Financial Stability Report – Second Semester 2021

December 8, 2021

BANCO DE MÉXICO®

Introduction

- During the period analyzed in this *Report*, the Mexican economy continued to be immersed in **an economic and financial environment still affected by the direct and indirect impact of the pandemic and new variants of the virus**.

- The broad Mexican financial system, and commercial banks in particular, maintain a solid and resilient position, with capital and liquidity levels above regulatory minima.

- Although **certain risks and vulnerabilities increased as a result of the health contingency** and remain at levels above those previously observed, **others have diminished**.

- **Credit lending has not recovered in the same magnitude as economic activity, which reflects caution by both potential borrowers and credit suppliers.**

- The Financial Stability Report describes:

  ✓ **The current conditions of the financial system.**

  ✓ **The evolution of the most relevant risks and vulnerabilities.**

  ✓ The **measures implemented, and extended,** to **promote an orderly evolution of financial markets**, or which **concluded** according to the authorities' announcements.

Information that has been published by Banco de México.

Contents

Information that has been published by Banco de México.

① Global economic growth

During the second and third quarters of 2021, global economic activity continued recovering, albeit at a slower rate and heterogeneously across countries. In this environment, forecasts for world economic growth were revised marginally downwards for 2021 and remained unchanged for 2022, although uncertainty persists.

GDP growth [1]
Quarterly % change, s. a.
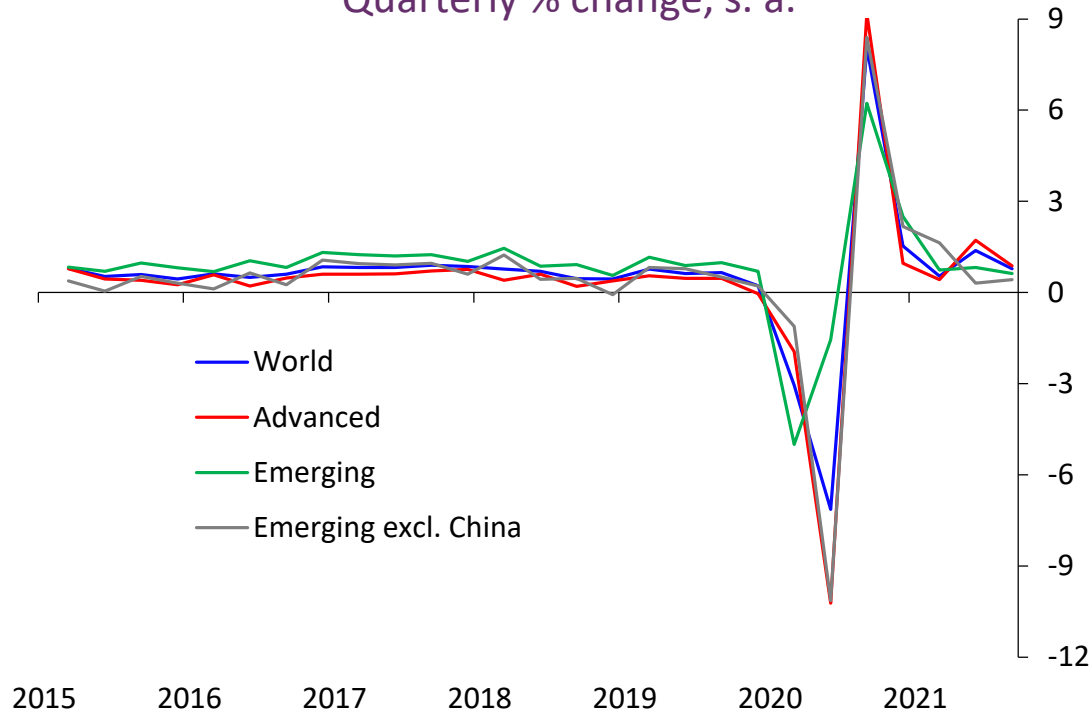
Data as of Q3 2021.
Source: Banco de México with data from Haver Analytics and J.P. Morgan.
s. a. / Seasonally adjusted data.
1/ The sample of countries used for the estimate represents 79% of world GDP measured by the purchasing power parity. Forecasts are used for some countries in the sample in Q3.

Global GDP growth forecasts
Percent

	2020	WEO October 2021		Change from July 2021	
		2021	2022	2021	2022
World	**-3.1**	**5.9**	**4.9**	**-0.1**	**0.0**
Advanced	**-4.5**	**5.2**	**4.5**	**-0.4**	**0.1**
United States	-3.4	6.0	5.2	-1.0	0.3
Euro area	-6.3	5.0	4.3	0.4	0.0
Japan	-4.6	2.4	3.2	-0.4	0.2
United Kingdom	-9.8	6.8	5.0	-0.2	0.2
Emerging	**-2.1**	**6.4**	**5.1**	**0.1**	**-0.1**
Excl. China	-4.1	5.6	4.9	0.2	0.0
Mexico	**-8.3**	**6.2**	**4.0**	**-0.1**	**-0.2**
China	2.3	8.0	5.6	-0.1	-0.1
India	-7.3	9.5	8.5	0.0	0.0
Brazil	-4.1	5.2	1.5	-0.1	-0.4

Data as of October 2021.
Source: IMF, World Economic Outlook, July and October 2021.

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② International financial markets

At the beginning of S2-2021, international financial markets have overall performed positively, albeit with a surge in volatility and lower risk appetite during September, which intensified starting from mid-November as a result of the emergence of the new SARS-CoV-2 variant and the persistence of inflationary pressures.

Stock market and FX indices' performance
Index 01-Jan-2019 = 100 [1]

Legend:
- S&P 500
- MSCI emerging economies
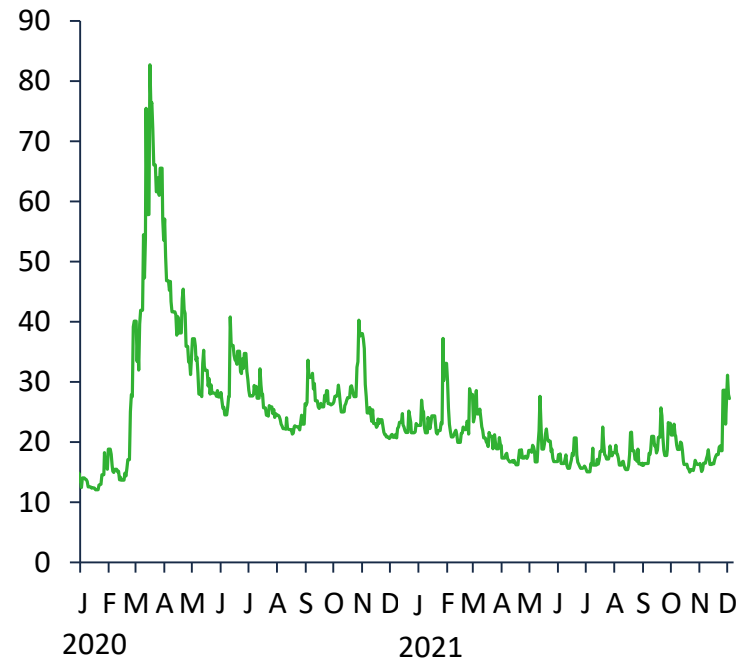- DXY Index
- Emerging economies FX Index
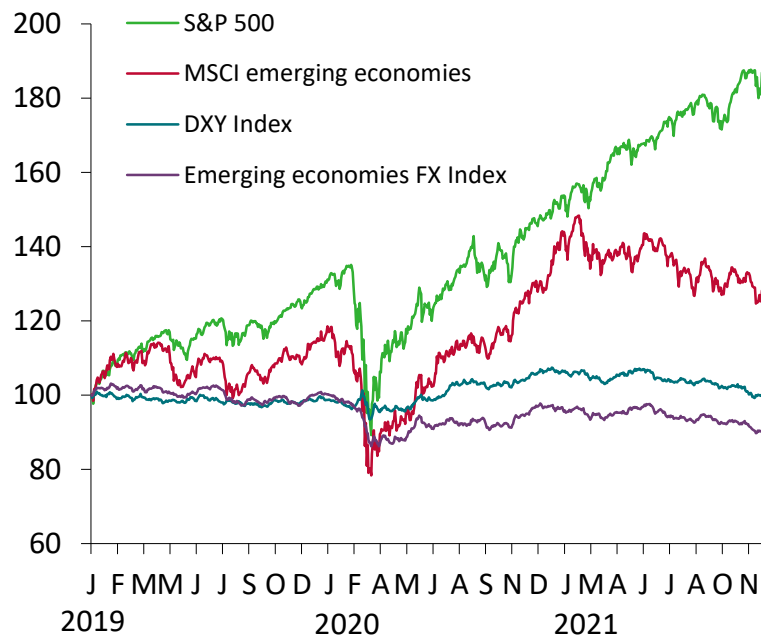
Data as of December 2021.
Source: Banco de México with data from Bloomberg.
1/ The emerging economies' FX index includes the following countries: Brazil, Chile, Colombia, Philippines, Hungary, India, Malaysia, Mexico, Peru, Russia, and South Africa.
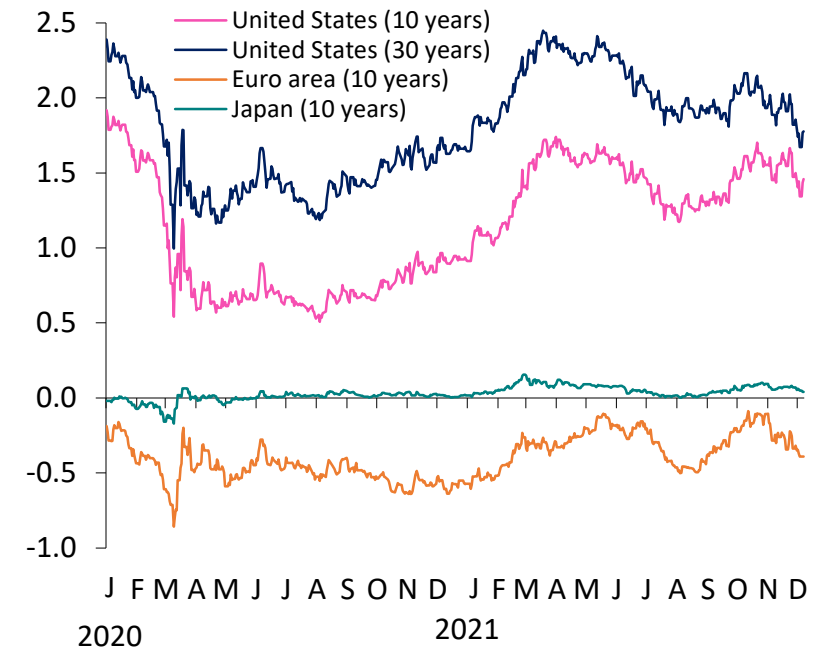
The VIX Index [1]
Percent

