and to identify weaknesses or threats in individual banks. Bank of Mexico has also been developing information systems to measure the risk of interbank contagion. This framework was recently extended to track linkages between Mexican banks and foreign financial intermediaries. During the recent crisis, the liquidity monitoring process proved capable of detecting signs of deterioration in the liquidity position of some institutions and facilitated early interactions between Bank of Mexico and those institutions on steps to relieve funding pressures (see below).

Additional work is under way to further improve the monitoring of liquidity and contagion risks, including: (i) the development of liquidity measures in line with the Basel Committee liquidity proposals; (ii) the insertion of market risk effects in the estimated liquidity need metric; (iii) the assessment of failure of non-financial corporations and nonbank financial intermediaries in the contagion analysis; and (iv) the development of a model to jointly consider macro stress tests and contagion analysis.

Both Bank of Mexico and CNBV have further developed their stress testing capabilities. They exchange stress test results regularly as well as views and concerns on financial system developments as a whole and on individual institutions. Bank of Mexico is currently conducting macro stress tests of banks using a recently developed macro model, while CNBV launched in July 2009 a stress testing exercise covering the period through December 2011 with a view to detecting potential capital inadequacies. Despite increased communications between Bank of Mexico and CNBV on their stress testing results, the design of stress tests is still made independently by each of them.

With respect to contingency planning and emergency liquidity assistance, Bank of Mexico has developed guidelines and internal protocols on the provision of emergency liquidity. It also introduced a new standing facility in October 2008 with expanded collateral eligibility, which alleviated market funding pressures. Emergency liquidity assistance procedures have been incorporated into Bank of Mexico's strategic (and continuity) planning.

Bank of Mexico monitors institutions on an ongoing basis to detect potential liquidity problems in advance of the time when liquidity support might be needed[8], but has also been preparing for situations in which support is needed at short notice (e.g., during a business day or at closing hours of operations of high-value payment systems). For this purpose, Bank of Mexico has been working on standardised contracts that could be used in such a situation. Development of these contracts is almost completed. While some details still have to be

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7 In Mexico, legislation relating to foreclosure is set at the state level by the legislature of that state.

8 In addition to providing liquidity directly to institutions, authorities can also intervene using various instruments to deal with liquidity problems in specific markets, as was the case for the foreign exchange market and for some segments of debt markets during the crisis.

worked out depending on the specific institution and circumstances under which emergency liquidity is required, having standardised contracts will speed up the process.[9]

Additionally, and with support from the World Bank, the Finance Ministry, Bank of Mexico, CNBV, and the deposit insurance agency (IPAB), have worked to develop capabilities for financial crisis simulations. Simulation exercises are at an advanced stage and the latest one, involving middle-level officials, was conducted in March.

With respect to business continuity plans, Bank of Mexico has identified all its critical processes and systems and has developed contingency plans based on extreme scenarios including: lack of access to the primary site; pandemics; software failure on the operator's workstations due to malicious software; hardware failure on the primary servers; and major interruption on the information technology applications used by operators. Bank of Mexico has also developed continuity plans for its own payment systems, SIAC and SPEI, and the securities depository INDEVAL has done the same for the other systemically important payment system, DALÍ.

As regards continuity plans in financial institutions, CNBV has issued regulations that require banks to implement such plans for all their critical processes. Bank of Mexico has been following closely the evolution and implementation by market participants, and plans to extend its evaluation of continuity plans to all participants in the payment systems, as well as to enhance DALÍ's continuity plan by strengthening its alternative (operating and information technology) sites.

Lessons and issues going forward

The recent crisis has confirmed the need for both firms and supervisors to enhance their ability to monitor credit and liquidity risks, and significant policy development has been underway at the international level. The Mexican authorities have reinforced or accelerated their efforts in this area. Liquidity monitoring systems appear to have performed well and credit monitoring was stepped up during the crisis.

The Mexican experience with implementing expected-loss provisioning is particularly relevant to ongoing debates at the international level as well as in other FSB members. The move from an incurred loss to an expected loss approach is expected to contribute to better underwriting standards by Mexican financial institutions and more sustainable credit growth going forward. Such an approach has been advocated by the Basel Committee and the FSB, on the grounds that earlier recognition of loan losses could have dampened cyclical moves in the recent crisis, and that earlier identification of credit losses is consistent both with financial statement users' needs for transparency regarding changes in credit trends and with the prudential objectives of safety and soundness. Work is currently underway by the International Accounting Standards Board on an expected loan loss provisioning approach for financial assets.

One challenge in implementing such an approach is to obtain through-the-cycle estimates of the probability of default (PD) and loss given default (LGD) across asset classes, and to avoid

[9] The plan includes standardised contracts for each type of collateral, since the type of collateral will affect how the support is implemented.

the compression of estimates during benign credit conditions (and the opposite during a downturn). This can be difficult for countries where the credit infrastructure is relatively recent and consumer and mortgage loans' loss history data are limited, as the 2006 FSAP noted was the case with Mexico. The Basel Committee is analysing a number of proposals aimed at providing non-cyclical PD estimates, and Mexico intends to follow closely policy developments in this and other relevant fora.

It will be important going forward for the authorities to further enhance risk monitoring, including coordination between Bank of Mexico and CNBV in the design of stress test scenarios, as noted in the FSAP. This issue is being taken up as part of efforts to implement a macroprudential approach to supervision based on enhanced coordination across the relevant financial agencies (see chapter 4).

3. Safety net arrangements

Following the Tequila Crisis, the Mexican authorities embarked on a gradual and comprehensive reform of their safety net arrangements. Deposit insurance was transformed from an implicit blanket guarantee to an explicit scheme with limited coverage. The scheme, administered by IPAB, is financed by flat premiums levied annually on member banks. Moreover, bank resolution arrangements were strengthened to incorporate a range of flexible options for closed-bank resolution – insured deposit transfers, purchase and assumption (P&A) transactions and bridge banks – subject to a least-cost criterion.[10] The 2006 reforms represented a major improvement on the earlier framework, which was heavily biased towards open-bank resolution and was inadequate to resolve unviable banks.[11] The new framework also retained the option of open-bank resolution for banks considered to be "too-big-to-close" by a committee comprising high-level representatives from the relevant authorities.

