FSB FINANCIAL STABILITY BOARD

Peer Review of Mexico

Review Report

19 March 2020

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Foreword

Financial Stability Board (FSB) member jurisdictions have committed, under the FSB Charter and in the *FSB Framework for Strengthening Adherence to International Standards,*[1] to undergo periodic peer reviews. To fulfil this responsibility, the FSB has established a regular programme of country and thematic peer reviews of its member jurisdictions.

Country reviews focus on the implementation and effectiveness of regulatory, supervisory or other financial sector policies in a specific FSB jurisdiction. They examine the steps taken or planned by national/regional authorities to address IMF-World Bank Financial Sector Assessment Program (FSAP) and Reports on the Observance of Standards and Codes (ROSCs) recommendations on financial regulation and supervision as well as on institutional and market infrastructure that are deemed most important and relevant to the FSB's core mandate of promoting financial stability. Country reviews can also focus on regulatory, supervisory or other financial sector policy issues not covered in the FSAP that are timely and topical for the jurisdiction and for the broader FSB membership. Unlike the FSAP, a peer review does not comprehensively analyse a jurisdiction's financial system structure or policies, or its compliance with international financial standards.

FSB jurisdictions have committed to undergo an FSAP assessment every five years; peer reviews taking place typically two to three years following an FSAP will complement that cycle. As part of this commitment, Mexico volunteered to undergo a peer review in 2019.

This report describes the findings and conclusions of the Mexico peer review, including the key elements of the discussion in the FSB's Standing Committee on Standards Implementation (SCSI) in December 2019. It is the second FSB peer review of Mexico and is based on the objectives and guidelines for the conduct of peer reviews set forth in the *Handbook for FSB Peer Reviews.*[2]

The analysis and conclusions of this peer review are based on the responses to a questionnaire by financial authorities in Mexico and reflect information on the progress of relevant reforms as of December 2019. The review has also benefited from dialogue with market participants and the Mexican Financial Authorities (MFAs) as well as discussion in the FSB SCSI. On 11 March 2020, a regulatory amendment was published for consultation that, according to the MFAs, would remove some of the barriers to full reporting of Mexican trade repository (TR) data to foreign TRs and thereby address some of the findings in this report. However, the review team has not examined this draft regulation.

The draft report for discussion was prepared by a team chaired by Ángel Benito (Comisión Nacional del Mercado de Valores, Spain) and comprising Nancy R. Doyle (US Commodity Futures Trading Commission), Kevin Fine (Ontario Securities Commission, Canada) and Sergio Schreiner (Securities and Exchange Commission of Brazil). Michael Januska, Costas Stephanou, Cristina Picillo (as of June 2019) and Laurence White (until May 2019) from the FSB Secretariat, and José Manuel Portero Bujalance (Comisión Nacional del Mercado de Valores, Spain) provided support to the team and contributed to the preparation of the report.

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[1] See the *FSB Framework for Strengthening Adherence to International Standards* (January 2010).

[2] See the *Handbook for FSB Peer Reviews* (April 2017).

Abbreviations

Asigna	Mexican Derivatives clearing house
Banxico	Banco de México (Central Bank of Mexico)
Banxico TR	Bank of Mexico TR-like entity
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CCP	Central counterparty
CDE	Critical Data Elements (other than UPI and UTI)
CESF	Financial Stability Council
CME	Chicago Mercantile Exchange
CNBV	National Banking and Securities Commission
CNSF	National Insurance and Bonding Commission
CONSAR	National Commission for the System of Retirement Savings
CPMI	Committee on Payments and Market Infrastructures
ETD	Exchange-traded derivatives
FSB	Financial Stability Board
FSAP	IMF-World Bank Financial Sector Assessment Program
FX	Foreign exchange
IAIS	International Association of Insurance Supervisors
IOSCO	International Organization of Securities Commissions
IMF	International Monetary Fund
IRS	Interest rate swap
LEI	Legal Entity Identifier
LMV	Securities Market Law
MexDer	Mexican Derivatives Exchange
MFAs	Mexican Financial Authorities
MXN	Mexican peso
NCCDs	Non-centrally cleared derivatives
OTC	Over-the-counter
PFMI	CPMI-IOSCO *Principles for Financial Market Infrastructures*
SHCP	Ministry of Finance and Public Credit
TIIE	28-day interbank equilibrium interest rate
TR	Trade repository; “TR-like entity”
UDI	Unit of Investment
UPI	Unique Product Identifier
USD	United States Dollar
UTI	Unique Transaction Identifier

Executive summary

Background and objectives

The main purpose of this peer review is to examine over-the-counter (OTC) derivatives market reforms in Mexico. The peer review focuses on the steps taken by the authorities to implement reforms in this area and makes recommendations in response to identified gaps.

Main findings

Mexico's OTC derivatives market is relatively small from a global perspective, but is the largest in Latin America. Banks are the most active derivatives market participants (83% market share), followed by brokerage firms. The market has a substantial cross-border component, with foreign banks being important players. Interest rate derivatives are the predominant asset class as measured by notional amount outstanding, while foreign exchange (FX) trades dominate daily turnover.

Mexico does not have a specific law dedicated to regulating OTC derivatives markets, but the authorities in recent years undertook several initiatives to enhance the rules and procedures that apply to these markets. Derivatives market regulation relies on general provisions involving the Ministry of Finance and Public Credit (SHCP), Bank of Mexico (Banxico), and the National Banking and Securities Commission (CNBV). SHCP, Banxico and CNBV are collectively referred to in this report as the Mexican Financial Authorities (MFAs).

The MFAs have made good overall progress in their implementation of OTC derivatives reforms. Mexico has implemented comprehensive requirements for trade reporting, central clearing and platform trading, with a strong focus on quality, public transparency, and analysis of trade repository (TR) data. The authorities have advanced these reforms in a thoughtful, collaborative and proactive manner, and state that they are committed to further progress on these reforms with the same cooperation and information-sharing arrangements among each other.

Notwithstanding these achievements, as is the case in other countries, further steps can be taken in this area. These include: completing implementation of remaining OTC derivatives reforms on a timely basis; expanding CNBV authority for aspects of the supervision and enforcement of conduct of market participants; and expanding the scope and sharing of TR data. These steps should be supported by efforts to ensure that MFAs – particularly the CNBV – have adequate resources and powers to fulfil current (and potentially expanded) OTC derivatives-related responsibilities.

***Completing implementation of remaining OTC derivatives reforms on a timely basis*:** Margin and final capital requirements for non-centrally cleared derivatives (NCCDs) are still pending. Banxico should finalise the rules proposed in its 2019 public consultation and ensure that they are implemented on a timely basis and are aligned with international standards. This includes applying activity thresholds to exempt from margin requirements at the group rather at the entity level, and extending margin requirements to insurance companies and non-financial entities subject to appropriate thresholds. Banxico should also consider aligning the final rules with international best practices by requiring more frequent recalculation of initial margin amounts. Taking steps to consult and publish final capital requirements for NCCDs will strengthen incentives to centrally clear. The MFAs are also encouraged to reassess periodically possible new products for mandatory central clearing and electronic trading, if the necessary preconditions materialise.

The MFAs should continue with their plan to adopt the globally harmonised Unique Transaction Identifier (UTI) in concert with the timelines set out by standard-setting bodies, and also implement the Unique Product Identifier (UPI) and other critical OTC derivatives data elements (CDE). This will allow globally active market players to report information in the same way to domestic and foreign TRs, thereby assisting in the global aggregation of TR data.

***Expanding CNBV authority for aspects of supervision and enforcement of conduct*:** Banxico has the power to issue sanctions upon financial entities, but only for the technical and operational aspects of derivatives transactions it regulates. CNBV has supervisory and prudential oversight of some entities active in OTC derivatives markets, but has limited powers to create and enforce conduct rules specifically for market participants relating to OTC derivatives. In particular, CNBV has limited powers to sanction individual conduct or apply market manipulation or insider trading rules for some derivatives activities. In addition, it does not have powers to issue and enforce conduct rules on OTC derivatives activity of non-listed non-financial entities, or supervisory power over entities that only deal in derivatives and not securities.

Misconduct in wholesale markets, such as those for OTC derivatives, can undermine their effective operation and participants' and the public's confidence in using those markets. Powers to issue and enforce comprehensive conduct rules on OTC derivatives activity, for both financial and non-financial entities, should reside with CNBV, consistent with best practice in other jurisdictions. Placing such powers within CNBV, the securities regulator, may require legislative changes.

***Expanding the scope and sharing of TR data*:** Banxico runs the only TR in Mexico and has, from inception, focused heavily on quality and comprehensiveness of the data it receives. Aggregated OTC derivatives data is published on Banxico's website, and MFAs' access to and use of TR data appears consistent with international OTC derivatives reform requirements. Furthermore, Banxico and CNBV are using the derivatives data extensively for data analysis and oversight. Notwithstanding the long-standing experience in reporting and using TR data in Mexico, and the high quality of such reporting, there is room to expand the scope of TR data reporting to ensure that the MFAs have a comprehensive view of the entire Mexican OTC derivatives market:

- First, while publicly listed non-financial companies are required by CNBV to disclose their OTC derivatives outstanding positions on a quarterly basis, they are not as detailed as the daily transaction data that Banxico receives directly from financial entities. At a minimum, publicly listed companies trading OTC derivatives above appropriate thresholds should be required to submit more granular (i.e. transaction-by-transaction) and frequent (best practice is daily) OTC derivatives transaction data to the CNBV.
- Second, data on OTC derivatives from insurance companies and non-publicly listed non-financial companies are not reported to Banxico or another MFA when the counterparty is not an entity subject to reporting obligations. The MFAs are of the view that non-financial entities that are not publicly listed, and thus do not report data to the

Banxico TR, are relatively few and have a low trading volume. The authorities also note that non-financial entities are not permitted to act as derivatives dealers. Nonetheless, in the future, it is possible that the use of OTC derivatives by such companies will become more significant, which could pose a systemic risk or give rise to misconduct cases. The MFAs should therefore have access to all OTC derivatives transaction data involving Mexican counterparties, including these entities, subject to appropriate thresholds.

- Third, Banxico only collects position data from financial firms on a monthly basis. Although the G20 commitments do not set the frequency for receipt of position data, the lack of information for 30 days on the evolution of the mark-to-market value of large OTC derivatives transactions could limit systemic risk monitoring in fast-moving markets. The burden for market participants of reporting positions on a daily (rather than on a monthly) basis may be limited since information on daily valuation of the positions is often available for OTC derivatives transacted or settled offshore in some foreign jurisdictions.