Data as of December 2021.
Source: Bloomberg.
1/ The VIX index is a weighted indicator that measures implied volatility in the options market for S&P 500.
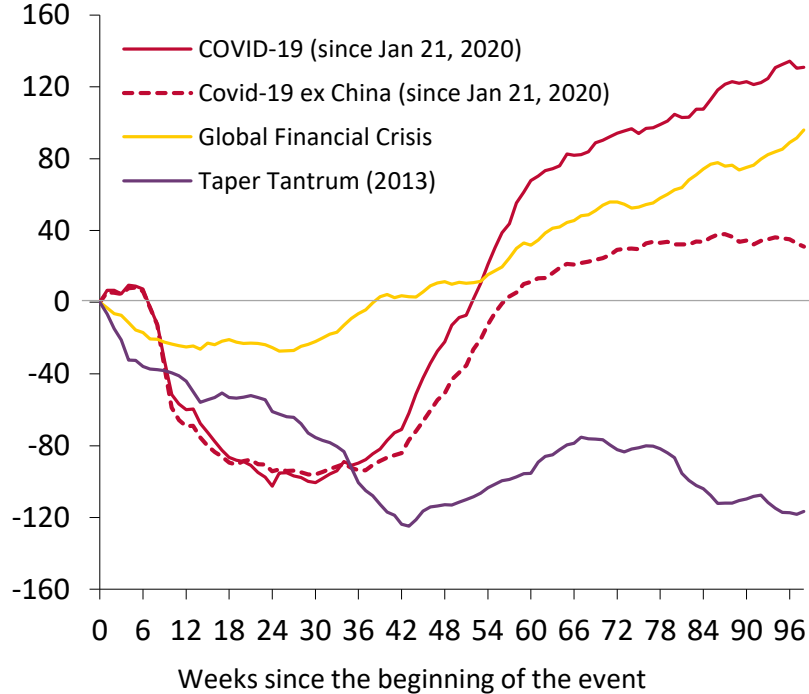
Government bonds' interest rates
Percent

Legend:
- United States (10 years)
- United States (30 years)
- Euro area (10 years)
- Japan (10 years)

Data as of December 2021.
Source: Bloomberg.

Information that has been published by Banco de México.

During the analyzed period, capital flows to equity assets in emerging economies were moderate. Similarly, their long-term interest rates were affected by global financial conditions, registering increases while their currencies depreciated.

Cumulative flow of funds to emerging market economies after selected events (fixed income and equity)
### Billion USD

COVID-19 (since Jan 21, 2020)
Covid-19 ex China (since Jan 21, 2020)
Global Financial Crisis
Taper Tantrum (2013)

Weeks since the beginning of the event

Data as of December 2021.
Source: Banco de México with data from EPFR.

Nominal exchange rates against the USD
Index 01-Jan-2019=100

Brazil
Chile
Colombia
South Africa
Mexico
Peru

Depreciation
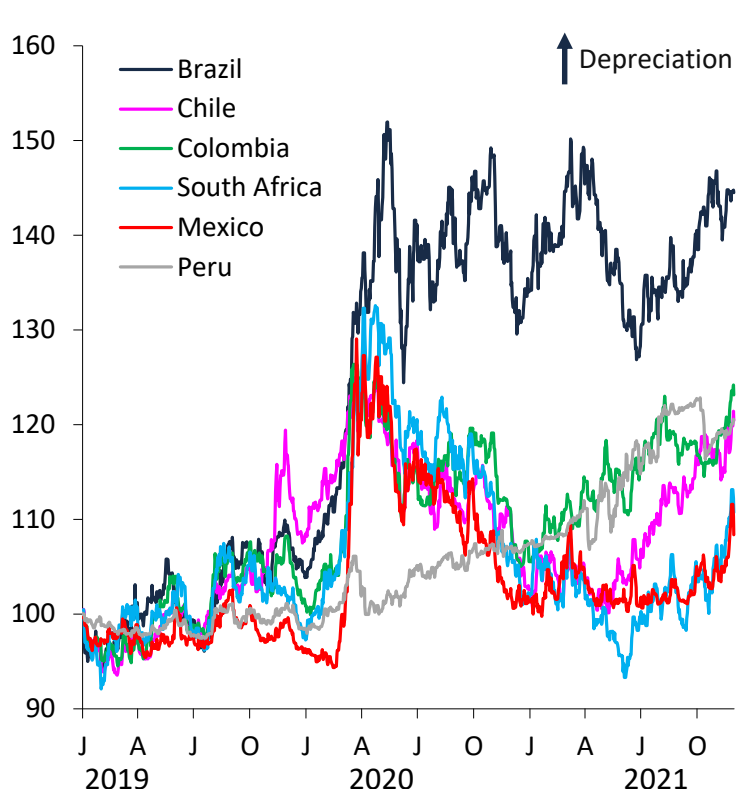
Data as of December 2021.
Source: Banco de México with data from Bloomberg.

Credit ratings of emerging market economies [1]