The FSAP praised the significant progress made by the Mexican authorities. At the same time, it identified three areas where further progress could be made:

- Authorities were encouraged to consider market-discipline-supporting measures for deposit insurance, such as a reduction in coverage and the charging of risk-based premiums. By 2006, the coverage limit measured in US$-equivalent was among the highest in the world. Lowering the coverage limit would provide incentives for depositors to better monitor banks. In addition, linking premiums to estimated risks (that is, expected loss) would encourage insured banks to manage risks prudently, while generating revenues for the deposit insurance fund commensurate with the risks incurred in its ongoing operations.
- The FSAP recommended that an effective framework for the liquidation of banks be established, and that partial deposit transfers be enabled under P&A transactions.

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[10] There is no single best technique for the resolution of weak banks. Indeed, cross-country experience suggests that having a wide range of available policy options is important to tailor the policy response and to limit the overall costs of resolution for taxpayers and the economy at large.

[11] For example, in the resolution of the Mexican crisis of the mid-1990s, bank liquidation was not deemed to be a viable option owing to cumbersome and unclear legal procedures for bankruptcy.

- The authorities were encouraged to improve the financial condition of IPAB, including through transfer of its debt to the federal government. IPAB was still saddled with the debt associated with bank bailouts during the 1995 crisis (8% of GDP at the time of the FSAP), which could weaken IPAB's credibility.

Steps taken and actions planned

In the context of the recent financial crisis, the Mexican authorities have left the deposit insurance parameters unchanged. Lowering coverage was not deemed appropriate at a time when many governments were raising limits in response to the crisis.[12] As for risk-based premiums, legislation authorises IPAB to charge premiums based on each bank's risk exposures. IPAB has been working on the feasibility of an assessment model that includes risk-based variables related to bank capital levels and emergency buffers as well as a liquidity indicator. Because the legislation currently requires ordinary premiums to be at least 0.4% of total liabilities, the authorities consider additional risk-based premiums to be too burdensome for banks at the current juncture. On the other hand, by assessing premiums against liabilities (including deposits), the Mexican scheme takes into account risks related to institutions that have relatively few deposits but large balance sheets (i.e., with large wholesale funding) and thus may contribute more to systemic risk. The authorities stand ready to implement these deposit insurance-related recommendations when the timing is appropriate.

Efforts to promote a more robust bank resolution framework have taken on additional importance in the wake of the recent crisis. Since the 2006 amendment to the banking law, the legal framework for bank resolution in Mexico was further developed by establishing parameters for analyzing the financial situation of a troubled bank, assessing the context and the expected cost for each resolution method in order to support decision-making, and designing an orderly implementation process that involves all relevant authorities. In addition, the authorities, under the coordination of the Finance Ministry, are preparing an amendment to the banking law that would enhance resolution processes by retaining the resolution methods introduced in 2006 and providing additional powers to conduct P&A transactions, including partial deposit transfers.

Mexico also has in place a prompt corrective action framework that the 2006 FSAP judged to be in line with international good practice. The framework is yet to be put to a real test given the overall limited pressures experienced by the Mexican banking system during the recent crisis, but appears to have worked well in the case of pressures experienced at an individual bank.[13] The framework itself appears to have contributed to realigning incentives, since only on a few occasions have banks come close to the 10% capital adequacy limit that triggers it.

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[12] The Mexican deposit insurance ceiling, unchanged at 400,000 *unidades de inversión* (UDI) since 2005, was equivalent to about US$ 133,000 as of end-2009, fully covering some 99.85% of insured accounts. Due to other countries' actions during the crisis, the Mexican deposit insurance ceiling in (exchange rate-adjusted) nominal terms is now similar to, or lower than, that in other countries. See S. Schich (2008), "Financial Crisis: Deposit Insurance and Related Financial Safety Net Aspects" *Financial Market Trends*, No. 95, OECD, Paris, available at http://www.oecd.org/dataoecd/36/48/41894959.pdf.

[13] This framework was activated in 2005, triggering structured action towards one bank, although the temporary nature of the capital shortfall in that instance did not necessitate any further actions.

IPAB's financial condition has improved somewhat in recent years. The "legacy" debt associated with the Tequila Crisis, which IPAB manages, has declined from a peak of 12.5% to 6% of GDP at present. The law requires IPAB to use three-quarters of annual bank premiums collected to service this legacy debt; the remaining amount, net of administrative and operational expenses, is transferred to a "preventive" Protection Fund, to be used to cover future payouts. While some IPAB obligations are covered by budgetary allocations, a transfer of its debt to the federal government, which would require legal reform, is not currently envisaged. The ex ante funding ratio of the Deposit Insurance Fund for ongoing operations in Mexico is low, equivalent to about 0.1% of liabilities, but the law foresees an additional exceptional funding facility up to 6% of total bank liabilities every three years.[14]

Lessons and issues going forward

Mexico carried out considerable reforms in the past few years to strengthen its safety net arrangements. This experience shows that the legal framework for both deposit insurance and bank resolution can be reformed materially within a limited timeframe to align it with good international practice. The relative stability that Mexico enjoyed during the last decade has contributed to facilitating the reform process.

With respect to IPAB's legacy debt, the feasibility of transferring liabilities to the general budget is a fiscal matter. In this respect, the authorities have noted that important reforms over the last 3 years, including tax reforms, have eased fiscal pressures and allowed a counter-cyclical response to the financial crisis; but that declining oil revenues and rising pension and social spending pressures are likely to pose future fiscal challenges. The authorities should take advantage of available opportunities to transfer IPAB's legacy debt as advocated in the FSAP, in order to enable the build-up of a larger preventive fund. It should be noted, however, that IPAB does have the capacity to obtain resources from the central bank or (through bond issuance) the banking system, which provides reasonable credibility and financial capacity to the deposit insurance system.

More broadly, the experience of Mexico in dealing with its legacy debt is relevant to ongoing debates, both nationally and internationally, on the extent to which financial institutions can bear the costs of financial crises; how such contributions should be raised (including the assessment base and rate); and where the resulting fund should be located. These issues are currently being discussed in other fora (notably, the G20), and the authorities should re-evaluate their approach based on the outcomes of these discussions.