With regard to cross-border sharing of data, the requirement for CNBV and Banxico to review the types of data that central counterparties (CCPs) and MexDer (the Mexican Derivatives Exchange) will share with foreign TRs recognised by MFAs establishes a de facto barrier to full cross-border reporting. The MFAs should remove all barriers to full reporting of Mexican TR data to foreign TRs, including any prohibitions on the ability of non-Mexican entities to provide the name of Mexican derivatives counterparties to foreign TRs along with the related trade details. Following the recommendation, the MFAs are taking steps to remove such barriers through revisions to the Tripartite Rules and Circular 4/2012.

Recommendations

In response to the aforementioned findings and issues, the peer review has identified the following recommendations to the Mexican authorities:

1. The Mexican authorities should complete implementation of remaining OTC derivatives reforms on a timely basis by adopting: (a) final capital requirements for NCCDs; (b) margin requirements for NCCDs, including for pension funds, insurance companies and non-financial entities, subject to appropriate thresholds and exceptions; and (c) the globally harmonised UTI, UPI and CDE. The authorities should also continue to reassess periodically new products for mandatory clearing and electronic trading where appropriate.
2. The Mexican authorities should expand CNBV's existing authority over, and implement rules for, aspects of supervision and enforcement of conduct of market participants of the entire Mexican OTC derivatives market.
3. The Mexican authorities should remove barriers to full reporting of Mexican TR data to foreign TRs. They should also expand the scope of TR data by: (a) considering enhancements in the frequency and granularity of TR data reporting from publicly listed companies; (b) requiring TR data reporting from insurers and non-financial entities that are non-listed (subject to thresholds, where appropriate); and (c) considering daily position data reporting requirements (subject to thresholds, where appropriate).

1. Introduction

Mexico completed its first FSB peer review in 2010.[3] The review examined the steps taken or planned by the Mexican authorities in response to the recommendations on regulation and supervision in the 2006 IMF-World Bank Financial Sector Assessment Program (FSAP).

Mexico subsequently underwent FSAP Updates in 2012 and 2016.[4] The 2012 FSAP Update included assessments of the Basel Committee for Banking Supervision (BCBS) *Basel Core Principles for Effective Banking Supervision,* International Association of Insurance Supervisors (IAIS) *Insurance Core Principles,* and International Organization of Securities Commissions (IOSCO) *Objectives and Principles of Securities Regulation.* The 2016 FSAP Update concluded that Mexico's financial system is broadly resilient, notwithstanding some weaknesses under certain adverse shocks. It found that significant progress has been achieved in strengthening financial sector prudential oversight but important gaps in the governance of the supervisory framework remain. It also found that the financial sector safety net is solid but could be improved further (e.g. on governance gaps, multiplicity of mandates, and the size of the ex ante resolution fund), and that more work is needed to strengthen the resolution and crisis management frameworks. Finally, it noted the establishment of the Financial Stability Council (CESF) was an important step towards a system-wide approach to managing risks to financial stability but called for its role and standing to be further enhanced.

The IMF's 2019 Article IV consultation[5] concluded that the Mexican economy has continued to exhibit resilience in the face of a complex environment, but that growth had come to a standstill. The report noted that the financial sector remains resilient to various shocks, but close monitoring remains crucial; that resilience could be enhanced by closing regulatory and supervisory gaps, including by increasing the operational independence, budget autonomy and legal protection of the banking and securities supervisor; and that the resolution and crisis management framework needed strengthening.

Implementation of G20 priority reforms in Mexico is most advanced for Basel III reforms (where several core elements have been adopted), compensation-related reforms, and OTC derivatives reforms. Implementation is less advanced for reforms aimed at ending too-big-to-fail and enhancing the resilience of non-bank financial intermediation. Annex 1 provides background information on Mexico's implementation status of G20 reforms, including reasons given by the authorities for the delays as well as expected completion dates in core reform areas.

This peer review examines the implementation of OTC derivatives market reforms in Mexico. The review focuses on the steps taken by the authorities to implement reforms in this area, including by following up on relevant G20 commitments.

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[3] See FSB *Peer Review of Mexico* (September 2010).

[4] See *Mexico: Financial System Stability Assessment* (November 2016, IMF Country Report No. 16/361). The detailed assessments on the observance of standards and codes have been published on the IMF website (http://www.imf.org/external/np/fsap/fsap.aspx).

[5] See *Mexico: 2019 Article IV Consultation* (November 2019, IMF Country Report No. 19/336).

2. OTC derivatives market reforms

Background

In response to the global financial crisis, which had exposed weaknesses in the structure of OTC derivatives markets, the G20 initiated a fundamental overhaul of these markets with the objectives of mitigating systemic risk, improving transparency, and protecting against market abuse. The weaknesses exposed by the crisis included the build-up of large counterparty exposures between market participants that were not appropriately risk-managed; contagion risk arising from the interconnectedness of market participants; and the limited transparency of overall counterparty credit risk exposures that precipitated a loss of confidence and market liquidity in time of stress.

As part of their response to the crisis, the G20 Leaders agreed in 2009 that all OTC derivatives should be reported to TRs; that standardised OTC derivatives should be centrally cleared, and where appropriate, traded on exchanges or electronic trading platforms; and that NCCDs should be subject to higher capital requirements. In 2011 the G20 Leaders also agreed minimum standards on margin requirements for NCCDs.[6]

This section provides an overview of the Mexican OTC derivatives market and analyses the progress to date, implementation challenges and planned next steps with respect to the reforms. In particular, it examines the legal and regulatory framework and institutional arrangements in relation to OTC derivatives; trade reporting requirements and the access to and uses of TR data; central clearing requirements and the process for determining products for mandatory clearing; as well as the plans for implementation of platform trading and the adoption of margin requirements. Drawing on available information and guidance by the FSB and standard-setting bodies, it highlights lessons of experience and makes recommendations in response to identified issues.

Market structure

The notional amount outstanding of derivatives in Mexico has grown constantly since 2010 and reached MXN 33 trillion (equivalent to USD 1.7 trillion) as of December 2018, according to Banxico.[7] Of this total, MXN 23.7 trillion corresponded to non-centrally cleared OTC markets, with the remainder consisting of both centrally cleared OTC and exchange traded derivatives.

Banks are the most active derivatives market participants (83% market share), followed by brokerage firms (16%, up from 7% in 2014). Other financial intermediaries have the remaining 1% share of the market. Funds have very limited activity in derivatives: pension funds need a

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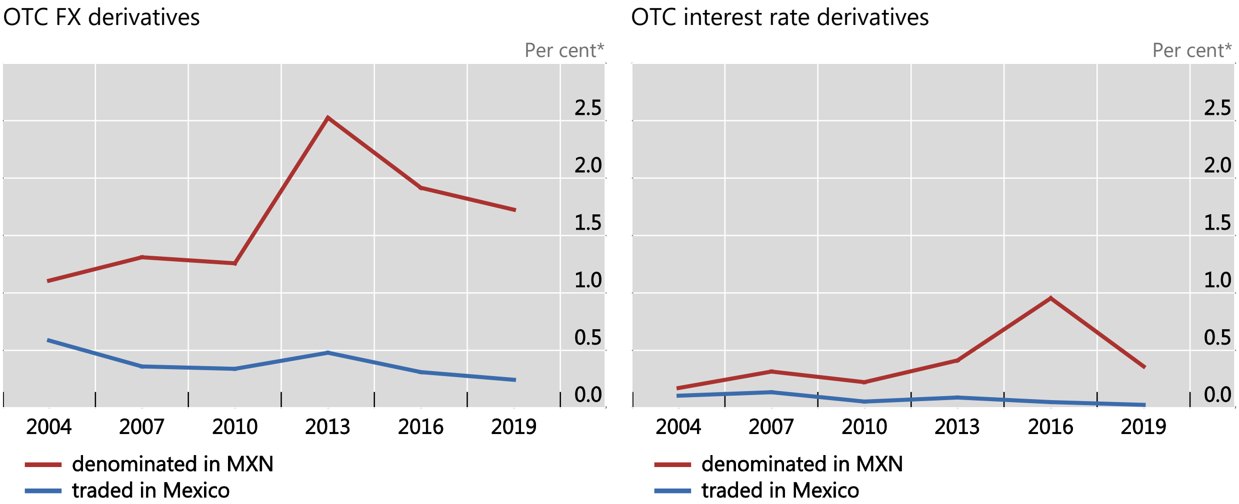
6 See the G20 Leaders' Statement: The Pittsburgh Summit (September 2009) and G20 Leaders' Cannes Summit Final Declaration (November 2011).

7 See https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?sector=19&accion=consultarCuadro&idCuadro=CF581&locale=en and https://www.banxico.org.mx/IndicadoresGraficos/actions/contenidoPortal/mercadosFin/1/3?locale=en.

specific authorisation to trade derivatives; while investment funds have restrictions on short positions and leverage.

Mexican counterparties trade OTC derivatives in all five asset classes: FX, interest rate, commodities, equities, and credit derivatives. Interest rate OTC derivatives are the predominant asset class as measured by notional amount outstanding, making up roughly 85% of the total derivatives market, while FX derivatives and other asset classes represent around 10% and 5% respectively. In terms of daily turnover, however, FX trades dominate the OTC derivatives market in Mexico.[8] Together, FX and interest rate derivatives formed 87% of the total turnover of derivatives transactions reported to Banxico. The small size of the commodity and credit derivatives markets in Mexico is due to the limited use and historical risk aversion of market participants for such instruments, as well as the high degree of integration of Mexican and US OTC derivatives markets.

Figure 1: Average daily turnover of derivatives in Mexico (share of global markets)



*net-net basis, daily average in April

Source: Bank for International Settlements (BIS) *Triennial Central Bank Survey of Foreign Exchange and Over-the-counter (OTC) Derivatives Markets in 2019*.

Mexico's OTC derivatives market is relatively small from a global perspective. FX OTC derivatives denominated in MXN accounted for 1.7% of the global trading volume in April 2019 (see left-hand panel of Figure 1), while the volume of all FX OTC derivatives traded in Mexico was only 0.2% of global turnover. The global market share of OTC interest rate derivatives in terms of trading volume is even lower, both for those denominated in MXN (0.4%) and those traded in Mexico (less than 0.1%, see right-hand panel of Figure 1). While its global market share is small, Mexico has the largest OTC derivatives market in Latin America.[9]

[8] FX trades usually have a shorter maturity and thus do not lead to a predominance in notional amounts outstanding.

[9] See BIS *Triennial Central Bank Survey of Foreign Exchange and Over-the-counter (OTC) Derivatives Markets in 2019* (December 2019).