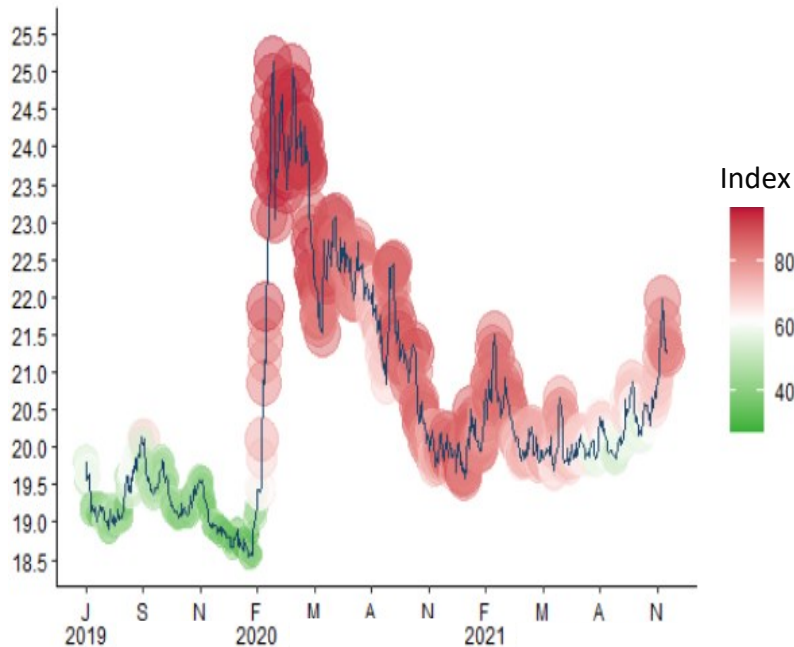Brazil   Chile   Colombia
South Africa   Mexico   Peru
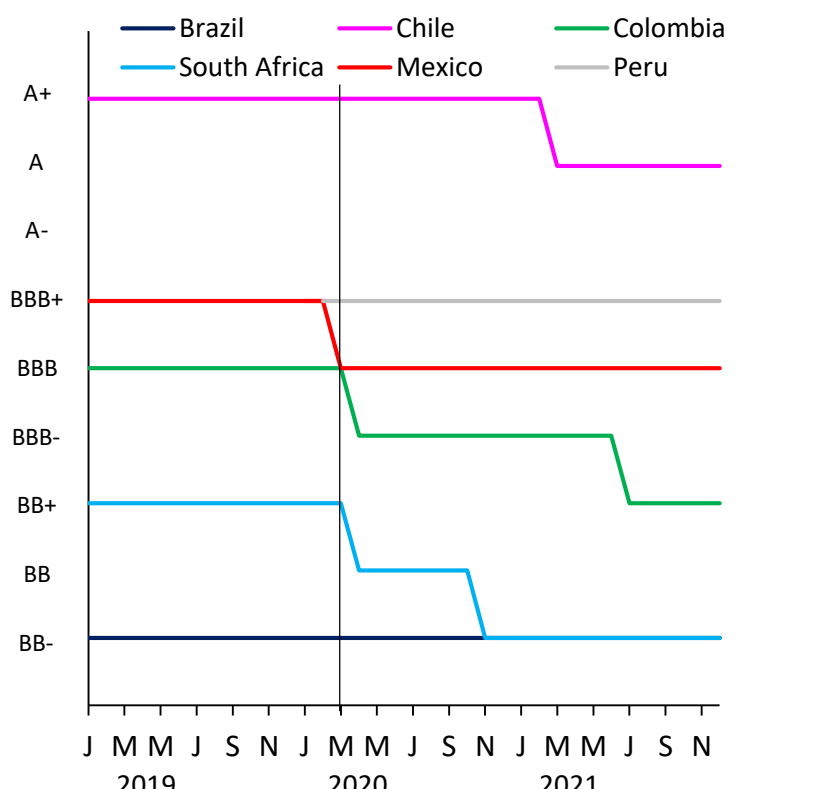
Data as of December 2021.
Source: S&P, Fitch, and Moody's.
1/ Includes the median of the long-term rating in foreign currency of 3 credit rating agencies (S&P, Fitch, and Moody's).

Information that has been published by Banco de México.

④ Mexican financial markets

During S2-2021, Mexican financial markets have generally shown an orderly behavior, with some bouts of volatility starting from mid-September. This was partly associated with higher risk aversion worldwide and idiosyncratic factors.

Trading conditions of the Mexican peso 1/
MXN/USD; Index

Bonds M nominal yield curve 1/
Percent, basis points

← June 15, 2021
← Dec 7, 2021
▲ Change (June 15 to Dec 7, 2021)→

Cumulative performance of stock market indexes in emerging economies 1/
Index (Jan 02 2019 = 100)

Emerging economies (range)
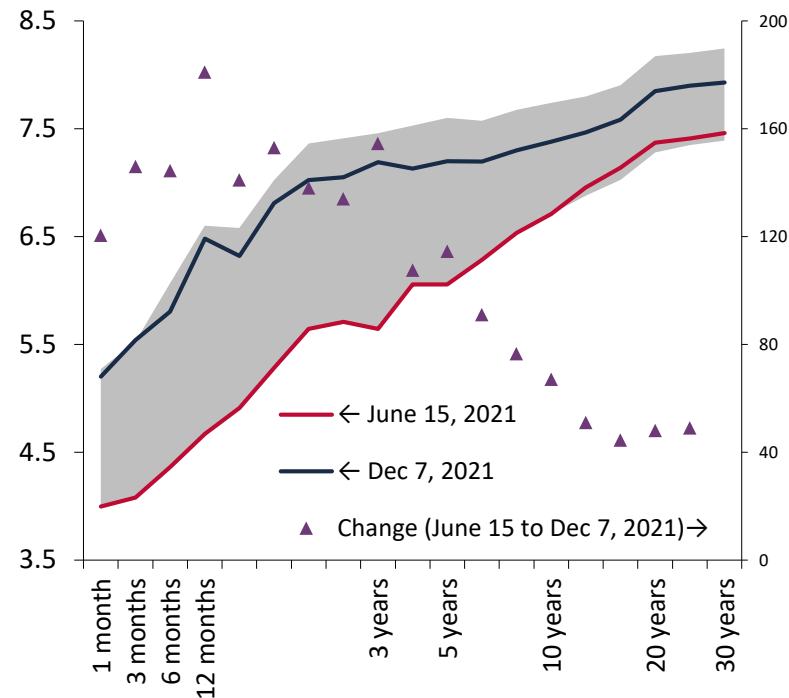Emerging economies (average)
Mexico

Data as of December 2021.
Source: Banco de México with data from Bloomberg and Refinitiv.
1/ The index is estimated as the average of the percentiles calculated since 2018 of the implicit volatility and skewness at one month, and of the observed volume and spread, where the red (green) color indicates a greater (less) deterioration of trading conditions in the exchange market.
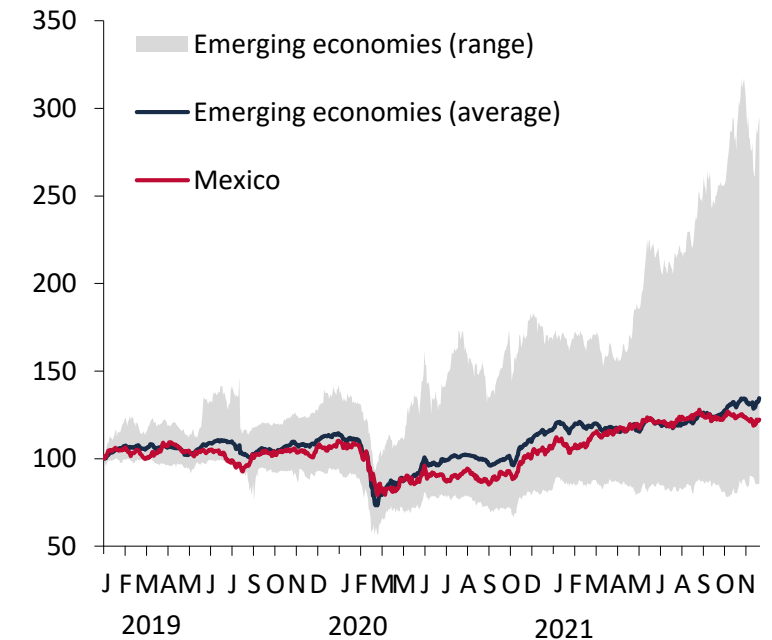
Data as of December 2021.
Source: Banco de México.
1/ The gray area refers to the range of daily yield data since June 15, 2021.
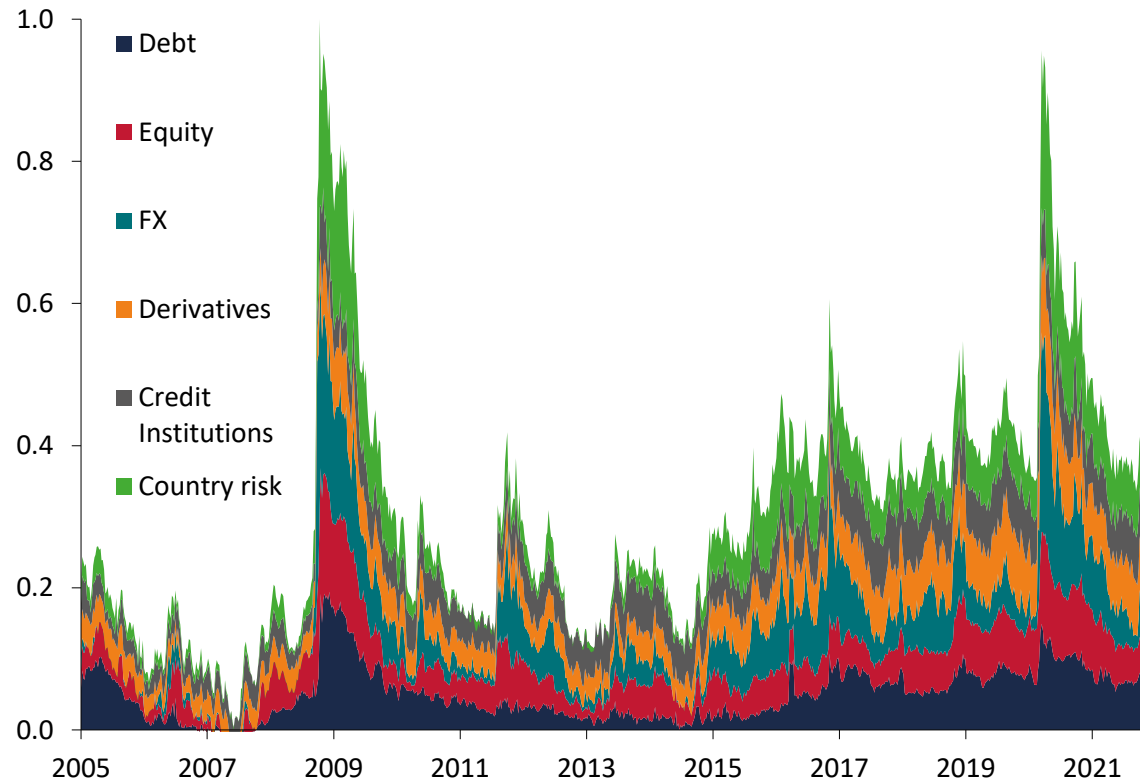
Data as of December 2021.
Source: Banco de México with data from Bloomberg.
1/ The emerging market economies included in the sample are: Argentina, Peru, Colombia, Turkey, the Philippines, Poland, Hungary, Indonesia, South Africa, Russia, Brazil, Colombia, Malaysia, and India.