A related area for consideration by the authorities is that of IPAB funding. There is no international consensus on how deposit insurance systems should be funded, whether ex ante or ex post; and if ex ante, at what level of insured deposits. In practice, actual and target funding ratios differ significantly across deposit insurance systems. The financial crisis has highlighted that, even with ex ante funding, accumulated funds may not be sufficient in the

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[14] More specifically, in the event of an emergency situation that could affect a bank's solvency and in which the IPAB has insufficient resources to perform a pay-out of insured deposits or to conduct open bank assistance or capitalization, it will be entitled to seek additional funding of up to 6 percent of the total liabilities of commercial banks. IPAB's funding sources include Bank of Mexico and development banks. As of the end of March, IPAB could obtain up to MXP 258 billion through these funding arrangements.

case of a systemic crisis. In this respect, the law in Mexico foresees an additional exceptional emergency funding facility. The Mexican authorities have also noted that in a context where competition among banks is limited, high deposit insurance premiums can be passed on to customers, which is a factor that should be taken into account.

A key issue for the Mexican authorities will be to determine the level of deposit insurance coverage after the crisis. The IADI-BCBS Core Principles for Effective Deposit Insurance Systems[15] do not provide specific guidance on nominal coverage ceilings, although they suggest ceilings should ensure that "the large majority of depositors" are covered. This is an area where the experience of peers is of relevance once they exit from temporary arrangements that involve higher or unlimited coverage.[16] Additional metrics, such as the deposit guarantee as a percentage of per capita GDP, also need to be taken into account when calibrating the coverage level.

The crisis seems to have tipped the balance in the design of deposit insurance systems internationally more towards the objective of supporting financial stability and less towards the goal of minimising moral hazard. The greater emphasis on stability (i.e. avoiding depositor runs on banks) arises partly from a recognition that it is unrealistic to expect retail depositors to exercise much market discipline and that, if they do, it would occur too late in the process. As a result, a number of countries increased coverage on a permanent basis during the crisis, and some of the countries that introduced temporary full guarantees have since replaced them with permanent increases in coverage levels.[17] There is also more emphasis now on processes and procedures that can ensure the rapid and full payout of insured deposits.

In determining the coverage level of deposit insurance and the timing of any reforms, Mexican authorities could benefit from enhanced coordination with relevant authorities that are exiting from temporary protection. Regional coordination efforts in particular can play an important role, and such coordination is already taking place in a number of regions, notably the European Union and selected countries in Asia and the Middle East.

4. Regulatory effectiveness and systemic oversight

The 2006 FSAP made a number of recommendations to enhance the effectiveness of the regulatory and supervisory framework through strengthened inter-agency coordination and the operational autonomy of supervisory and regulatory agencies.

At the time of the FSAP, procedures for cooperation and information exchange between agencies responsible for financial stability – CNBV, the National Insurance and Sureties

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[15] These principles set benchmarks for countries to use in establishing or reforming deposit insurance systems, and are available at http://www.bis.org/publ/bcbs156.pdf.

[16] For instance, Mexican nominal coverage is currently somewhat higher than in Canada but lower than in the United States (where a new ceiling of US$ 250,000 is currently in place) and in several European jurisdictions, some of which have adopted unlimited coverage.

[17] See *Note by the Staffs of the International Association of Deposit Insurers and the International Monetary Fund on Update on Unwinding Temporary Deposit Insurance Arrangements* (June 2010, available at http://www.financialstabilityboard.org/publications/r_1006.pdf).

Commission (CNSF), the Pension Fund Commission (CONSAR), and Bank of Mexico – including joint inspections of financial institutions, were not formalised and were loosely followed, mostly on an ad hoc basis. Therefore, it was suggested that more effective coordination between the authorities responsible for the soundness of financial markets be achieved through Memoranda of Understanding (MOUs) that set clear responsibilities, accountabilities, and operational rules covering information exchange, supervisory decision-making, and regular meetings.

With respect to supervisory autonomy, CNBV was found to lack the operational independence and powers to fulfil its mandate effectively:

- the Finance Ministry had broad supervisory authority over CNBV operations;[18]
- CNBV governance structure was weak;[19] and
- its supervisory authority was constrained by the regulatory powers held by the Finance Ministry and Bank of Mexico.[20]

The FSAP also noted that the formal consultations or reviews with other government agencies in some parts of CNBV's supervisory functions – for example, the authorisation and formulation of regulations – may delay decision-making and bring about undue outside influence, thereby hampering its independence and effectiveness.

Steps taken and actions planned

With amendments to the banking law in February 2008, most of the regulatory powers held by the Finance Ministry – including the authority to issue and withdraw licences for banks and bank subsidiaries, and to set prudential regulations – were reassigned to CNBV. In addition, CNBV has been granted supervisory decision-making authorities – such as assessing ownership changes in, and investments by, banks – that were also under the Finance Ministry. Accordingly, CNBV now approves and revokes licences to banking organisations, including the subsidiaries of foreign financial institutions it supervises, with the consent of Bank of Mexico. The regulatory realignment also vested CNBV with the power to approve changes in ownership structure, mergers and spin-offs, as well as major acquisitions and investments of banking institutions, in consultation with Bank of Mexico. In terms of prudential regulation, CNBV is responsible for establishing capital adequacy and loan classification standards. These measures greatly enhanced CNBV's status as an

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[18] For example, CNBV did not have adequate budgetary discretion as the Ministry of Finance set and allocated its annual operating budget based on the budget formula prepared by CNBV.

[19] CNBV is led by a 13-member Board of Directors including the President and two Vice Presidents. The other members are ex-officio positions designated by the Finance Ministry (5), Bank of Mexico (3), CONSAR (1), and CNSF (1) without fixed terms. The Chairman of the Board is the Minister of Finance. The President is appointed by the Minister of Finance and can be dismissed at any time without reason. The Vice-Presidents are designated by the CNBV President and approved by the Board; two of them participate in the Board and are designated by the President, approved by the Board, and may be removed at any time by the same Board.