Mexico's derivatives market is predominantly traded over-the-counter: in 2018, non-centrally cleared OTC derivatives represented 72% of total volumes (see Figure 1 in Annex 2). The share of exchange-traded derivatives (ETD, i.e. those traded on MexDer, and on foreign venues or platforms) and centrally-cleared OTC derivatives has declined steadily since 2007 and only rebounded in 2016 when the mandatory platform trading of the 28-day interbank equilibrium interest rate (TIIE) swaps was introduced (see trade reporting and central clearing subsections). The decline in ETD volumes over the past 10 years coincides with a gradual increase in the volume of forwards and swaps (OTC derivative products) that have increasingly been the instruments traded in Mexico (84% of the total volume reported by Mexican banks and brokerage firms to Banxico in 2018, see Figure 2 in Annex 2).

Mexico's OTC derivatives market has a substantial cross-border component, with foreign banks being important players. The fact that foreign-owned banks account for more than 80% of the banking sector's total assets has been one of the drivers of cross-border activity. As a result, for the last five years about twice as many OTC transactions of Mexican financial entities have been with foreign counterparties rather than domestic.

An important component of Mexico's cross-border OTC derivatives market is bilateral interest rate swaps (IRS). For many counterparties, peso-related IRS are traded and cleared in the US (see Figure 3 in Annex 2). The volume of such trades in the US market is substantial: for example, Mexican IRS lead the daily notional volume of Latin American OTC IRS settled on the Chicago Mercantile Exchange (CME). In mid-2019, the outstanding notional amount of interest rate derivatives traded in the US with at least one Mexican counterparty was over USD 100 billion, with 97% of these positions held by the top 15 counterparties. FX derivatives traded in the US, with one Mexican counterparty, had a notional amount outstanding of over USD 25 billion in mid-2019.

Another substantial component of Mexico's cross-border OTC derivatives market is foreign currency OTC derivatives involving the Mexican peso. The MXN market is the largest and most liquid of the Latin American FX markets.[10]

[10] According to BIS statistics, FX OTC derivatives based on the Mexican peso have by far the highest daily average turnover of Latin American currencies. See *Foreign exchange liquidity in the Americas* by the BIS CCA Consultative Group of Directors of Operations (BIS Papers No. 90, March 2017).

Steps taken and actions planned

The key steps undertaken to implement the G20 OTC derivatives reform commitments include:

- establishment of a legislative framework or other authority granting regulatory authorities' powers to impose mandatory requirements in relevant reform areas;
- adoption of public standards or requirements about when transactions should be reported to TRs and of public standards or criteria for determining when products should be centrally cleared or platform traded;
- imposition of mandatory minimum margin requirements and higher capital charges for NCCDs; and
- where necessary, providing for the establishment and regulation of the necessary infrastructure through which the mandatory obligations must be fulfilled, i.e. TRs, CCPs and trading platforms.

In some jurisdictions, authorities have also provided – as part of OTC derivatives reforms – for the regulation and oversight of OTC derivatives market participants.

Implementation status: Table 1 shows Mexico's progress between 2015 and 2019 in implementing OTC derivatives market reforms and compares its implementation status (as of end-September 2019) with that of other FSB jurisdictions in the Americas. Mexico has taken steps to implement clearing obligations, platform trading (earlier than some of its peers on the region), interim capital requirements and to consult on margin requirements for non-centrally cleared derivatives. Banxico has sought improvements in automated links and data quality control for Banxico TR's activity, and policies and procedures to ensure public transparency and access to OTC derivatives data.

Table 1: Implementation of OTC derivatives reforms, FSB jurisdictions in the Americas

		Trade Reporting	Central Clearing	Interim Capital	Final Capital	Margin	Platform Trading
Mexico end-Sep 2015	**MX**	**Blue**	**1**	**3**	**Not applicable**	**1**	**1**
Mexico end-Sep 2019	**MX**	**Blue**	**Blue**	**Blue**	**1**	**2**	**Blue**
Argentina	AR	Blue	1	Blue	Blue	1	3
Brazil	BR	Blue	Blue	Blue	Blue	Blue	1
Canada	CA	Blue	Blue	Blue	Blue	Blue	2
United States	US	Blue	Blue	3	2	Blue	Blue

Blue cells refer to comprehensive standards/requirements being in place with respect to over 90% of the transactions in the relevant jurisdiction for the reform indicated. 1 refers to the initial stage of implementation (only the legislative framework or another authority is in force or has been proposed in a public consultation). 2 for capital or margin requirements means that the legislative framework or other authority is in force and, with respect to at least some transactions, standards / requirements have been published for public consultation. 3 means that these have been adopted with respect to at least some transactions. The status of implementation of final capital requirements was not assessed in 2015 because the final standards (on measuring counterparty credit risk exposures and for capital requirements for bank exposures to CCPs) were due to be implemented only by 1 January 2017.

Source: FSB *OTC Derivatives Market Reforms: Tenth Progress Report on Implementation* (November 2015) and *OTC Derivatives Market Reforms: 2019 Progress Report on Implementation* (October 2019).

a. Legal and regulatory framework

Mexico does not have a specific law dedicated to regulating OTC derivatives markets. In the initial stages of the 2014 general financial system reform, consideration was given to the creation of a specific legal framework dedicated to derivatives. Due to various factors, including the complexity of the needed amendment and resource constraints, such a step was not undertaken. The 2016 FSAP noted that the absence of a high-level law specific to OTC derivatives could impair the enforcement by the CNBV of regulations in this area. After the FSAP, the Mexican authorities undertook several initiatives to enhance the rules and procedures that apply to OTC derivatives.

At present, the main regulations and laws governing OTC derivatives are:

- Circular 4/2012 issued by Banxico, governing derivative transactions entered into by banks, non-bank financial institutions, and certain government-owned entities;
- Tripartite Rules ("Rules that the derivatives contract market participants must adhere to"), which apply broadly to ETD;
- the General Rules for Insurance Companies issued by the National Insurance and Bonding Commission (CNSF) governing derivatives transactions entered by insurance companies;
- Circular 6/2013 issued by Banxico and other regulations issued by the National Commission for the System of Retirement Savings (CONSAR) governing derivatives transactions entered into by pension funds;[11]
- the Securities Market Law (LMV); and
- secondary regulation from the CNBV that applies to companies that manage systems to facilitate securities transactions, and electronic trading platforms that facilitate OTC derivatives transactions.[12]

Banxico's Circular 4/2012 remains a key source of detailed regulation on OTC derivatives trading. When MFAs jointly issue amendments to the Tripartite Rules, Banxico will typically seek corresponding amendments to its Circular 4/2012. Box 1 sets out in detail the roles and responsibilities of MFAs in the Mexican derivatives market.

[11] Regulation issued by CONSAR includes Circular 53-2 (Prudential rules applied when trading derivatives) and Circular 62-1 (Prudential rules on risk management).

[12] See *Disposiciones de carácter general aplicables a las sociedades que administran sistemas para facilitar operaciones con valores*.

Box 1: Roles of the MFAs in the Mexican derivatives market

Bank of Mexico (Banxico)

Banxico has a central role in Mexico's legal framework for OTC derivatives. Specifically, Banxico regulates and oversees:

- Mexican financial entities that trade OTC derivatives (regulating the terms, counterparties, underlying assets and margin requirements involved in derivatives transactions entered by market participants);
- regulated derivative markets (authorising firms to trade derivatives on their own account, recognising foreign trading platforms etc.);
- central clearing obligations (assessing methodologies to determine capital requirements and margin to be posted by clearing members to CCPs; recognising foreign CCPs; identifying derivative transactions that are considered as standardised etc.);
- clearing members of the Mexican derivatives CCP Asigna; and
- TRs (with authority to recognise foreign institutions that perform TR functions etc.).

In practice, Banxico oversees just one TR, which is operated from within Banxico (henceforth referred to as "Banxico TR"; see Box 2 for more information).

National Banking and Securities Commission (CNBV)

The CNBV supervises derivatives exchanges, central counterparties and their members as well as the activities of trading platforms. Additionally, the CNBV is responsible for issuing prudential regulation in order to preserve the liquidity, solvency and stability of derivatives dealers in agreement with Banxico and SHCP. The CNBV also grants recognition to foreign trading platforms.

The CNBV is empowered to suspend the activity of brokers, including electronic trading platforms, if their operations do not comply with the applicable provisions or due to disorderly market conditions. While the CNBV has broad supervisory authority over compliance and oversight of the securities markets, it does not have statutory authority to oversee the conduct of, or enforce sanctions on, all individual derivatives market participants.

Ministry of Finance and Public Credit (SHCP)

The SHCP is responsible for the design of policies in order to promote, regulate and supervise financial entities and activities, including for derivatives markets.

Cooperation and information sharing: MFAs have established procedures to collaborate and share OTC derivatives data. This critical inter-institutional coordination required by law is defined, among other regulations, in the 2014 Tripartite Rules, which set forth specific responsibilities and powers of each MFA and establish permanent communication and coordination between them when exercising these powers. The December 2017 Memorandum of Understanding (MoU) between CNBV and Banxico further specifies the information sharing mechanisms and the process for carrying out individual or joint on-site inspections at supervised financial entities. On the first aspect, the MoU creates a more formal structure for sharing data among authorities that already existed since 2000. For example, CNBV has daily direct access to Banxico TR's transaction-level data and CNBV is entitled to share with Banxico any information it receives from listed, non-financial entities regarding their outstanding derivatives positions. Moreover, all stakeholders, including MFAs and market participants, have access to Banxico's aggregate information directly through its public website.

b. Trade reporting

Reporting entities: Banks, brokerage firms, investment funds, general deposit warehouses and multiple purpose financial companies are required to report their trades to Banxico (see Box 2 on Banxico TR).[13]

Trade reporting to Banxico is not required for the following entities: (1) insurers; (2) non-financial entities (unless the counterparty to the transaction is required to report); and (3) pension funds. The exclusion of non-financial entities from trade reporting is a consequence of the regulatory perimeter of Banxico, which does not extend to non-financial entities. Publicly listed companies are, however, required to disclose their outstanding derivatives position on a quarterly basis. CNBV has powers to require these companies the submission of data on their OTC derivatives transactions, with the level of detail that CNBV determines as appropriate. Pension funds (which can only enter into certain derivatives transactions) must report details of their derivatives transactions daily to CONSAR,[14] which in turn shares this data with Banxico.

MFAs have observed that in practice, many non-financial companies active in OTC derivatives markets are either publicly listed or have counterparties (e.g. banks) that are required to report TR data to Banxico. The largest OTC derivatives transactions involving Mexican counterparties typically occur on interdealer electronic platforms and the trade data are sent to Banxico.