Information that has been published by Banco de México.

④ Mexican financial markets

At the beginning of S2-2021, the Mexican financial markets stress index decreased, although starting from October this trend reversed due to pressures in both exchange and debt markets. Meanwhile, the Financial Conditions Index tightened slightly since July.

Mexican Financial Market Stress Index [1]
Stress level 2005-21

Data as of December 3, 2021.
Source: Banco de México
1/ The index was estimated using a principal component analysis on 36 standard variables of Mexican financial markets grouped into 6 categories (debt market, securities market, FX market, derivatives market, credit institutions and country risk). Total components yields the IEMF scaled at interval [0,1]. A higher delinquency rate represents higher financial stress.

Mexican Financial Conditions Index [1,2]
Standard deviations
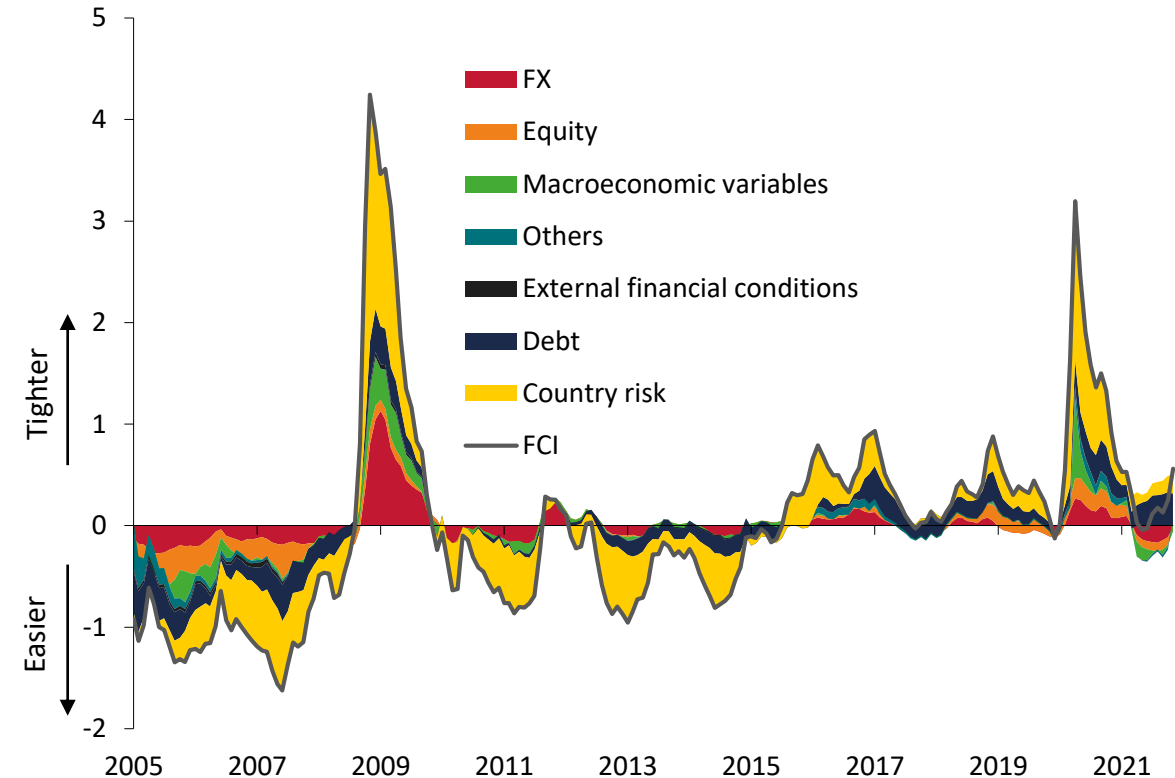
Preliminary data as of November 2021. For October and November data, preliminary information for IGAE was used; for inflation data, November information was used.
Source: Banco de México.
1/ For a description of the methodology see Box 2.: Financial Conditions and Growth at Risk, Financial Stability Report, December 2019.
2/ The contributions of each variable to the FCI are estimated using a Kalman filter.

Information that has been published by Banco de México.

❺ Macro-financial risks

- Over 20 months since the outbreak of the pandemic, the Mexican financial system continues showing resilience and has maintained a solid position.

- However, risks persist, which can affect financial system stability and thus are considered in the stress tests. This Report analyzes the following macro-financial risks to financial stability:

  ➊ **Tighter global financial conditions**, due to faster-than-anticipated **increases in interest rates** in the **major advanced economies**, in response to **greater and more persistent increases in inflation than expected.**

  ➋ A less **vigorous and more heterogeneous** (across both sectors and countries) **recovery of the global economy.**

  ➌ **A prolonged and more accentuated weakness in domestic consumption and investment.**

  ➍ Potential **increases in** sovereign and Pemex's **risk premia** as well as implications for their credit ratings.

Information that has been published by Banco de México.

Contents

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Measures to reinforce credit granting and liquidity provision channels for the sound development of the financial system

- To address the **effects of the COVID-19 pandemic** on the financial system, Banco de México and other financial authorities **implemented** a series of measures, which in some cases, underwent adjustments according to the evolution of the crisis.

- During the second semester of 2021 **most liquidity and financing measures** implemented due to the pandemic **concluded**, following a **gradual and orderly unwinding strategy,** in line with the previously announced guidelines.

- Likewise, an end-date set between the end of 2021 and the first quarter of 2022 was established for the **measures that remain in force**.

- The implemented measures sought to continue promoting the orderly behavior of the financial markets and financial intermediaries, **strengthen lending channels, and provide liquidity for the sound development of the financial system**.

- If necessary, **Banco de México will continue taking the necessary actions**, in strict compliance with the legal framework and in coordination with other financial authorities, to maintain the stability of the financial system and the well-functioning of the payment systems.

Information that has been published by Banco de México.

Use of measures to foster an orderly behavior of financial markets, strengthen credit provision and supply liquidity for the well-functioning of the financial system

	Size of programs			Usage		Memo:	
	as of April 30, 2021	as of November 29, 2021		Amount outstanding [1]		Total amount allocated [2]	
	(Billion MXN)	(Billion MXN)	(Billion USD)	(Billion MXN)	(Billion USD)	(Billion MXN)	(Billion USD)
I. Measures to provide liquidity							
Reduction of Monetary Regulation Deposits (DRMs, for its acronym in Spanish)	50	50		50		50	
Ordinary Additional Liquidity Facility [3]	d.n.a.	d.n.a.		0		0	
Increasing liquidity during trading hours [4]	d.n.a.	d.n.a.		d.n.a.		d.n.a.	
Government securities term repurchase window	150	0		0		465	
Temporary securities swap window [5]	50	0		3.6		63.19	
Corporate securities repurchase facility	100	0		0		44.83	
II. Measures to foster an orderly behavior of financial markets							
Swaps of government securities	100	d.n.a.		14.98		14.98	
Foreign exchange hedge program (billion USD) [6]			30		7.49		7.49
Financing in USD via credit swap line with the US Federal Reserve (billion USD)			60		0.05		15.25
III. Measures to strengthen credit provision							
Financing to micro, small- and medium-size enterprises and individuals, via liberating DRM or tem repos	250	0		8.72		13.96	
Collateralized financing facility for commercial banks with corporate loans, to finance micro, small- and medium-size enterprises	100	0		30.75		40.22	
Total measures implemented in MXN (billion MXN) [7]	**800**	**50**		**108.1**		**692.2**	
Total measures implemented in USD (billion USD)			**90**		**7.5**		**22.7**

Figures as of November 29, 2021. Source: Banco de México. d.n.a.: Does not apply.
1/ The outstanding amounts refer to the resources available and assigned through auctions before the unwinding of the facilities. As the operations expire, the outstanding amounts will be adjusted. 2/ Includes maturities and refinancing. 3/ The facility is activated at the request of the bank. 4/ Excess intraday liquidity that is sterilized at the close of the interbank market through open market operations. 5/ Does not consider the amount assigned but not guaranteed later 0.056 million pesos. 6/ The additional amount used since announcing the increase in the program from 20 to 30 Billion USD on March 9, 2020 is 1.991 billion USD.7/ The total amount does not consider the increase in liquidity during operating hours.