[20] The Finance Ministry set regulatory policy for the financial system and had licensing and revocation authority for banks. Bank of Mexico also had some regulatory responsibilities, especially regarding money, foreign exchange and derivatives markets. CNBV did not have authority to formulate and issue prudential regulations or in significant areas of supervisory decision-making, such as the approval of significant ownership transfer, major acquisitions or investments by banking institutions.

autonomous financial regulator, together with its regulatory powers over the securities markets, which had already been transferred from the Finance Ministry in 2006.

Efforts have also been underway to identify and bring within the perimeter of regulation entities that are systemically important but were previously unregulated or lightly regulated. Specifically, as noted earlier (chapter 1), an amendment to the law is being proposed to expand the regulatory perimeter in order to include sofomes with more than 400 million *unidades de inversión* (inflation-indexed investment units, or UDI) in debt securities issuance, covering approximately 40 institutions. CNBV was also authorised in 2007 to supervise the operations and book-keeping of FOVISSSTE, a large public sector housing mortgage fund (see chapter 7).

In order to formalise and promote communication and coordination mechanisms, the major financial regulators have begun entering into bilateral or multilateral MOUs. In addition to a multilateral MOU for information exchange established by the Finance Ministry, Bank of Mexico, CNBV, and IPAB in 2000, CNBV signed an MOU with Bank of Mexico in October 2008 that should facilitate stronger coordination in information sharing and joint examinations between the two institutions. The MOU enables Bank of Mexico to request a joint examination when it needs to, in particular, validate the accuracy of the information submitted by financial institutions or assess the observance of the rules issued by Bank of Mexico. Also, CNBV and IPAB signed an MOU in September 2007 to establish the conditions under which IPAB may request CNBV assistance in verifying the proper management of deposit-insurance-covered liabilities and obtaining necessary information.

The law empowers CNBV to exchange information with foreign counterparts based on bilateral MOUs. These MOUs cover not only banking but also securities market activities (see chapter 6) and provide, among other things, for the exchange of public and non-public information, surveillance visits, and the provision of technical assistance. CNBV also participates in the supervisory colleges of large cross-border financial firms that have a significant presence in Mexico.

As noted earlier (chapter 1), an inter-agency coordination body to monitor and assess system-wide risks was recently established, which is intended to strengthen macroprudential regulation.[21]

Lessons and issues going forward

Mexico has made impressive progress in updating its regulatory framework to bring it further in line with international good practice. The regulatory realignment through the revision to the banking law in 2008 greatly strengthened CNBV's operational independence and autonomy. As a financial regulator, CNBV is now granted clear supervisory powers through the life cycle of financial institutions within a new legal framework. Inter-agency coordination has been reinforced and formalised by establishing clear MOUs covering information sharing and joint inspections between the participating agencies. Also, the plan to reform the Financial System Stability Council should enhance communication and

[21] On July 28, the President of Mexico signed the decree for the establishment of the Financial System Stability Council ("*Consejo para la estabilidad del sistema financiero*"). The Council is led by the Minister of Finance and includes the heads of the Bank of Mexico, the CNBV, the CNSF, the CONSAR, and the IPAB.

harmonisation between financial authorities in safeguarding the stability of the financial system as a whole.

CNBV independence is one issue that deserves further consideration by the authorities:

- The Finance Ministry's authority to set and assign CNBV's annual expenditure from the national budget may constrain CNBV independence. CNBV has powers to raise revenues through supervisory fees, which should be used to ensure that sufficient resources are available to support its capacity to respond to emerging risks.[22] CNBV independence would be enhanced if it had more direct mechanisms to set its budget.
- CNBV's governance structure would be further strengthened if the head of CNBV were appointed for a minimum term and removed from office only for causes specified in the law. It may be also worth considering changing the composition of the Board of Directors to include independent full-time directors with fixed-term tenure.
- Streamlining formal consultation requirements with other agencies (including Bank of Mexico) before CNBV can make supervisory decisions could enhance its operational independence and facilitate the regulatory process. The consultation system is meaningful in terms of securing a balance in the regulatory and rule-making process, but it may sometimes cause unnecessary burden and confusion. Moreover, as the CNBV Board is already represented by high-ranking officials from agencies including the Finance Ministry and Bank of Mexico, the existing procedures can also be inefficient.
- Lastly, although the licensing authority for banking institutions has been shifted from the Finance Ministry to CNBV, the licensing authority for financial holding companies remains with the Ministry. This issue could be included in the regulatory agenda and addressed by amending the relevant law as necessary.

Adopting a system-wide, macroprudential approach to financial oversight is a key area both for Mexico and for many of its FSB peers. This encompasses the need both to strengthen domestic arrangements for systemic oversight, and to assess and regularly review the perimeter of regulation.

On systemic oversight, much attention is being devoted in Mexico to the inter-agency coordination committee that involves all the relevant authorities that share responsibility for maintaining financial stability. It would be important for this committee to develop a clear role and objectives to support a system-wide strategy on monitoring and assessing systemic risk that encompasses all relevant institutions (including nonbank ones) and markets. To be effective, the committee will require an information infrastructure that supports the gathering, analysing and reporting of system-wide information. This, in turn, will require coordination among the member agencies to work well in practice, which will test the existing set of bilateral or multilateral MOUs. To meet its responsibilities, the committee will need to develop macroprudential tools for identifying and responding to financial stability risks. Work on defining such tools is under way in a number of fora, including the BCBS.

[22] CNBV levies supervisory fees on regulated institutions that, for the past four years, have amounted on average 1.1 times its estimated budget. This mechanism allows coverage of the gap between actual expenditure and the annual budget authorised by the Finance Ministry. The remaining proceeds are deposited with the Federal Treasury.

Implementing these tools effectively will, again, require close working relationships among the member agencies.[23]

With regard to the perimeter of regulation, key challenges are: to better assess the systemic importance of financial institutions; to ensure that adequate data is available to back such an assessment and that the authorities have sufficient powers for information gathering; and to set up processes to ensure the assessments are conducted regularly so that the perimeter remains up to date. With respect to securities markets, potential areas that the authorities could consider for inclusion within the perimeter of regulation, based on an assessment of the systemic risk they pose, include the over-the-counter derivatives markets and securities clearing and settlement outside the regulated market. Those are areas where substantial policy development is underway at both the national and international levels.