Many of the OTC derivatives that Mexican entities enter into, are transacted cross-border on electronic platforms. Banxico TR is able to capture trade data for a substantial volume of these transactions (for all trades where at least one of the parties is a reporting entity), as many of these trades are arranged through interdealer electronic platforms in Mexico, with transaction data reported to Banxico. This reporting occurs even if the OTC derivatives trade arranged on interdealer electronic platforms is ultimately cleared or settled offshore.

Reporting information and frequency: Financial institutions must provide daily reports to Banxico of transactions and maturities, while publicly listed non-financial institutions disclose their OTC derivatives outstanding positions quarterly.

Banxico's trade reporting requirements are quite comprehensive. Financial entities are required to report to Banxico TR 52 data elements characterising OTC derivatives transactions (on established data templates). Entities that report to a TR must have and report a Legal Entity Identifier (LEI)[15] to carry out derivatives transactions. They must also request and report the LEI of their financial counterparties (or non-financial counterparties with positions outstanding

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13 In October 2017 reporting obligations were introduced for multiple-purpose financial institutions (equivalent to non-bank financial intermediaries).

14 The derivatives exposure of pension funds in Mexico is small compared to that of Mexican banks. The aggregated notional outstanding amount of Mexican pension funds as of March 2019 is around MXN 2.8 trillion (USD 142 billion), compared to MXN 30.2 trillion (USD 1.6 trillion) in the case of banks. The average notional traded per pension fund is approximately MXN 460 billion (USD 24 billion) in contrast to the average notional amount traded per bank for the smallest participants, which is MXN 200 billion (USD 10 billion).

15 The LEI is a 20-character, alpha-numeric code, to uniquely identify legally distinct entities that engage in financial transactions globally.

of at least USD 12 million).[16] As of the end of March 2019, 62% of trades reported identify both parties with an LEI, which corresponds to 94% of total notional amount outstanding. Moreover, banks, brokerages, deposit warehouses, and regulated multi-purpose financial companies must have an up-to-date LEI. Furthermore, entities must report their activity for all five OTC derivatives asset classes; credit derivatives reporting was added to the reporting requirements in January 2019.

On the other hand, financial entities are only required to report mark-to-market values on a monthly basis. Moreover, currently Mexico's reporting regime does not capture intraday transactions, in contrast to the practice in some other FSB jurisdictions.[17]

MFAs have developed a plan to ensure timely adoption of the globally harmonised UTI in concert with the timelines for implementation set out by international standard-setting bodies.[18] Mexico reports that it is monitoring and analysing the progress in the UPI and CDE,[19] planning to progress according to implementation timelines published in October 2019.[20]

Trade repositories: Banxico TR is the only TR in Mexico (see Box 2). No foreign TR is currently recognised by the authorities, although Mexican regulation provides for the possibility.[21]

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[16] Introduced in December 2017 by Circular 25/2017 amending Circular 4/2012; in force since August 2018.

[17] For example, Brazil, Canada and the European Union require intraday reporting. In the OTC derivatives market, there can be substantial large intraday events. For example, it is estimated that the intraday margin calls in the interest rate swaps market in the days following the Brexit referendum on 24 June 2016 were five times greater than the previous 12-month daily average. See *Clearing risk in OTC derivatives markets: the CCP-bank nexus* by Faruqui et al (BIS Quarterly Review, December 2018).

[18] CPMI-IOSCO provided guidance to authorities about the harmonisation of the UTI (see CPMI and IOSCO *Technical Guidance: Harmonisation of the Unique Transaction Identifier* (2017)) and the FSB recommended implementation of the global UTI by end-2020 – see FSB *Governance arrangements for the unique transaction identifier (UTI): Conclusions and implementation plan* (2017). The primary purpose of UTI is to uniquely identify individual OTC derivatives transactions on reports to TRs. The UTI will help to ensure the consistent aggregation of these transactions by minimising the likelihood that the same transaction will be counted more than once.

[19] The primary purpose of a UPI is to identify the product that is the subject of a particular OTC derivatives transaction. A UPI would be assigned to each product type, and regulators would be able to aggregate OTC derivatives transactions by product (using the UPI Code) or by individual reference data elements that comprise the product (such as the underlying). Critical data elements (other than UTI and UPI) identify the other key characteristics of a derivatives transaction. See CPMI and IOSCO *Technical Guidance: Harmonisation of the Unique Product Identifier* (2017) and CPMI and IOSCO *Harmonisation of critical OTC derivatives data elements (other than UTI and UPI) - Technical guidance* (2018).

[20] In October 2019 the FSB and CPMI-IOSCO recommended implementation of the global UPI and CDE not later than the third quarter 2022. See FSB *Governance arrangements for the UPI: Conclusions, implementation plan and next steps to establish the International Governance Body* (2019) and CPMI and IOSCO *Governance arrangements for critical OTC derivatives data elements (other than UTI and UPI)* (2019).

[21] Banxico has powers to recognise foreign institutions to perform central repository functions if certain conditions are met. Such conditions include that (i) the foreign entity is subject to a regulatory framework equivalent to the Mexican one; (ii) Banxico or the CNBV have concluded a memorandum of understanding with their supervisory authorities; (iii) Banxico can obtain from such entities, or their supervisory authorities, the information reported (amendment to Circular 4/2012, April 2015). In addition, the regulatory framework allows CCPs to provide trade reporting services. In such cases, Banxico could allow reporting entities to delegate its reporting obligation to the CCP, provided that certain conditions are met.

Box 2: Banxico TR

Banxico TR is subject to the governance of Banxico's Governing Board, General Directorate of Financial Stability and Financial System Information Directorate (DISF).[22] It is an entity that is not an authorised TR but that is used by market participants to report OTC derivatives trade data (i.e. it provides so-called TR-like services).

While a TR-like entity run by the central bank is allowed by the G20 OTC derivatives reforms, the legal framework supports its independence, oversight and adequate funding to ensure an effective and accurate TR function. Banxico's DISF regulates the operation and decision making of the TR-like entity. This includes governance procedures to ensure performance, accountability, and competencies. Banxico also takes certain precautions to address potential conflict of interests, such as separating its TR operation from oversight. Moreover, the Internal Audit Unit, which carries out internal audits on Banxico TR operations, reports directly to the Board of Banxico,[23] and a member of the Board chairs the audit committee.

Consistent with the CPMI-IOSCO *Principles for Financial Market Infrastructures* (PFMI),[24] Banxico is preparing processes for a periodic self-assessment. This is part of a broader initiative where Banxico has, since November 2018, been revising the governance framework and set of procedures that underpin Banxico TR, with a focus on improving performance and processes associated with the principles set forth in the PFMI. Mexico expects to sequentially complete this update and implementation in policies and procedures by 2020.

Data quality programme at Banxico TR: Banxico runs the only TR in Mexico and has, from inception, focused heavily on the quality and comprehensiveness of the data it receives. Banxico has been collecting data on OTC derivatives transactions since 1998. As such, financial entities and the MFAs have long-standing experience in reporting and analysing data respectively, and the accuracy of data reporting has benefited from this long experience. Moreover, Banxico TR consults with stakeholders on any changes in reporting formats and procedures.

Banxico has worked on several initiatives to continuously improve data quality including, since 2017, a process to measure the quality of data originally sent, as well as the quality of responses to Banxico TR's specific inquiries on data. This initiative has led to a significant increase in data quality for various categories of reporting entities. Moreover, if a reporting entity makes an error, Banxico will, through its reporting interface, identify the error promptly and assess its importance. Banxico publishes its data quality scores on its website,[25] seeking to encourage improvements in data quality reporting through market transparency.

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[22] Banxico's Governing Board approves the strategic elements of the TR-like entity and the mechanisms of communication and accountability. The General Directorate of Financial Stability approves: a) structure, scope, and design of the internal government; b) the structure and scope of accountability; c) rules for the definition of responsibilities and assurance of competencies; and d) communication and accountability proposals to the governing board. The Financial System Information Directorate approves: a) the internal performance evaluation scheme; b) the distribution of responsibilities; c) proposals of communications mechanisms for accountability to be transmitted for final approval to the General Directorate of Financial Stability; and d) the structure, scope and design of the operational model of the TR-like entity.

[23] See Banxico's organisational structure.

[24] See CPMI-IOSCO *Principles for Financial Market Infrastructures* (April 2012).

[25] See Banxico *Derivatives data at Banco de Mexico: Its structure and Uses* (July 2015). The Banxico website includes links to embedded tables with more detail of OTC derivatives and other financial instruments. See,

Asigna reports centrally cleared derivatives transactions to Banxico TR and is working on an automated link, scheduled to go live before the end of Q1 2020, to help improve data quality and Banxico's timely use of OTC derivatives trade data for data analysis.

TR data transparency: Through Banxico's website, aggregated OTC derivatives data is published.[26] Banxico TR will be implementing a performance assessment and accountability framework to help to improve the quality of reported data. MFAs have engaged in a series of such efforts, continually reviewing the information provided. For example, Banxico is currently considering further enhancements, such as presenting more metrics on reporting, making its data more user-friendly, and having more specific sections on its website for derivatives.

Access to and use of TR data by domestic authorities: MFAs' access to and use of TR data appears consistent with international OTC derivatives reform requirements. There are no barriers to Mexican authorities accessing data held in Banxico TR[27] and Banxico's website provides for easy, direct access for the public to a broad range of aggregate data. For more detailed data, Banxico has encouraged data sharing among financial authorities and has worked, since 2014, to make data sharing part of the regulatory and supervisory framework.[28] For example, CNBV has daily direct access to all of Banxico TR's transaction-level data and other domestic authorities have the option to seek such access as well.

Banxico is using the derivatives transaction data extensively. For example, it uses such data for its regular publications[29] and for ad-hoc economic research projects.[30] CNBV uses TR data internally for the supervision of brokerage houses, MexDer, Asigna, clearing members, and trading platforms.[31] Moreover, OTC derivatives data is used for internal financial stability purposes, for example to support meetings of the Mexican Financial Stability Council or to monitor the evolution of potential vulnerabilities.[32]

Cross-border access to TR-held data: Mexico is able to share TR-held data cross-border through MoUs with foreign jurisdictions. In addition, as described above, a substantial amount of daily and monthly statistics on OTC derivatives is published on Banxico's website and is therefore accessible to foreign regulators.

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for example, *Derivatives turnover traded by domestic commercial and development banks in organized and OTC markets* (accessed October 2019).

26 See https://www.banxico.org.mx/IndicadoresGraficos/actions/contenidoPortal/mercadosFin/1/4?locale=en.

27 See FSB *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations* (2018).

28 See *Sharing information with financial authorities. The case of Banco de México* by Gaytán and Sánchez (ISI 2017 World Statistics Conference Paper).