Information that has been published by Banco de México.

Contents

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① Heat maps of Mexican financial system risks

At the end of September, the risks reflected in the heat maps of financial system risks have improved with respect to the previous semester, although some have marginally increased.

Heat maps of Mexican financial system risks

Data as of September 2021.
Source: Banco de México.
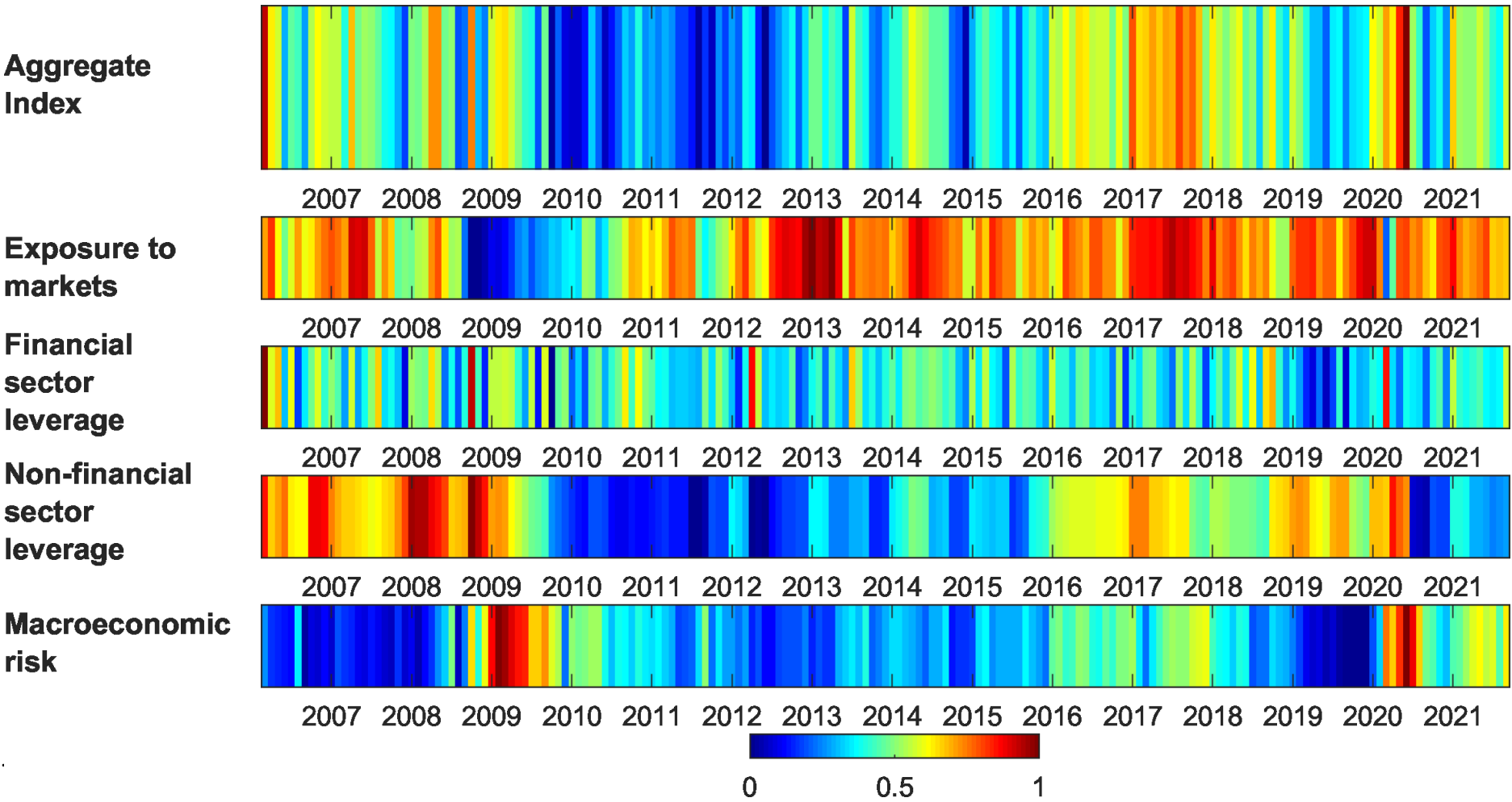
Information that has been published by Banco de México.

② *Survey on Systemic Risk Perception* among financial institutions

The expectations of financial intermediaries (afores, insurance companies, commercial banks, development banks, brokerage firms, and investment funds) about the main risks they face have decreased compared to the previous six months, while domestic financial and global economic activity risks have increased.

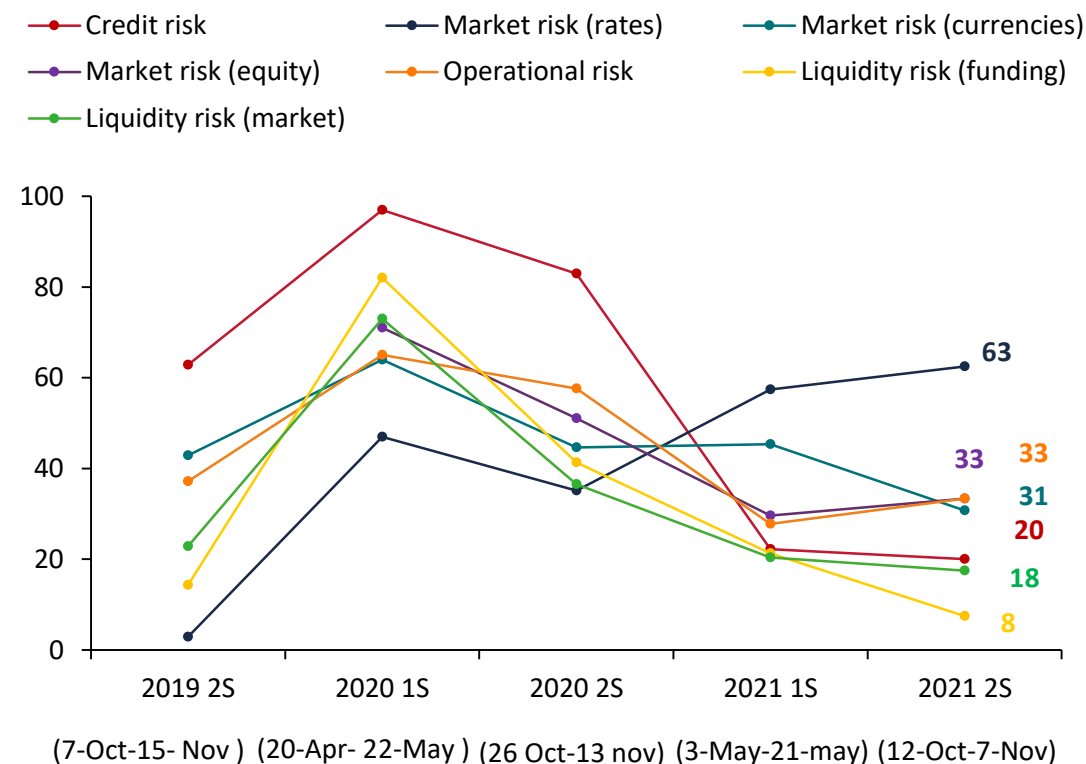### Main sources of financial system risks[1]
% of total institutions

	May 2021[1]	Nov 2021[2]
External financial risks		
Deterioration of foreign market conditions*	72	72
Deterioration of global economic growth outlook	62	70
Volatility in commodity prices	53	63
Disorderly changes in foreign interest rates	67	56
Proteccionist policies and deterioration of commercial agreements	70	52
Domestic financial risks		
Deterioration of the domestic economic growth outlook	65	79
Deterioration of public finances	64	62
Deterioration of domestic risk appetite	56	61
Deterioration of sovereign credit rating	60	60
Fiscal, financial and economic policies	54	59
Non-financial risks		
Cybersecurity and IT risks	81	71
Political, geopolitical and social risks	87	70
COVID-19 (fourth wave, immunization deficiency, pandemic extension)	81	63
Violence and insecurity	56	56
Deterioration of the rule of law and impunity	60	38

1/ In the last survey 108 institutions participated.