5. Consolidated supervision

The 2006 FSAP pointed to areas for improvement in the way that financial supervision was conducted in Mexico on a consolidated basis. The detailed assessment of compliance with the Basel Core Principles for Effective Banking Supervision highlighted the lack of an autonomous supervisory agency with power to control all the activities of financial institutions at every stage, including their nonbank subsidiaries. Institutional arrangements on this issue were covered in chapter 4. This chapter deals with the implications of these weaknesses for conducting comprehensive consolidated supervision.

The FSAP concluded that Mexico had significantly improved its compliance with the Basel Core Principles in recent years. However, the practice of consolidated supervision required further strengthening in the following areas:

- Full consolidated supervision of financial conglomerates should be established to enable an adequate regulatory and supervisory view of the financial group as a whole. Capital adequacy requirements were set at the level of individual entities and not at consolidated group level, which created opportunities for multiple gearing, while there was no lead supervisor with the authority to oversee an entire financial group and its subsidiaries. Simultaneous inspections also fell short of truly joint inspections.[24]
- CNBV should have full power to license or revoke licences of any bank, nonbank subsidiary or financial group, and demand full disclosure on a consolidated basis. Although legislation allowed for adequate supervision, there was a segmentation of duties between several regulators (see chapter 4).

[23] It is worth noting that the new inter-agency committee, as currently envisaged, will not alter the mandate of any of the involved authorities. Each authority would continue to have the ultimate decision and responsibility for the issues currently included in its mandate. For example, the ultimate decision on the provision of emergency lending assistance would still fall on the Board of Governors of Bank of Mexico.

[24] It should be noted that conglomerate risks are mitigated by the Mexican civil code, which sets out in great detail the permissible activities of each type of financial entity. This creates segmentations that, while hindering synergies and financial innovation, help to limit conglomerate risks. Nevertheless, as groups increasingly follow a group-wide strategy, the scope for such risks inevitably widens.

- CNBV should have the authority to approve investments or outsourcing of critical functions by all banks or financial groups, and the ability to examine these institutions on a group-wide basis regardless of jurisdiction. Financial institutions in Mexico could outsource many of their activities to entities outside of Mexico without the approval or supervision of CNBV.[25]
- CNBV should have the authority to supervise financial or nonfinancial institutions set up by Mexican individuals that form parallel-owned banks in other jurisdictions where CNBV has no authority.[26]

Steps taken and actions planned

In response to the FSAP recommendations, the Mexican authorities have taken the following steps:

- CNBV was recently restructured to promote full consolidated supervision of financial conglomerates. Previously, different entities were supervised by different areas of CNBV even if they were part of the same financial group. These arrangements limited the ability to have an integral assessment of a financial group. Now, following the restructuring, every financial institution that is part of a financial group is supervised by the same team within CNBV (except pension funds and insurance companies). For financial groups under CNBV's supervision, this has resulted in a better assessment of risks at the group level as inspectors have better information regarding risk transfer between entities within the same financial conglomerate and can assess the overall risk position on a consolidated basis. In addition, CNBV issued rules on banks' and financial groups' disclosure and accounting principles on a consolidated basis (although insurance and retirement and pension funds are excluded from such consolidation). The authorities intend to revise the banking law and secondary regulation further to satisfy the FSAP recommendations.
- As noted in chapter 4, powers to license and revoke licenses of any bank and nonbank subsidiary have been transferred to CNBV, except for financial holding companies where the Finance Ministry still has the power to grant and revoke licences.
- The banking law authorises banks to outsource necessary services for their operations in line with rules issued by CNBV. It also establishes that banks can invest in companies that provide them with services with the prior authorisation of CNBV. Banking regulations establish that contracts for the provision of services to a bank should contain a clause specifying that the service provider will accept inspection visits from CNBV, an external auditor of the banking institution, or third parties designated by CNBV.

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[25] The Joint Forum and IOSCO issued guidance on outsourcing in 2005, stating that it should be overseen as part of the overall risk management process. See http://www.bis.org/publ/joint12.pdf.

[26] The BCBS issued guidance on parallel-owned banking structures in 2003. See http://www.bis.org/publ/bcbs94.pdf. Parallel banks are defined as "banks licensed in different jurisdictions that, while not being part of the same financial group for regulatory consolidation purposes, have the same beneficial owner(s), and consequently, often share common management and interlinked businesses. The owner(s) may be an individual or a family, a group of private shareholders, or a holding company or other entity that is not subject to banking supervision."

- As regards parallel-owned banks, banking legislation and regulation only enable CNBV to require information from a foreign bank or financial entity if they are subsidiaries of a Mexican bank or if they belong to a Mexican financial holding group. However, this is not the case when individuals set up banks in other jurisdictions.

Lessons and issues going forward

The crisis has brought to the fore the importance of monitoring risk on a consolidated basis, and Mexico has put in place a comprehensive framework for the regulation and supervision of financial groups. The focus of attention should now be on ensuring that the new framework is effective, in practice, in capturing the full spectrum of activities and risks of financial groups – especially those that take place offshore. In particular, unsupervised outsourcing activities outside of the domestic jurisdiction can pose substantial operational risks – depending on the functions that are being outsourced – and would need to be monitored closely.

The phenomenon of parallel-owned banks by Mexican individuals in other jurisdictions without oversight by CNBV raises important challenges. CNBV regularly supervises Mexican subsidiaries, agencies, and branches abroad that are part of a defined financial group and thus are subject to consolidated supervision. The difficulty inherent to parallel banks is that they entail banking relationships that are not supervised and may represent an attempt to evade prudential regulations. The BCBS has set out supervisory guidelines for dealing with parallel banks, and going forward Mexican banking law and secondary regulation will need to be revised in order to effectively tackle these challenges.