29 See *Main indicators on OTC Interest Rate Swaps traded by domestic brokerage houses, commercial and development banks* by Banxico.

30 See, for example, *Quantification of systemic risk from overlapping portfolios in the financial system* by Poledna et al, arXiv Cornell University Research Paper (January 2018).

31 In addition, CNBV uses TR data for carrying out market behavioural analysis and can use it to identify non-compliance of market participants towards the current regulation on derivatives.

32 To monitor financial stability risks Banxico has specifically developed in-house a software to compute daily mark-to-market derivatives values under a variety of stress scenarios.

Legal barriers to full reporting of TR data: The 2018 FSB report, *Trade Reporting Legal Barriers*, identified Mexico as having a blocking statute[33] as a legal barrier to full reporting of TR data.[34] The report stated that the barrier was not curable by consent due to legal provisions related to secrecy obligations. To share information, Asigna, clearing members and MexDer would have to first report to the CNBV the type of TR data to be shared. CNBV would then be empowered to review this information before it is shared. As no foreign TRs have been recognised, all foreign reporting is subject to this reporting barrier.

Following that report, the MFAs developed a plan to address barriers to full reporting. The SHCP, CNBV and Banxico are working jointly to amend Mexico's Tripartite Rules in order to allow Asigna and MexDer to share information (with the client's consent) with entities that provide trade data registration and repository services recognised by Banxico and supervisory and regulatory entities of other jurisdictions. When the Tripartite Rules are amended for ETD, Banxico will modify Circular 4/2012 in order to replicate this scheme for OTC derivatives. However, if the revised Circular will still foresee that CNBV can review the type of TR data to be shared outside of Mexico, such requirement of local authority's consent can in practice operate as a blocking statute and thus be still seen as a barrier to cross-border reporting. In addition, as long as there is customer consent, there must be no restrictions on the ability of non-Mexican counterparties to derivatives with Mexican counterparties to provide the name of the latter to non-Mexican TRs along with the related trade details. This will fulfil both the recommendations in the 2018 FSB report, *Trade Reporting Legal Barriers*, and also the foreign entities' derivatives reporting requirements in their home jurisdictions. The MFAs are taking steps to remove such barriers to the sharing of data on Mexican OTC derivatives market on a cross-border basis.[35]

c. Central clearing

Scope of mandatory central clearing: Circular 4/2012 mandates banks and brokerage firms to clear standardised transactions with domestic or foreign banks, brokerage firms and institutional investors. As of November 2016, the requirements apply also to those entities' transactions with foreign financial institutions and institutional investors. However, institutions with less than USD 3 billion in notional amount outstanding in standardised derivative contracts for three consecutive months are exempted from the requirement. Additionally, inter-affiliate trades between banks and brokerage firms may also be exempt under certain conditions.[36]

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33 A blocking statue is a law or other official requirements regarding clients' confidentiality and data protection that hampers reporting complete trade data.

34 See *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations* by the FSB (November 2018).

35 See *Resolución por la que se Modifican las Reglas a las que habrán de sujetarse los participantes del Mercado de Derivados*.

36 Intragroup transactions are exempted from mandatory clearing if the entity can demonstrate that both counterparties 1) are subject to centralised evaluation, measurement and control procedures; 2) financial statements are included on the same consolidated financial statement, and; 3) in the event the affiliate counterparty is located in a foreign jurisdiction, Banxico has determined equivalent trade and clearing requirements apply.

The clearing obligation can be fulfilled either at the domestic derivatives CCP Asigna (see Box 3), or with two foreign CCPs recognised in Mexico: CME Clearing and LCH Limited.[37] Four Mexican financial entities operate through trusts as clearing members of Asigna, whereas Mexican banks and brokerage firms usually are indirect members of the two foreign CCPs.

Banxico considered several factors when determining which products should be subject to mandatory clearing requirements, including the degree to which the contract terms and conditions are standardised, its liquidity, the number of entities that use the contract, whether there is a CCP clearing it, and systemic risks implications. The only derivatives contract currently identified as standardised and thus subject to mandatory central clearing is the TIIE swap in Mexican pesos with tenors between 56 days and 30 years.[38] As Mexico's OTC derivatives markets evolve, the authorities will continue to review whether additional OTC derivatives contracts can be designated for mandatory central clearing. Asigna is currently working on a project to clear FX swaps, so these could also be assessed as potential standardised products in the future.

Box 3: Asigna

Currently, the only CCP in Mexico is Asigna, Compensación y Liquidación. Asigna and MexDer are part of a business group that includes a public company, Bolsa Mexicana de Valores (one of the Mexican Stock Exchanges). Through international agreements, international counterparties are able to access and trade derivatives on MexDer or reach Asigna for clearing services through international electronic platforms.

Any entity can become a clearing member in Asigna through the creation of a dedicated trust managed by a bank or a brokerage firm.

Asigna's clearing members currently encompass four financial institutions in Mexico: Banco Santander, BBVA, Grupo Bursátil Mexicano (GBM), and Scotiabank.[39] The proprietary derivatives business of these clearing members is responsible for much of the cleared volume on Asigna. They also clear transactions in Asigna for their clients. The CCP itself has the power to suspend market participant's trading in MexDer or in authorised electronic platforms when their transactions are not carried out in accordance with the applicable provisions. Its suspension rules must be approved by authorities, which ensures that a suspension of trading is in line with the authorities' view.

Asigna's clearing members must be approved by Asigna itself and, if they intend to clear listed contracts, by MexDer. This approval may be overruled by SHCP, if deemed necessary. Asigna must have policies and procedures in place to measure, manage, and control risk. This includes stress testing and methods to determine circumstances under which Asigna would have a shortage of resources (stress-testing scenarios).

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[37] Foreign CCPs must seek permission from Banxico to operate in Mexico, and must already be authorised as a CCP in a foreign jurisdiction and subject to an equivalent regulatory framework which aligns with the PFMIs. In addition, Banxico or CNBV must sign an MoU with the authorities that regulate the foreign CCP (Circular 4/2012).

[38] The 28-day interbank rate is published daily by Banxico and is widely used by banks. In 2010, the BMV Group signed an agreement with the CME, putting Mexican ETD within reach of international investors through the CME Globex platform. While this order routing agreement was dissolved in 2017, international entities routinely trade future contracts on TIIE swaps on the MexDer through various means.

[39] Asigna had in the recent past six direct clearing members.

In terms of risk management, clearing members contribute to Asigna's default fund, with the amount based on the credit risk exposure of their outstanding positions and of its clients. The CCP also sets minimum capital requirements for clearing members, which are based on the riskiness of the members' positions. Asigna manages liquidity by investing cash from margin and default accounts in the overnight market once settlement obligations are met. Other features of liquidity management include Asigna's use of lines of credit and position limits on contracts with physical delivery. Asigna is implementing a new margin model to enhance its risk management framework, which is expected to go live by the second half of 2020.

Asigna is required to report centrally cleared derivatives transactions (both exchange-traded and OTC) to Banxico. Asigna is automating and improving (in terms of accuracy and depth of information)[40] the reporting of data to Banxico TR. The new reporting channel is scheduled to go live by the end of 2019, and it is expected that Asigna would start reporting its trade data under this channel by Q1 2020.

Segregation of margin and client positions is governed by the Tripartite Rules, which differentiate clearing member's proprietary positions and third-party positions. Third-party clearing members' segregate accounts at a client portfolio level. Omnibus and global accounts are also available and are margined on a gross basis and net basis respectively. Asigna currently has proprietary positions for three of its four clearing members, approximately 200 individual accounts, four omnibus accounts, and one global account.

Clearing ratios: Approximately 16% of outstanding derivatives were centrally cleared in March 2019 (MXN 3.6 billion out of 23 billion, see Table 2). However, the ratio becomes 60% when cleared transactions are compared to outstanding standardised derivatives only (i.e. out of MXN 6 billion). This reflects the fact that there remain large notional amounts outstanding of OTC derivatives transactions that were carried out before the central clearing requirement entered into force, and these transactions have long maturity periods (up to 30 years). Another factor for the current level of the clearing ratio in Mexico is the exemption of small banks and brokerage firms (i.e. the USD 3 billion notional threshold) and, subject to approval, the exemption applicable to standardised contracts carried out with related entities.

Table 2: Clearing of Mexican interest rate derivatives transactions

Outstanding notional amounts (MXN billion)	**June 2018**	**March 2019**
Interest rate derivatives transactions	21.026	22.971
Standardised derivatives transactions	12.113	13.743
of which:		
centrally cleared	7.191	7,734
non-centrally cleared	4.922	6.008
Estimated share of standardised transactions (i.e. transactions that can be centrally cleared because standardised, on the total interest rate transactions)	58%	60%

40 For OTC derivatives transactions, these trade reports from Asigna to Banxico TR-like do not yet distinguish between initial and variation margin.

Estimated share of centrally cleared standardised transactions (i.e. standardised transactions that have been centrally cleared on the total standardised transactions)	59%	56%
Estimated share of centrally cleared transactions (i.e. standardised transactions that have been centrally cleared on the total of standardised and non-standardised transactions)	34%	34%

Source: Banxico.

Clearing ratios of derivatives traded in the US and involving at least one Mexican counterparty are in line with domestic ratios for interest rate derivatives (58% of total notional amounts outstanding, as of the end of September 2019), whereas less than 1% of the total notional amounts outstanding was centrally cleared for FX contracts.[41]

d. Exchange and platform trading

Domestic exchange and trading platform mandate*:* Mexico was a relatively early adopter of OTC derivatives reforms for the use of trading platforms and the trading mandate. Approximately five years ago, Mexico began an effort to encourage some OTC derivatives transactions to be traded on exchanges or electronic platforms (see Table 1). Mexico's April 2016 trading mandate for the MXN interest rate swap was one of the first trading mandates imposed by FSB members.[42]

Mexico requires platform trading, as well as central clearing, for certain OTC derivatives transactions that were deemed "standard" derivatives under Mexican regulation. Banxico deemed in 2016 the TIIE IRS to be a "standard" derivative contract, meaning that it must be traded on an exchange or platform and centrally cleared, subject to appropriate exceptions for lower-volume trading and, with approval, for intra-group trades.