2/ In the current survey 112 institutions participated.

* Exchange rate volatility, depreciation and lack of liquidity

### Expectations regarding the evolution of risks in the following six months
%

Legend: Credit risk; Market risk (rates); Market risk (currencies); Market risk (equity); Operational risk; Liquidity risk (funding); Liquidity risk (market)

(7-Oct-15- Nov) (20-Apr- 22-May) (26 Oct-13 nov) (3-May-21-may) (12-Oct-7-Nov)

Source: Banco de México.

Information that has been published by Banco de México.

Total financing to the non-financial private sector lies below trend, exhibiting a negative credit gap for the firs time since 2007.

Credit to the non-financial private sector as a proportion of GDP [1]
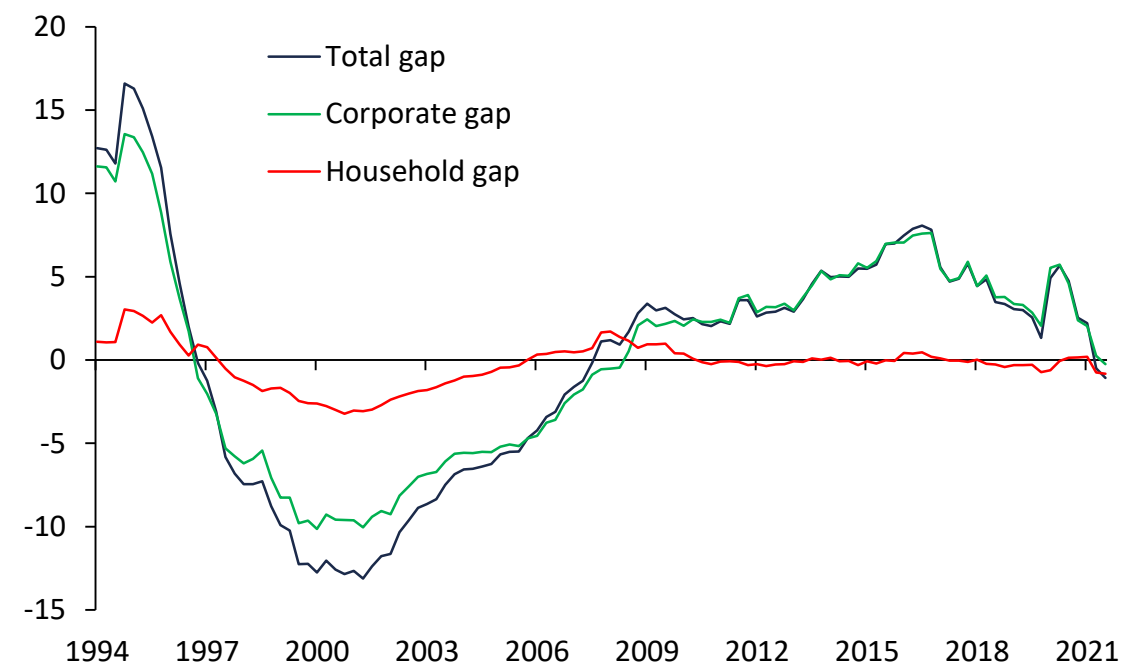% of GDP
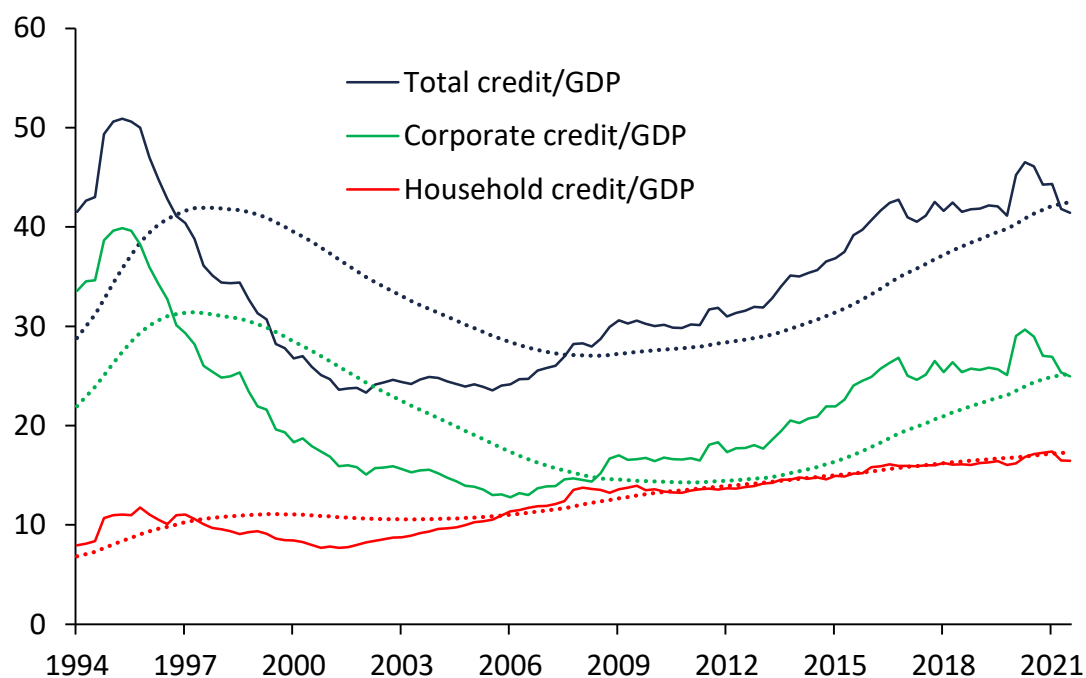
Data as of September 2021.
Source: Banco de México.
1/ The dotted lines correspond to the long-term trend.

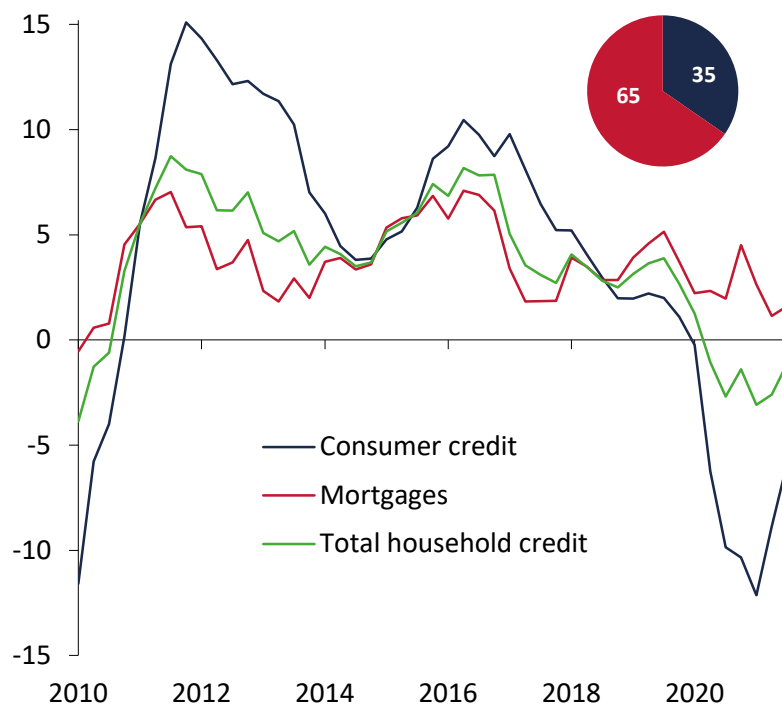**Credit gap**[1]
%

Data as of September 2021.
Source: Banco de México.
1/ Refers to the difference between financing and its long-term trend.