6. Securities regulation and market infrastructure

The 2006 FSAP reported major improvements in the implementation of the IOSCO Objectives and Principles of Securities Regulation. The CNBV's authority in securities regulation had been expanded, and transparency and market infrastructures improved. Equally importantly, the quality of the regulatory framework, and of its enforcement, had improved significantly: CNBV's responsibility to license, oversee, and regulate capital markets had been expanded; its responsibility and powers to investigate violations of the securities laws, take disciplinary action, and share information with other regulatory entities in Mexico and internationally had been clarified; CNBV's internal operations, including updated secondary regulations on disclosure requirements for listed companies, had improved; requirements to promote the independence of external auditors had been strengthened; and greater transparency had been achieved in the development of regulations.

As a result of these changes, the IOSCO assessment conducted in 2006 found that Mexico "implemented" 27 out of 30 IOSCO Principles, and "broadly implemented" three. The Principles found to be only broadly implemented referred to matters of independence and operational autonomy and are covered in chapter 4.

With respect to market infrastructure, the FSAP noted that the Mexican infrastructure for large value payment and securities settlement had been modernised and its safety and soundness improved substantially in recent years. It recommended the following additional improvements:

- the two domestic central counterparties (derivatives and stock exchange) and the securities settlement system DALÍ (which replaced SIDV) should carry out self-assessments on implementation of the CPSS-IOSCO Recommendations on Securities Settlement Systems; and
- the large-value payment systems SIAC and SPEI should carry out self-assessments of observance of the CPSS Core Principles for Systemically Important Payment Systems.

Steps taken and actions planned

The Mexican authorities have taken several steps to further strengthen securities regulation:

- CNBV established in August 2009 a specific department for securities enforcement. In addition, the securities market law requires sanctions to be posted on the CNBV website.
- The securities market law gives CNBV extensive powers to exchange information (including information subject to financial secrecy) with foreign counterparts based on MOUs. CNBV is a signatory to the IOSCO Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information (MMOU) since 2003, which is considered the international standard on cooperation and exchange of information in the securities sector. CNBV has also in place numerous bilateral MOUs with foreign counterparts in the securities field.[27] These MOUs provide for, amongst other things, the exchange of public and non-public information, dealing with requests related to oversight, enforcement and disciplinary actions, and facilitate surveillance and other types of visits as well as the provision of technical assistance and training. Other actions of the regulator that promote international cooperation are CNBV's participation in supervisory colleges and the setting up of an international alerts system whereby CNBV releases alerts to prevent and deter illegal activities.
- CNBV is drafting rules for price vendors that provide valuations to collective investment schemes, including a code of conduct to enhance the price determination process in terms of transparency and internal controls. It is also examining the possibility of issuing rules for fair value determination, considering the particularities of the local market.
- CNBV can now issue special authorisations for securities firms willing to perform limited activities and services. Amendments to securities regulations in 2008 established minimum capital requirements for these firms based on the performance of different sets of activities and services – from underwriting securities to full broker-dealers.
- Regulations were amended in 2010 to require all securities firms to identify a person or area responsible for reviewing trading systems. These individuals must obtain a certification with the Mexican Intermediaries Association to perform their functions.
- On price transparency in the debt market, CNBV is developing regulatory amendments for the investment management process. Financial statements will disclose both the

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[27] The securities area is generally included under any MOU that CNBV negotiates with foreign counterparts (see chapter 4).

market price at which an intermediary has bought a debt security in the name of a client, and the price at which that same intermediary sells that security to the client. The spread between these two prices must be explained to the client and, in addition, comparison spreads will have to be provided.

Additional projects in progress include:

- restructuring the CNBV website to make it more user-friendly by improving its contents, design, and accessibility features;
- setting up a "whistle-blower system" within regulated entities, which will be expected to educate their employees in regulatory matters, in order to make sure that improper conduct is well understood and reported;
- allowing the creation of "side pockets" for mutual funds to separate illiquid or hard-to-value assets from other liquid investments; and
- revamping the regulatory framework for securities sales practices and investment management, notably to impose stricter fit-and-proper requirements for those who sell, advise and take investment decisions on behalf of clients.

The Mexican authorities are also pursuing further strengthening of the credit infrastructure in a number of ways, including: the development of a regulatory framework for the issuance of covered bonds (see chapter 7); improving the ability of borrowers to pledge collateral to guarantee trusts; and development of specialised commercial courts. These efforts are welcome and complement a range of initiatives in recent years to promote stronger collateral recovery and credit information infrastructures.

With regards to payment and securities settlements systems, Bank of Mexico has conducted assessments of compliance with the relevant standards for the systems it operates and/or oversees:

- Self-assessments of observance of the CPSS Core Principles by the payment systems that Bank of Mexico operates (SIAC and SPEI) found both systems to be fully observant.
- The DALÍ assessment conducted and published in 2009 found that the new securities settlement system showed improved observance of the CPSS-IOSCO recommendations for securities settlement systems compared with the previous system, although some actions were still required to fully implement the recommendations. A work plan of actions to improve implementation is under preparation.
- Assessments of implementation by the central counterparty for equities (CCV) of the CPSS-IOSCO recommendations for central counterparties were undertaken in 2007 and 2009. Actions taken in-between the two assessments indicated an improved level of adherence. A work plan of actions to improve implementation is under preparation.

Lessons and issues going forward

The Mexican regulatory framework, systems, and controls in relation to securities regulation have improved significantly in the past decade and continue being developed. As noted in chapter 1, the recent crisis found Mexico relatively well equipped to deal with financial market tensions. Measures were implemented to reduce uncertainty, restore confidence, and maintain the adequate functioning of markets. As noted earlier, the experience of the crisis led to higher disclosure requirements for derivatives in the context of greater overall transparency efforts. CNBV also stepped up its surveillance and enforcement actions against illegal activities and entities that were brought to light during the crisis, including through enhanced international cooperation on enforcement.

A key challenge for the authorities in the securities area will be to ensure continued attention to the emergence of system-wide risks and relatedly, that the regulatory perimeter is reviewed regularly and encompasses all areas that pose systemic concerns (see chapter 4).