Derivatives based on the TIIE benchmark are both traded on the MexDer as ETD, as well as on foreign exchanges and electronic trading platforms, in both exchange-traded and OTC derivatives transactions, in substantial volume.[43]

Cross-border platforms for OTC derivatives trading: Many of the OTC derivatives traded between Mexican and foreign counterparties are arranged on interdealer platforms in Mexico that, without ever acting as a counterparty, arrange for access to OTC as well as ETD transactions. Under Mexican law, CNBV has the authority to recognise foreign trading platforms.[44] In particular, the Mexican and US OTC derivatives markets for IRS and FX are

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41 This is not unexpected, given the often tailored nature of FX derivatives contracts and the liquidity of centrally cleared interest rate derivatives involving the Mexico peso.

42 Mexico joined Japan and the US as the three FSB jurisdictions at that time with determinations in force for specific products to be executed on organised trading platforms. See the FSB's *OTC Derivatives Reforms: Eleventh Progress Report on Implementation* (August 2016).

43 To date, no other OTC derivative has met the requirements, including liquidity, to be considered a standardised derivatives transaction. See Circular 4/2012, Annex 2.

44 While CNBV can recognise electronic trading platforms, it is Banxico which has the powers under Circular 4/2012, Rule 12.1, to recognise foreign TRs. To date, Banxico has not recognised any foreign TRs. Banxico

highly integrated and many Mexican banks and brokerage firms conduct cross-border OTC derivatives trades through these platforms. In addition to Asigna, Mexican counterparties reach other CCPs (such as CME Clearing and LCH Limited) through those electronic platforms, trading in both ETD as well as some cleared OTC derivatives.

e. Margin, capital requirements and other risk mitigation measures for NCCDs

Margin requirements for NCCDs: There are currently no requirements for the exchange of margin in NCCDs based on the framework of BCBS-IOSCO.[45] However, Banxico has been working on a project to introduce margin requirements for financial institutions (credit institutions, brokerage firms and investment funds) that is expected to be aligned with the international standards.

As proposed in a public consultation in 2019Q2, Banxico would require financial institutions to exchange initial and variation margin for the NCCDs for which they are counterparties.[46] It would establish margin exchange obligations for entities for which the notional amount outstanding of derivative positions exceeds 25 billion UDIs (around USD 8 billion) following a timetable similar to the one proposed by BCBS-IOSCO.[47] The draft also includes an additional obligation for entities with derivative positions in excess of 2 billion UDIs (around USD 650 million) to periodically assess the possibility of exchanging margins with their counterparties and to justify their decision if they choose not to do so.

In line with international standards, exemptions to margin requirements are foreseen for contracts with the Mexican Federal Government, Banxico, the Institute for the Protection of Bank Savings, some international organisations as well as governments and central banks from other jurisdictions, provided they have an acceptable credit rating. The margin exchange framework also exempts intragroup transactions under certain conditions.

The margin requirements would apply to all NCCDs, with the exception of some physically settled FX derivatives, as considered by international standards. A methodology has also been agreed by market participants, on valuation of interest rate derivatives based on the type of collateral used.

The proposal requests the exchange of two-way initial margin on a gross basis. Margin collected must be segregated in such a way as to ensure that it can be promptly available to the posting counterparty in the event of default of the other counterparty. Also, the margin posted must be protected against the possible bankruptcy of the entity which keeps it. The proposal considers both the use of the standardised model described in the BCBS-IOSCO framework

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does receive OTC derivatives trades data arranged on interdealer platforms between Mexican banks or brokerage firms and foreign counterparties.

45 See *Margin requirements for non-centrally cleared derivatives*, (BCBS-IOSCO, March 2015), followed by time extensions on implementation (July 2019). These margin requirements are part of a broader G20 reform framework for international convergence of such standards. See *Basel III: International Convergence of Capital Measurement and Capital Standards: A Revised Framework* and *Basel III: Finalising post-crisis reforms*.

46 See https://www.banxico.org.mx/ConsultaRegulacionWeb/downloadFile?fileId={8B55F6F6-7663-25B8-7BE7-A0F5C5BD364A}.

47 Banxico's consultation paper preceded the extension on implementation of margin requirements that was granted by the BCBS-IOSCO in July 2019.

and the use of internal models (subject to the approval of Banxico). The initial margin should at least cover a single tail 99% confidence level over a time horizon of 10 days based on a series of historical data that include stress periods, in particular, the 24 months' period between 2008 and 2009.

Higher capital requirements for NCCDs: In accordance with the Mexican regulatory framework, higher capital requirements are applied to non-centrally cleared derivatives by requiring a Credit Valuation Adjustment (CVA) risk charge. This requirement only applies to transactions performed by banks with any counterparty, with the sole exception of derivatives traded with Banxico.

The CNBV is working to implement the final capital requirements – comprising the final standard on measuring counterparty credit risk exposures (SA-CCR) and the final standard for capital requirements for bank exposures to CCPs – which were due to be implemented by 1 January 2017.[48] Mexico expects that the final rules will be published and in force by the first half of 2020. This is particularly important for derivatives, as it provides for improved netting benefit and recognition of margin for both centrally cleared and non-centrally cleared transactions.

3. Conclusions and recommendations

The Mexican authorities have made good overall progress in their implementation of OTC derivatives reforms. Mexico has implemented comprehensive requirements for trade reporting, central clearing and platform trading, with a strong focus on quality, public transparency, and analysis of TR data. The authorities have advanced these reforms in a thoughtful, collaborative, and proactive manner, and state that they are committed to further progress on these reforms with the same cooperation and information-sharing arrangements among each other.

Notwithstanding these achievements, as is the case in other countries, further steps can be taken in this area. These include: completing implementation of remaining OTC derivatives reforms on a timely basis; expanding CNBV authority for aspects of the supervision and enforcement of conduct of market participants; and expanding the scope and sharing of TR data. These steps should be supported by efforts to ensure that MFAs – particularly the CNBV – have adequate resources and powers to fulfil current (and potentially expanded) OTC derivatives-related responsibilities.

***Completing implementation of remaining OTC derivatives reforms on a timely basis*:** As previously noted, margin and final capital requirements for NCCDs are still pending. Banxico should consider feedback to the recent public consultation on margin requirements and take action to ensure that the final rules are implemented on a timely basis and are aligned with

48 In March 2014, the BCBS published the final standard on SA-CCR, with an associated recommended implementation deadline of 1 January 2017 (BCBS, *The standardised approach for measuring counterparty credit risk exposures*). SA-CCR replaces both the Current Exposure Method (CEM) and the Standardised Method (SM) in the risk-based capital framework, while the IMM (Internal Model Method) shortcut method has also been eliminated from the framework. The final standard for bank exposures to CCPs was published in April 2014, with a recommended implementation date of 1 January 2017 (BCBS, *Capital requirements for bank exposures to central counterparties*).

international standards, particularly in two areas. First, by applying activity thresholds to exempt from margin requirements at the group rather than at the entity level, thereby avoiding discretionary selection strategies to circumvent obligations. Second, as the MFAs seek to extend in the future margin requirements to pension funds, they should also do so for insurance companies[49] and non-financial entities that may (at some future point) undertake significant derivatives activity and pose systemic risks, subject to appropriate thresholds.[50] In addition to these steps, Banxico should also consider aligning the final rules with international best practices by requiring more frequent recalculation of initial margin amounts, since recalculating only every 10 days (even when the portfolio composition is unchanged) leads to the risk of exhausting margins if the counterparty defaults in the meantime, leaving the entity exposed to possible losses.[51]

Taking steps to consult and publish final capital requirements for NCCDs will strengthen incentives to centrally clear. This may then pave the way for CCPs to offer central clearing of OTC derivatives products other than the TIIE IRS. The MFAs are thus encouraged to reassess periodically possible new products for mandatory central clearing and electronic trading, if the necessary preconditions materialise.

Finally, MFAs should continue with their plan to adopt the globally harmonised UTI in concert with the timelines set out by standard-setting bodies, and also implement the UPI and CDE, now that the relevant details have been published by the FSB, CPMI and IOSCO. This will allow globally active market players to report information in the same way to domestic and foreign TRs, thereby assisting in the global aggregation of TR data.

- ***Recommendation 1*: The Mexican authorities should complete implementation of remaining OTC derivatives reforms on a timely basis by adopting: (a) final capital requirements for NCCDs; (b) margin requirements for NCCDs, including for pension funds, insurance companies and non-financial entities, subject to appropriate thresholds and exceptions; and (c) the globally harmonised UTI, UPI and CDE. The authorities should also continue to reassess periodically new products for mandatory clearing and electronic trading where appropriate.**

***Expanding CNBV authority for aspects of supervision and enforcement of conduct of market participants*:** Banxico has the power to issue sanctions upon financial entities, but only for the technical and operational aspects of derivatives transactions it regulates.[52] CNBV has supervisory and prudential oversight of some entities active in OTC derivatives markets, but has limited powers to create and enforce conduct rules specifically for market participants relating to OTC derivatives. While a publicly listed non-financial institution trading OTC

[49] OTC derivatives trading by insurance companies is practically non-existent in Mexico at the time. By law, insurance companies can trade derivatives only for hedging purposes.

[50] As mentioned previously, MFAs are working now on these details of margin reforms. For example, a current Mexican regulatory proposal sets margin requirements for trades between a financial entity and non-financial companies, when their portfolio exceeds certain thresholds.

[51] This would complement recalculations that would occur when the portfolio composition changes.

[52] This includes requirements to designate an area responsible for risk management and monitoring of risks, requirements to set a code of ethics applicable to personnel involved, as well as knowledge of it and of related policies and procedures, and restrictions on conflicts of interest.

derivatives is within the supervisory authority of the CNBV, the CNBV has limited abilities to sanction individual conduct or apply market manipulation or insider trading rules for some derivatives activities. In addition, CNBV does not have powers to issue and enforce conduct rules on OTC derivatives activity of other non-financial entities, or supervisory power over entities that only deal in derivatives and not securities.

Misconduct in wholesale markets, such as those for OTC derivatives, can undermine their effective operation and participants' and the public's confidence in using them for funding, investment, risk management or trading purposes.[53] Powers to issue and enforce comprehensive conduct rules on OTC derivatives activity, for both financial and non-financial entities, should reside with CNBV, consistent with best practice in other jurisdictions. Several other FSB jurisdictions impose conduct standards through their securities regulator (or integrated supervisory authority) such as prohibitions on fraud, misrepresentation, manipulation, and other abusive practices on derivative market intermediaries;[54] of these, nine jurisdictions include requirements tailored for OTC derivatives markets.[55] According to Mexican law, OTC derivatives are not considered securities. Therefore, CNBV is currently not legally empowered to issue conduct rules with respect to OTC derivatives transactions entered into by financial entities. Placing such powers within the CNBV may thus require legislative changes.