Information that has been published by Banco de México.
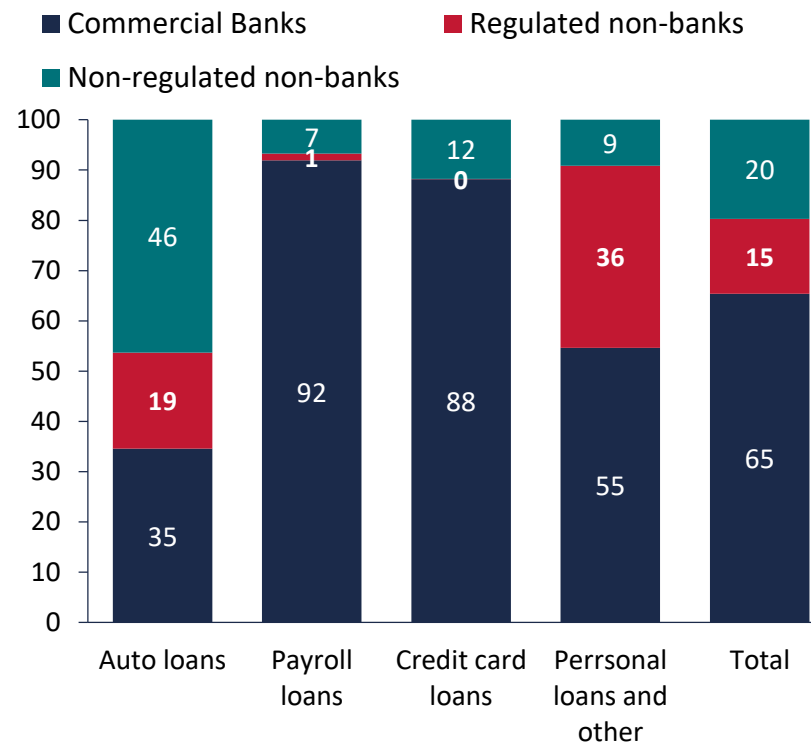
④ Households' financial position

Total financing to households continued decreasing in real annual terms during the period, driven by the unfavorable evolution of consumer credit, while mortgages continued increasing. Consumer loans granted by banks decreased in real terms for all types of loans.
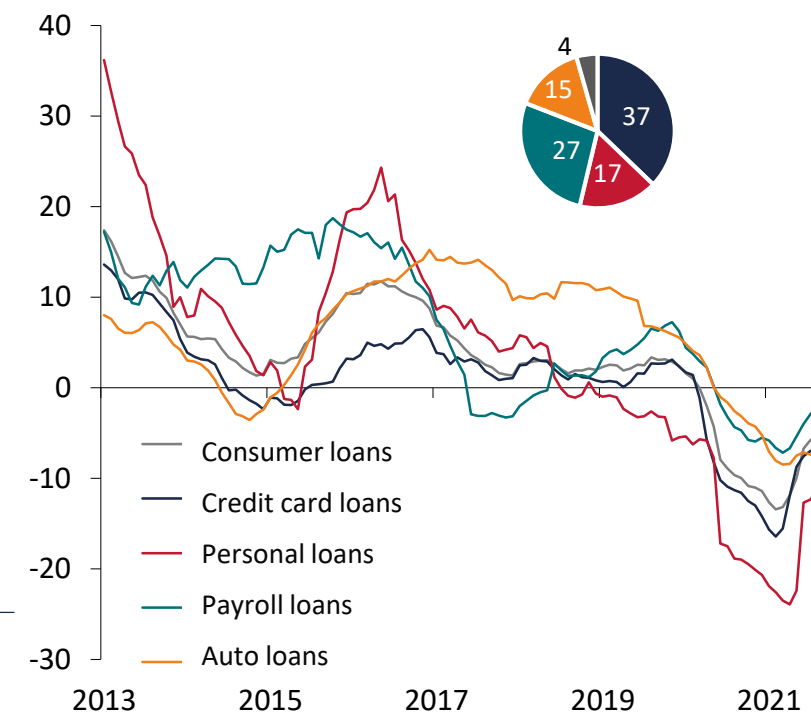
Household credit growth [1]
Real annual % change

Legend:
- Consumer credit
- Mortgages
- Total household credit

Pie chart: 65, 35

Consumer credit by source [1]
%

Legend:
- Commercial Banks
- Regulated non-banks
- Non-regulated non-banks

	Auto loans	Payroll loans	Credit card loans	Perrsonal loans and other	Total
Non-regulated non-banks	46	7	12	9	20
Regulated non-banks	19	1	0	36	15
Commercial Banks	35	92	88	55	65

Commercial banks' performing consumer loan portfolio
Real annual % change

Pie chart: 37, 17, 27, 15, 4

Legend:
- Consumer loans
- Credit card loans
- Personal loans
- Payroll loans
- Auto loans

Data as of September 2021.
Sources: Banco de México, BMV, and Condusef.
1/ For details on the contents of each item, see the *Report*.

Data as of September 2021.
Sources: Banco de México, CNBV, and Condusef.
1/ / For details on the contents of each item, see the *Report*.

Data as of September 2021.
Source: CNBV.

Information that has been published by Banco de México.

The delinquency rate of the different segments of the consumer bank loan portfolio in the last six months, has seen a significant decrease, after having reached the highest levels in the last five years at the beginning of 2021. The delinquency rate of other lenders has also trended slightly downwards.

Delinquency rate of banks' consumer loan portfolio [1]
%
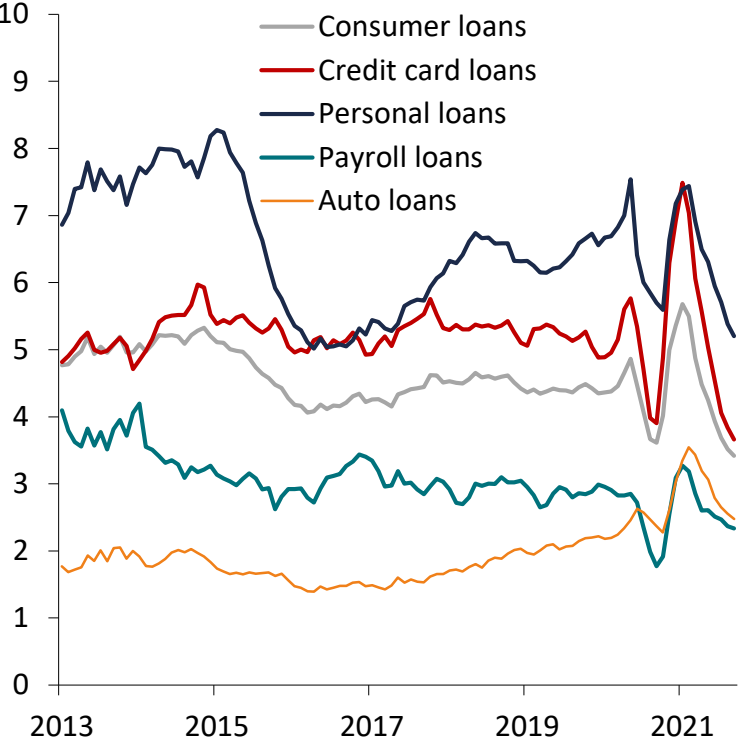
Legend: Consumer loans, Credit card loans, Personal loans, Payroll loans, Auto loans

Data as of September 2021.
Source: CNBV.
1/ Includes regulated sofomes with equity links to banks.

Adjusted delinquency rate of banks' consumer loan portfolio [1]
%
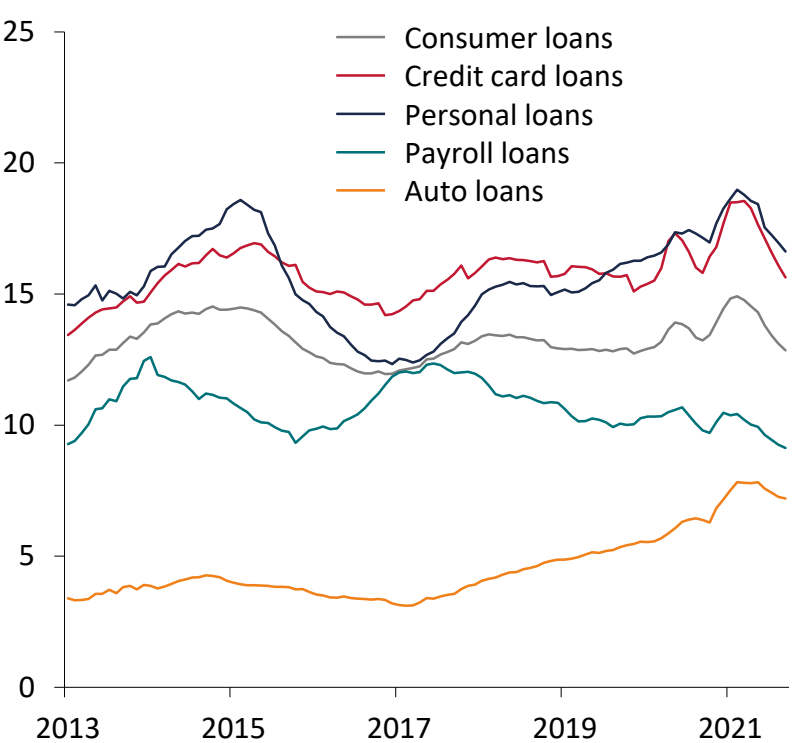
Legend: Consumer loans, Credit card loans, Personal loans, Payroll loans, Auto loans

Data as of September 2021.
Source: CNBV.
1/ Includes regulated sofomes with equity links to banks.