Despite a modern regulatory framework, the market size in Mexico remains small compared with countries at similar levels of development. This has highlighted the importance of building investor confidence through increased transparency as well as investor education. The challenge for CNBV is to work on expanding financial inclusion (which requires basic financial education) and market access, while regulating a relatively small number of highly sophisticated investors. To improve investor confidence, the regulator is working in parallel on several fronts: upgrading its website; improving communication with investors and the public in general; reporting regularly on its activities, plans and strategies; encouraging the development of simple products; simplifying the presentation of financial statements so that the key facts are all found on the first page; developing a financial education culture; and ensuring that sales practices adhere to international principles.

Efforts to continue raising financial literacy will be particularly important, including through programs targeted to specific groups – such as teachers and youths through school programs – in addition to the general public.[28] Equally important for investor education will be the efforts to simplify disclosures not only of financial statements but also of prospectuses prepared for securities issues – through an upfront layer of much simpler, shorter, clearer information that would accompany the more complex legal documentation – to help investors make informed decisions about investing in securities. There should be continued emphasis on cracking down on illegal activities, including the marketing and sale of illegal products. The establishment of a "whistle-blower" system through which regulated firms' employees and the broader public can make complaints to regulators will reinforce efforts in this area. Finally, continued efforts to promote the development of institutional investors (pension funds, life insurance companies and collective investment funds) will help to establish a vibrant, sophisticated investor base and in turn, deeper securities markets.

7. Housing finance

The 2006 FSAP sought to further develop the Mexican housing finance market as a critical step towards financial and economic development. After the Tequila Crisis, commercial banks had withdrawn from housing finance, especially in the low- and middle-income segments, and special-purpose nonbank financial institutions (sofoles and sofomes) emerged to fill this demand. The Mexican authorities focused their reform efforts on the activities of

[28] The OECD has established an International Gateway for Financial Education to share information, experiences and best practices on financial education between governmental representatives and key stakeholders. See http://www.oecd.org/pages/0,3417,en_39665975_39666038_1_1_1_1_1,00.html.

SHF, the government-owned development bank specialised in housing. SHF started operations in 2002 with a mandate to foster the primary and secondary market for mortgage loans. At the beginning, and as part of its mandate, SHF funded nonbank financial institutions through mortgage and construction credit lines; however, SHF's by-laws required direct funding to stop by end-2009 in order to promote private sources of funding to the mortgage market. To facilitate the transition from public to private funding, SHF worked to develop a securitisation market by providing credit enhancements in the form of financial guarantees to mortgage originators, issuing standards for mortgage-backed securities, and playing a key role as market maker. Moreover, SHF promoted the development of a mortgage default insurance market in Mexico. SHF's strategy was to encourage private insurers to enter the market through risk-sharing agreements and gradually convert itself into a reinsurer of risks not taken by private firms.

Two housing funds, INFONAVIT and FOVISSSTE, have been key players in the mortgage market. Traditionally, commercial bank mortgage activity in Mexico concentrated on the middle- to upper-income segments. In 1972, INFONAVIT (for private sector employees) and FOVISSSTE (for public sector employees) were created as construction and housing development funding agencies to support government-sponsored low-income housing finance. They are funded by a mandatory contribution of 5% on gross wages.

Against this background, the 2006 FSAP recommended that the authorities:

- Establish plans for the orderly consolidation of mortgage sofoles, once the SHF stopped lending to them. Mortgage sofoles that continued being dependent on SHF funding would have to change business model, be acquired by a bank, or exit the market.
- Maintain the 2009 sunset clause for SHF to stop its second-tier lending. Implementing this clause was seen as an important part of the strategy for the development of private mortgage markets.
- Encourage FOVISSSTE to follow INFONAVIT by voluntarily accepting CNBV supervision.

Steps taken and actions planned

In response to the FSAP recommendations, the authorities have taken the following actions:

- SHF fostered the gradual development of private sources of funding for the institutions it was financing directly. SHF focused on providing guarantees to secure credit lines from banks, individual loan guarantees, and developing a securitisation market.
- In April 2008, Congress repealed the 2009 sunset clause and required SHF to continue providing funding because of unserved market segments, particularly the low-income segment in the informal sector. This decision also proved crucial for maintaining liquidity to sofoles and sofomes, which had relied on domestic wholesale financing and experienced severe liquidity pressures during the crisis.

The crisis also highlighted the need for changes to the current model of housing finance:

- Rules for constituting "niche banks" were published in November 2009, which will help specialised non-bank intermediaries to convert to niche banks. Changes are also planned in the regulation of sofomes (see chapter 1).

- A regulatory framework for covered bonds will be introduced to support long-term bank financing to the housing sector.
- The regulatory framework for asset-backed securities has been strengthened, including: (i) a mandatory requirement for issuers to maintain a subordinated bond as a percentage of total issuance; (ii) enhanced information and analytical tools available to investors; (iii) increased requirements on trustees and portfolio administrators.

CNBV was authorised in 2007 to supervise the operations and book-keeping of FOVISSSTE, with powers similar to those for supervising development banks, including the authority to establish prudential rules that have to be followed by FOVISSSTE. CNBV issued in January 2008 general accounting rules for FOVISSSTE.

Lessons and issues going forward

The global financial crisis has forced the Mexican authorities to re-evaluate their housing finance strategy. Because of the crisis, SHF had to continue operating as a development bank, providing contingency funding to specific market segments and funding to the market more broadly as private sources of financing dried up. SHF is currently playing a short-term role in restructuring the housing finance model, and has a longer-term, structural role serving those segments that remain unserved by the private sector. As market conditions normalise, progressively rolling back SHF's direct financing to the mortgage market will be important to encourage private sector financing to expand. This transition will have to be managed carefully to ensure transparency, adequate risk management, and the appropriate alignment of incentives for market participants. The Mexican authorities' approach also places emphasis on other market mechanisms, including strengthening the necessary legal infrastructure (property rights, foreclosure procedures, specialised courts, etc.).

Development of a mortgage-backed securities market is a fundamental step towards further developing housing finance in Mexico and encouraging private sector entry into the market. SHF remains a key driver in this area by shaping the primary and secondary housing markets, providing mortgage guarantees, and developing a market for residential mortgage-backed securities. Additional steps have been taken to develop a sound regulatory framework for mortgage-backed securities and plan to be taken with respect to covered bonds.[29] This could help expand credit supply and thereby achieve a sustainable increase in the supply of housing.