- ***Recommendation 2*: The Mexican authorities should expand CNBV's existing authority over, and implement rules for, aspects of supervision and enforcement of conduct of market participants of the entire Mexican OTC derivatives market.**

Expanding the scope and sharing of TR data: Notwithstanding the long-standing experience in reporting and using TR data in Mexico, and the high quality of such reporting, there is room to expand the scope of TR data reporting to ensure that the MFAs have a comprehensive view of the entire Mexican OTC derivatives market:

- First, while publicly-listed non-financial companies are required by CNBV to disclose their OTC derivatives outstanding positions on a quarterly basis, they are not as detailed as the daily transaction data that Banxico receives directly from financial entities. At a minimum, publicly-listed companies trading OTC derivatives above appropriate thresholds should be required to submit more granular (i.e. transaction-by-transaction) and frequent (best practice is daily) OTC derivatives transaction data to the CNBV.[56]
- Second, data on OTC derivatives from insurance companies and non-publicly listed, non-financial companies are not reported to Banxico[57] or another MFA when the

[53] See the *IOSCO Task Force Report on Wholesale Market Conduct* (June 2017).

[54] See the IOSCO *Review of Implementation Progress in Regulation of Derivative Market Intermediaries* (July 2015). The FSB jurisdictions include Australia, Brazil, France, Germany, Hong Kong, Italy, Japan, Korea, Netherlands, Canada (Ontario and Quebec), Singapore (MAS), Spain, Switzerland, UK and the US (CFTC).

[55] Germany, Hong Kong, Italy, Japan, Korea, Singapore (MAS), Spain, the UK FCA and US (CFTC).

[56] This recommendation should not be burdensome to implement with appropriate thresholds. If an entity is large and sophisticated enough to be doing OTC derivatives trades above a certain volume, it should be able to confirm that its counterparty is reporting the daily transaction data to Banxico or otherwise make provision to report it to the relevant regulatory authority.

[57] Some of these OTC derivatives transactions have, as a counterparty, a financial institution that reports the data to Banxico TR, but that is not always the case.

counterparty is not a reporting entity. The MFAs are of the view that non-financial entities that are not publicly listed, and thus do not report data to the Banxico TR, are relatively few and have a low trading volume. Non-financial entities are not permitted to act as derivatives dealers. Nonetheless, in the future, it is possible that the use of OTC derivatives by such companies will become more significant, which could pose a systemic risk or give rise to misconduct cases. The MFAs should therefore have access to all OTC derivatives transaction data involving Mexican counterparties, including these entities, subject to appropriate thresholds.

- Third, Banxico only collects position data from financial firms on a monthly basis. Although the G20 commitments do not set the frequency for receipt of position data, the lack of information for 30 days on the evolution of the mark-to-market value of large OTC derivatives transactions could limit systemic risk monitoring in fast-moving markets. The burden for market participants of reporting positions on a daily (rather than on a monthly) basis may be limited since information on daily valuation of the positions is often available for OTC derivatives transacted or settled offshore in those foreign jurisdictions that require reporting.[58]

With regard to the cross-border sharing of data, the requirement for CNBV and Banxico to review the types of data that CCPs, MexDer and reporting counterparties to transactions entered into with Mexican counterparties will share with foreign TRs recognised by MFAs establishes a de facto barrier to full cross-border reporting. The MFAs observe that Banxico TR itself does not have restrictions on information sharing with other MFAs, but amendments to Circular 4/2012 are required to cure the barrier issue with foreign TRs. The MFAs should remove all barriers to full reporting of Mexican TR data to foreign TRs, including any prohibition on the ability of non-Mexican entities to provide the name of Mexican derivatives counterparties to non-Mexican TRs along with the related trade details. Following the recommendation, the MFAs are taking steps to remove such barriers through revisions to the Tripartite Rules and Circular 4/2012.

- ***Recommendation 3*: The Mexican authorities should remove barriers to full reporting of Mexican TR data to foreign TRs. They should also expand the scope of TR data by: (a) considering enhancements in the frequency and granularity of TR data reporting from publicly listed companies; (b) requiring TR data reporting from insurers and non-financial entities that are non-listed (subject to thresholds, where appropriate); and (c) considering daily position data reporting requirements (subject to thresholds, where appropriate).**

[58] This is the case under the US law and, as already mentioned, the Mexican OTC derivatives trading is highly integrated with the US OTC derivatives market.

Annex 1: Mexico's implementation of G20 reforms (as of September 2019)

This FSB Jurisdictional Profile presents the status of implementation of G20 financial regulatory reforms, drawing on information from various sources. The tables below distinguish between priority areas that undergo more intensive monitoring and detailed reporting via progress reports and peer reviews, and other areas of reform whose monitoring is based on annual survey responses by FSB member jurisdictions. See here for further information.

IMPLEMENTATION STATUS OF REFORMS IN **PRIORITY AREAS**

Reform area	Basel III						Compen-sation	Over-the-counter (OTC) derivatives				Resolution				Non-bank financial intermediation	
	Risk-based capital	Liquidity Coverage Ratio	Requirements for systemically important banks	Large exposures framework	Leverage ratio	Net Stable Funding Ratio		Trade reporting	Central clearing	Platform trading	Margin	Minimum external TLAC requirement for G-SIBs	Transfer / bail-in / temporary stay powers for banks	Recovery and resolution planning for systemic banks	Transfer / bridge / run-off powers for insurers	Money market funds	Securi-tisation
Agreed phase in (completion) date	*2013 (2019)*	*2015 (2019)*	*2016 (2019)*	*2019*	*2018*	*2018*		*end-2012*	*end-2012*	*end-2012*	*2016 (2021)*	*2019/2025 (2022/2028)*					
Status	C	C						R								**	*

Legend	Final rule or framework implemented. Final rule published but not implemented, draft regulation published or framework being implemented. Draft regulation not published or no framework in place (dark red colour indicates that deadline has lapsed). Requirements reported as non-applicable. Basel III: C=Compliant, LC=Largely compliant, MNC=Materially non-compliant, NC=Non-compliant. △=Final rules implemented but certain elements are not finalised. OTC derivatives: R/F=Further action required to remove barriers to full trade reporting (R) or to access trade repository data by foreign authority (F). Non-bank financial intermediation: */**=Implementation is more advanced in one or more/all elements of at least one reform area (money market funds), or in one or more / all sectors of the market (securitisation). Further information on the legend.
Notes	G-SIBs=Global Systemically Important Banks. TLAC=Total Loss-Absorbing Capacity.
Source	FSB, *5th Annual Report on the Implementation and Effects of the G20 Financial Regulatory Reforms*, October 2019.

IMPLEMENTATION STATUS OF REFORMS IN **OTHER AREAS**

Reform area	**Hedge funds**			**Securitisation**			**Supervision**				**Macroprudential frameworks and tools**	
	Registration, appropriate disclosures and oversight of hedge funds	Establishment of international information sharing framework	Enhancing counterparty risk manage-ment	Strengthening of regulatory and capital framework for monolines	Strengthening supervisory requirements or best practices for investment in structured products	Enhanced disclosure of securitised products	Consistent, consolidated supervision and regulation of SIFIs	Establishing supervisory colleges and conducting risk assessments	Supervisory exchange of information and coordination	Strengthening resources and effective supervision	Establishing regulatory framework for macroprudential oversight	Enhancing system-wide monitoring and the use of macroprudential instruments
Status	REF*	REF	REF*	REF*	REF	REF	REF	N/A*	REF	REF	REF	REF

Reform area	**Credit rating agencies**		**Accounting standards**	**Risk management**		**Deposit insurance**	**Integrity and efficiency of financial markets**		**Financial consumer protection**
	Enhancing regulation and supervision of CRAs	Reducing the reliance on ratings	Consistent application of high-quality accounting standards	Enhancing guidance to strengthen banks' risk management practices	Enhanced risk disclosures by financial institutions		Enhancing market integrity and efficiency	Regulation and supervision of commodity markets	
Status	REF*	REF	IOG	REF	REF	REF	REF	N/A	REF

Legend	REF=Implementation reported as completed. IOG=Implementation reported as ongoing. ABN=Applicable but no action envisaged at the moment. N/A=Not applicable. *=collected in previous year(s) for all members.
Notes	The FSB has not undertaken an evaluation of survey responses to verify the status or assess the effectiveness of implementation. In a number of cases, the complexity of the reforms and the summarised nature of the responses does not allow for straightforward comparisons across jurisdictions or reform areas. In particular, reforms whose status in a particular area is reported as complete should not be interpreted to mean that no further policy steps (or follow-up supervisory work) are anticipated in that area. CRA = Credit Rating Agency, SIFI = Systemically important financial institution.
Source	FSB, *Jurisdictions' Responses to the 2019 IMN Survey*.

Other information	Latest IMF-World Bank FSAP: Nov 2016	Latest FSB Country Peer Review: 2010	Home jurisdiction of G-SIBs: no	Signatory of IOSCO MMoU: yes	/ IAIS MMoU: yes

The following table presents the actions undertaken and planned by the Mexican authorities in priority areas not covered in this peer review where implementation has not yet been completed. The actions mentioned below have not been evaluated as part of the peer review and are presented solely for purposes of transparency and completeness.

<table>
<tr><th>Reform area</th><th>Steps taken to date and actions planned (including timeframes)</th></tr>
<tr><td colspan="2">Basel III</td></tr>
<tr><td>Large exposures framework</td><td>During 2018 the priority for the MFAs was the issuance of the Financial Technology regulation (FinTech regulation). Due to this, the banking reforms were not promoted and the Large Exposure Framework (LEF) implementation was delayed. Nonetheless, the LEF is currently being developed. The final rule is expected to be published and in force in 2020. A proportional framework could be considered according to the financial government priority.

Banks currently have to comply with the domestic diversification framework, which is more stringent than Basel’s LEF due to the fact that the current definition of “control” is broader than the LEF’s new definition. Additionally, credit provisions are not allowed to reduce the exposure and credit mitigation techniques are not allowed.

The local framework sets up limits for bank’s counterparties under Common Risk. The Common Risk concept provided in Mexican regulation (CUB) is applicable to natural and legal persons and identifies other parties connected to them, encompassing a borrower and the following parties:
▪ Persons who economically depend on the borrower
▪ Persons who are controlled by the borrower
▪ Persons who control the borrower

According to these provisions, the following parties are deemed to represent common risk to a banking institution:
▪ Persons acting in concert due to specific family relationships;
▪ Persons not having control but being able to exercise “administrative” power upon a company; and
▪ Persons having control by being able to impose decisions on the general assembly or to nominate the majority of the Board of a company.