[29] There are ongoing policy initiatives at both national and international level in this area, particularly on the need to re-establish securitization on a sound basis.

Annex: Mexico peer review – Selected FSAP recommendations

Risk monitoring and contingency planning

Relevant FSAP Recommendations	• Strengthen monitoring of credit risks associated with consumer and mortgage lending. • Continue to strengthen the monitoring of banks' liquidity and contagion risks. • Introduce interagency contingency planning and develop internal protocols regarding emergency liquidity assistance. • Better coordinate the design of stress scenarios within the BOM, between the CNBV and the SHCP, and among supervisors and banks, to improve the analysis of financial system-macro shocks linkages. • Develop continuity plans in conjunction with the private sector.

Safety net arrangements

Relevant FSAP Recommendations	• Consider market discipline-supporting measures for deposit insurance such as a reduction in coverage and the charging of risk-based premiums. • Establish an effective framework for the liquidation of banks and enable partial deposit transfers under Purchase and Assumption (P&As). • Seek a suitable formula to improve the financial condition of the Institute for the Protection of Bank Savings (IPAB), including the transferring of its debt to the federal government.

Inter-agency coordination and supervisory autonomy

Relevant FSAP Recommendations	• Realign regulatory functions by shifting most regulatory powers from the SHCP to the Commissions, following the precedent established for securities regulation by the New Securities Markets Law. • Further strengthen coordination among regulatory agencies through strong memoranda of understanding that set out clear responsibilities and accountabilities. • Establish full autonomy of supervisory agencies, subject to adequate accountability standards. • Consider possible consolidation of regulatory commissions.
Relevant BCP Assessment Recommendations	• Principle 1 (Objectives, Autonomy, Powers, and Resources): Make the CNBV a single autonomous supervisory agency with power to control all the activities from the licensing through the demise of a financial institution including all nonbank subsidiaries. • Principle 5 (Investment Criteria): The CNBV should have formal authority to approve investments by banking institutions. Currently, the CNBV shares approval authority with the SHCP.
Relevant IOSCO Assessment Recommendations	• Principles 1-5 (Principles Relating to the Regulator): Enhance CNBV's budgetary independence. The creation of fixed-term appointments for its Board members and a reduction in the number of areas requiring formal consultation with other governmental entities would also enhance CNBV independence and effectiveness. • Principles 6-7 (Principles of Self-Regulation): The multiplicity of governmental agencies involved in the oversight of SROs has impeded the futures market's ability to innovate and expand.

Consolidated supervision of financial conglomerates

Relevant FSAP Recommendations	• Establish full consolidated supervision of financial conglomerates.
Relevant BCP Assessment Recommendations	• BCP 20 (Consolidated Supervision): The CNBV should have full power to license or revoke licenses of any bank, nonbank subsidiary, or financial group and demand full disclosure on a consolidated basis with the concurrence of the CNBV's Board of Directors. Legislation must give the CNBV the authorization to approve investments or outsourcing of critical functions by all banks or financial groups, and the ability to examine these institutions on an enterprise-wide basis. • BCP 23 (Globally Consolidated Supervision): Continue to formulate legislation to allow the CNBV to supervise financial or nonfinancial institutions set up by Mexican individuals that basically form parallel banks in other jurisdictions where the CNBV has no authority. When the foreign bank is owned by a holding company, the CNBV has the authority to request financial information to satisfy its concerns. However, Mexican banks are performing data-processing functions for foreign subsidiaries, as well as outsourcing to entities outside of Mexico. The CNBV should have the supervisory authority to review these functions regardless of jurisdiction.

Securities regulation and market infrastructure

Relevant IOSCO Assessment Recommendations	• Principles 1-5 (Principles Relating to the Regulator): Additional transparency and due process protection in the CNBV disciplinary process would be beneficial. • Principles 8-10 (Principles for the Enforcement of Securities Regulation): The CNBV should continue to develop its enforcement program and utilize the enhanced powers that it has received. It would be beneficial if the CNBV had the legal authority to issue orders requiring remedial or corrective action and possessed some ability to require persons or entities to reimburse persons who suffered losses from violations. While these remedies are not required under the IOSCO principles, they are included within the broad list of possible sanctions that a regulator could possess. Finally, the CNBV should utilize its authority to publicize its activities to inform the investing public and educate regulated persons about conduct that is improper. • Principles 11-13 (Principles for Cooperation in Regulation): The CNBV should continue its efforts to promote and enhance information sharing among Mexican financial regulators and with foreign regulators. • Principles 14-16 (Principles for Issuers): The IMCP should take the next step to review and upgrade Mexican auditing standards in line with International Standards on Audit. • Principles 17-20 (Principles for Collective Investment Schemes): The reliance on price valuators makes the effectiveness of the two valuators pivotal to pricing and industry integrity. Their operations should be carefully reviewed to determine whether a secondary regulation is needed on alternative pricing methodology and the occasions when it should be used. • Principles 21-24 (Principles for Market Intermediaries): The CNBV should complete its secondary regulation on licensing of limited function securities firms. AMIB should be encouraged to develop tests for certification of compliance and risk management officers at firms. The CNBV should continue its efforts to monitor risk management on a consolidated basis. • Principles 25-30 (Principles for the Secondary Market): The futures market would benefit from a streamlined oversight system that does not unduly delay its ability to develop and offer new products. An effort should be made to improve price transparency in the debt market, by expanded access to quotations and timely access to last sale reporting information on thinly traded debt issues.
Relevant FSAP Recommendations	• Carry out self-assessment of SIAC and SPEI regarding observance of the CPSS CPSIPS. Also, carry out self-assessments of the SIDV and the two Central Clearing Counterparties (CCPs) regarding observance of CPSS/IOSCO recommendations.

Housing finance

Relevant FSAP Recommendations	• Establish plans for orderly consolidation of mortgage Sofoles once the SHF stops second-tier lending to them. • Maintain the 2009 sunset date for the state-owned SHF second-tier lending to fund middle- and high-income housing. • Encourage FOVISSSTE to follow INFONAVIT by voluntarily accepting CNBV supervision.