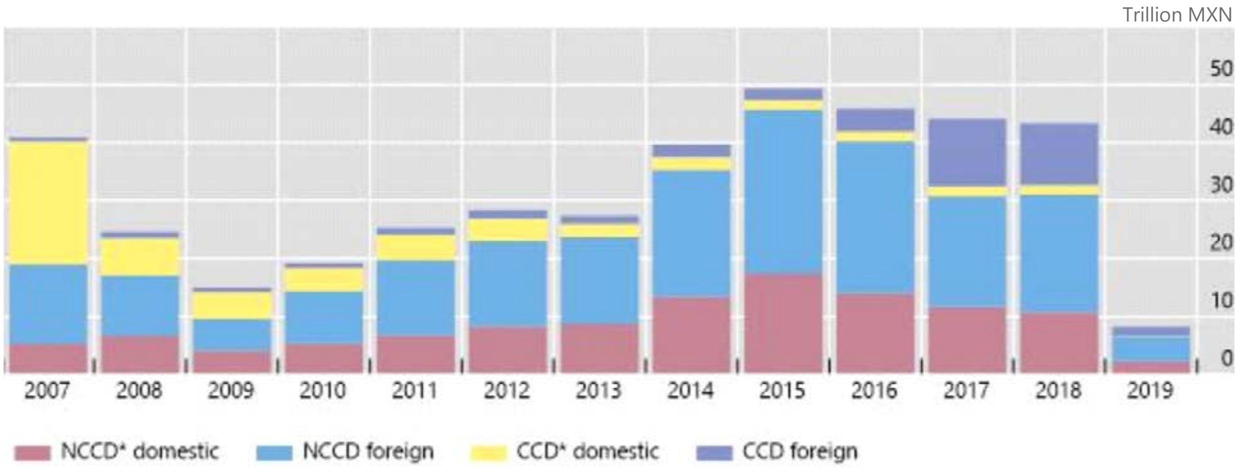
These provisions set forth prudential limits on large exposures to a single counterparty or a group of connected counterparties.</td></tr>
<tr><td>Net stable funding ratio</td><td>Amendments to the banking prudential regulation were postponed during 2018 to prioritise issuance of the FinTech regulatory framework. Consequently, the implementation of NSFR was delayed.</td></tr>
</table>

	While the draft regulation has not been published yet, banks have been reporting their NSFR, along with all necessary data to validate it, since January 2017, and are aware that the NSFR will be implemented soon. Currently, all banks are compliant with the 100% minimum NSFR requirement, even though it is not yet regulatory binding.
Resolution	
Transfer/bail-in/temporary stay powers for banks	Powers to transfer or sell assets and liabilities were implemented as of January 2014. However, in Mexico's FSSA (2016), the IMF and World Bank stated that the use of the Purchase and Assumption (P&A) tool is untested in the Mexican market and there were several impediments that may make the use of them impractical. Potential acquirers' inability to access relevant data before the bank's license revocation make the use of the tool in all but the smallest banks very difficult without the use of costly loss sharing agreements between Instituto para la Protección al Ahorro Bancario and a potential acquirer. Powers to write down and convert liabilities (bail-in) have not been implemented (some or all of the elements in the KA provision are not satisfied). In Mexico's FSSA (2016), the IMF and World Bank recommended to adopt legislation removing bail out options for shareholders and subordinated debt holders of systemic banks. Powers to impose temporary stay on early termination rights were implemented as of January 2014.
Transfer/bridge/run-off powers for insurers	The regulatory framework contemplates the resolution of insurers. This is established by law (Ley de Instituciones de Seguros y de Fianzas – Insurance and Surety Institutions Law – LISF) and by secondary regulation (Circular Única de Seguros y Fianzas – CUSF) and applies to all insurance companies. Nevertheless, regarding Global Systemically Important Insurers (G-SIIs), those are not particularly included in Mexico's resolution regulation, because there are no insurers or groups qualified as G-SIIs.
Non-bank financial intermediation	
Money-market funds – measures for valuation, liquidity management and (where applicable) stable net asset value	Money market funds are investments funds classified as "Fondos de inversión de Mercado de Dinero" or "MMFs" according to Annex 1 of the "Disposiciones de carácter general aplicables a los fondos de inversión y a las personas que les prestan servicios" (prudential regulation). Like any investment fund, MMFs must comply with their investment regime and are subject to prudential regulation, like liquidity risk management, prudential tools, and valuation standards. MMFs are subject to the supervision of the CNBV.

	In terms of the implementation of the IOSCO recommendations concerning the valuation of MMF's, Mexico complies with them and the applicable regulatory measures are full in force. As for the recommendations for liquidity management, no regulatory changes have been made in relation to liquidity risk management of investment funds. Nonetheless, fund managers are obliged, among other duties, to develop systems that allow them to estimate potential losses under different scenarios (extreme cases included) due to differences between the assets under management marketability and the shareholder redemption patterns (other commitments included), as well as for the unexpected sale of asset portfolio at an unusual discount, in order to comply with immediate obligations. Finally, the Mexican regulatory framework does not consider any type of MMFs that offer a stable net asset value (NAV) as all MMFs in Mexico are subject to variable NAV.
Securitisation – measures for incentive alignment and disclosure requirements	From a disclosure perspective, the rules applicable to Issuers would require an amendment to standardise and update the disclosure requirements related to securitisations. The criteria for identifying simple, transparent and comparable securitisations (Criteria STC) issued by BCBS-IOSCO in July 2015 will be considered for the updating of the disclosure framework for these instruments, particularly the regulatory formats, which will also need to be categorised by type of portfolio (mortgages, real state, commercial loans, leasing, among others). Amendments expected to be considered in the updating project include: ▪ standardised disclosure of payment evolution and delinquency rates; ▪ disclosure of credit quality of tranches and payment priority; ▪ adoption of a regulatory methodology to determine and report expected portfolio losses.

Annex 2: Additional charts on Mexico's derivatives markets

Figure 1: Volumes of derivatives transactions by clearing type

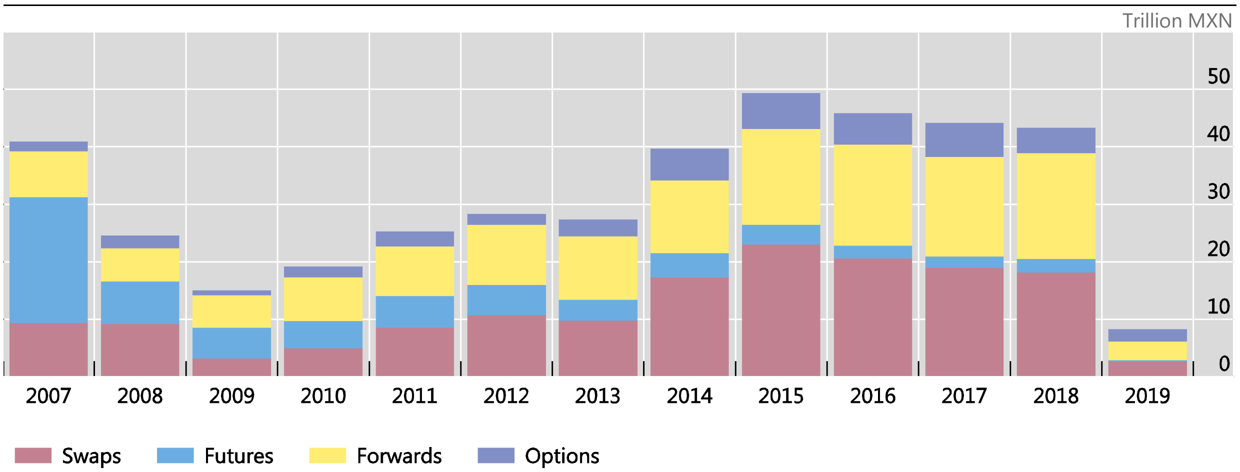


*NCCD=Non-centrally cleared; CCD=centrally cleared.

NCCD foreign includes transactions of Mexican financial entities with foreign counterparties; NCCD domestic includes transactions between two Mexican financial entities. 2019 volumes include only the first two months of the year.

Source: https://www.banxico.org.mx/IndicadoresGraficos/actions/contenidoPortal/mercadosFin/1/4?locale=en.

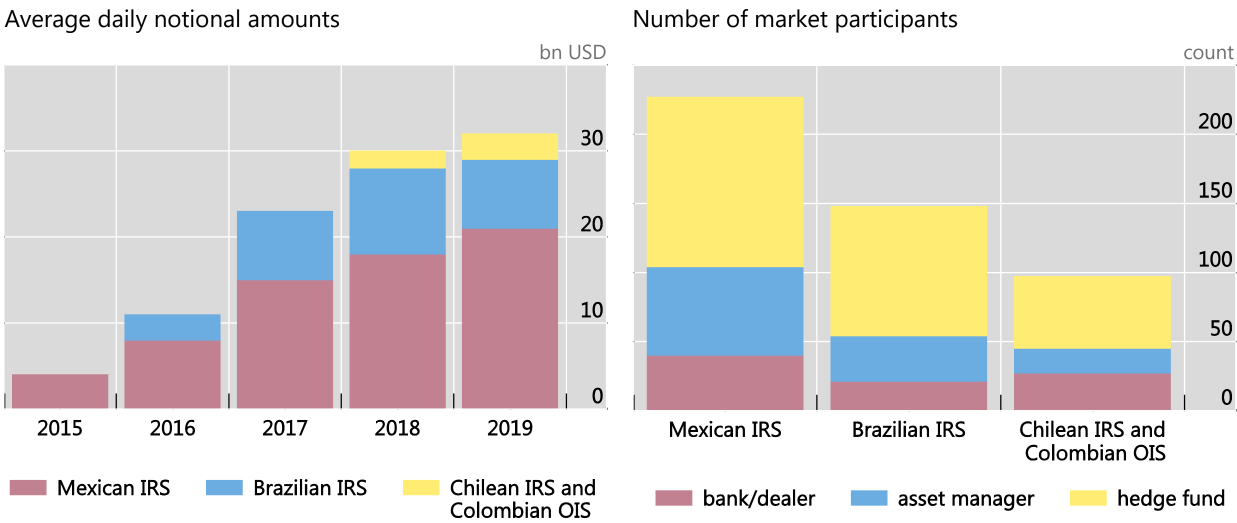
Figure 2: Volumes of derivatives transactions, by instrument type



2019 volumes include only the first two months of the year.

Source: https://www.banxico.org.mx/IndicadoresGraficos/actions/contenidoPortal/mercadosFin/1/4?locale=en .

Figure 3: CME Voluntary Clearing: Mexican IRS compared to other Latin American Swaps



Source: https://www.cmegroup.com/trading/otc/latin-american-swap-clearing.html as accessed August 2019.