### Delinquency rate of consumer loan portfolio by type of lender
%

Legend: Commercial banks, Regulated entities, Non-regulated entities

Pie chart: 65, 15, 20
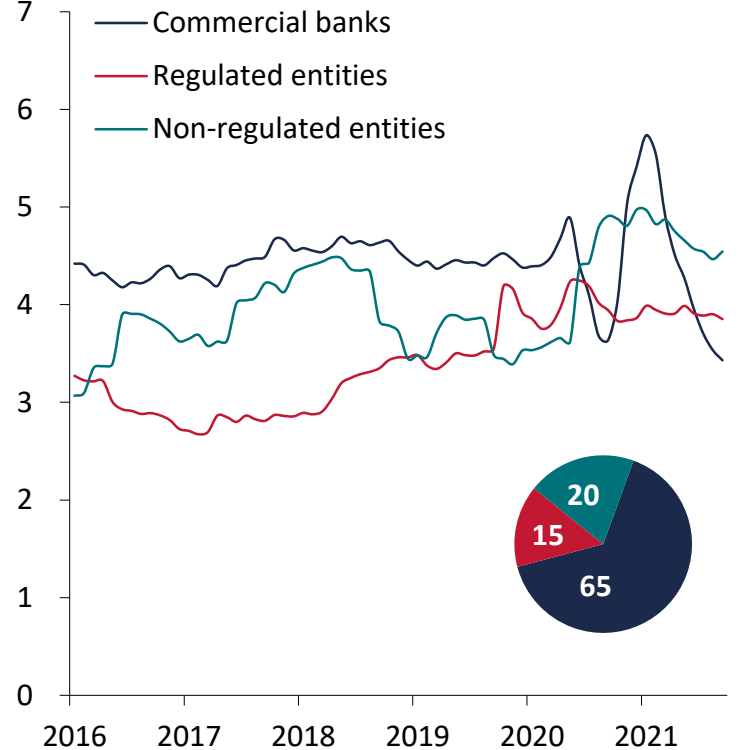
Data as of September 2021.
Source: Banco de México (SIE), BMV, Condusef, and Credit Bureau.

Information that has been published by Banco de México.

Mortgages continued increasing during Q2- and Q3-2021, although at a slower rate than in previous quarters, in an environment in which bank mortgage origination standards (PTI and LTV) have not loosened. The delinquency rate of the bank housing portfolio has increased for some lenders.

### Mortgages granted by banks [1]
Billion pesos
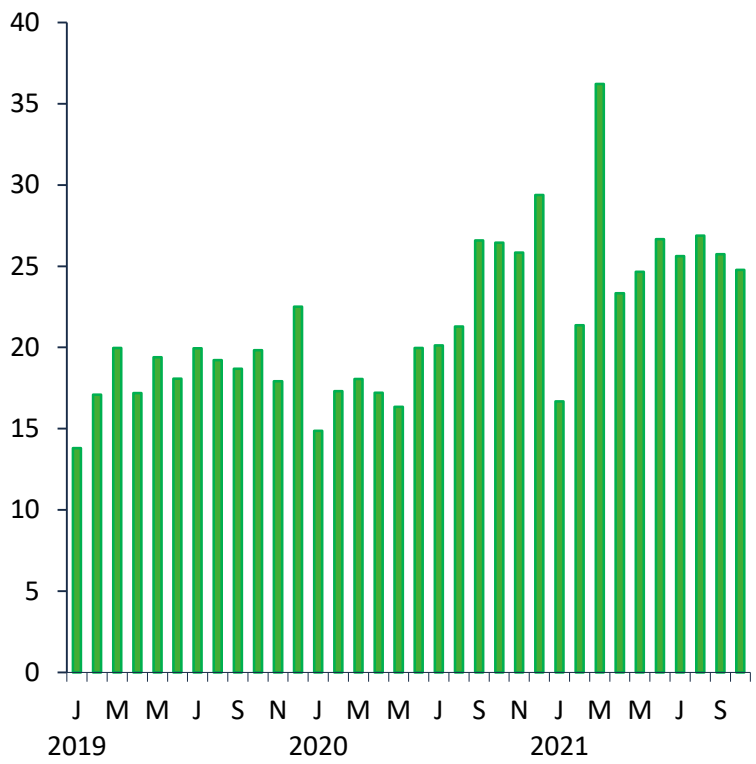
Data as of September 2021.
Source: CNBV.
1/ Includes banking and related-sofomes credit.

Loan-to-value ratio (LTV) and mortgage payment-to-income ratio (PTI) [1]
%
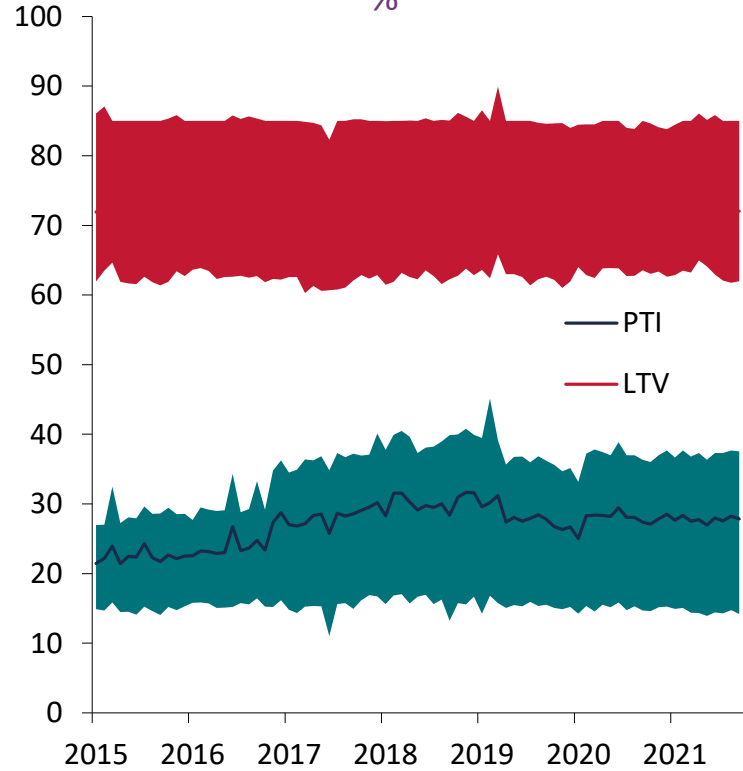
Data as of September 2021.
Source: CNBV.
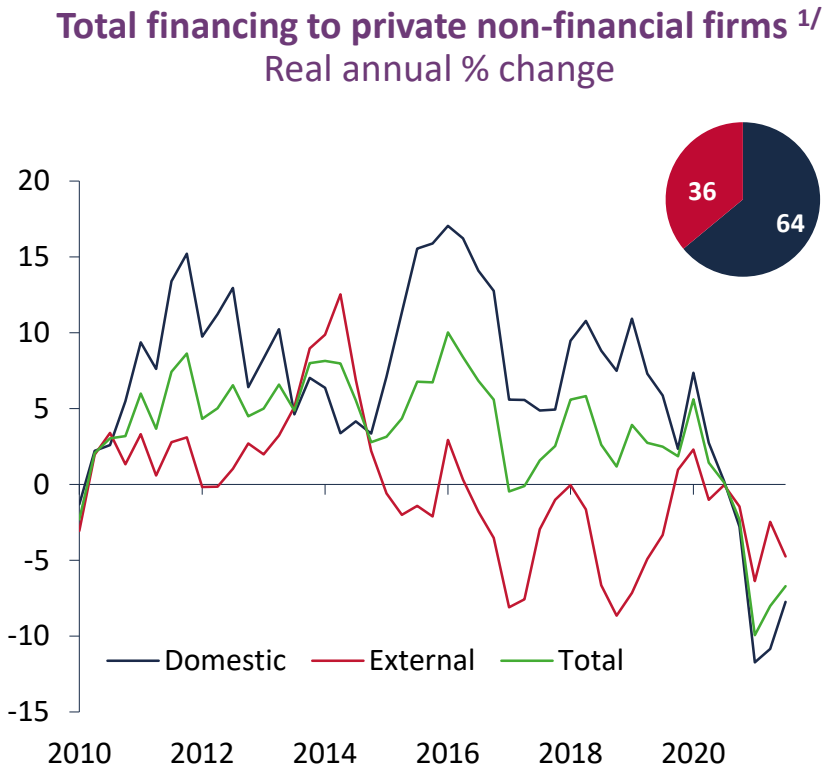1/ Newly granted credit for the acquisition of housing from commercial banks.

Delinquency rate on mortgages by type of granting entity
%
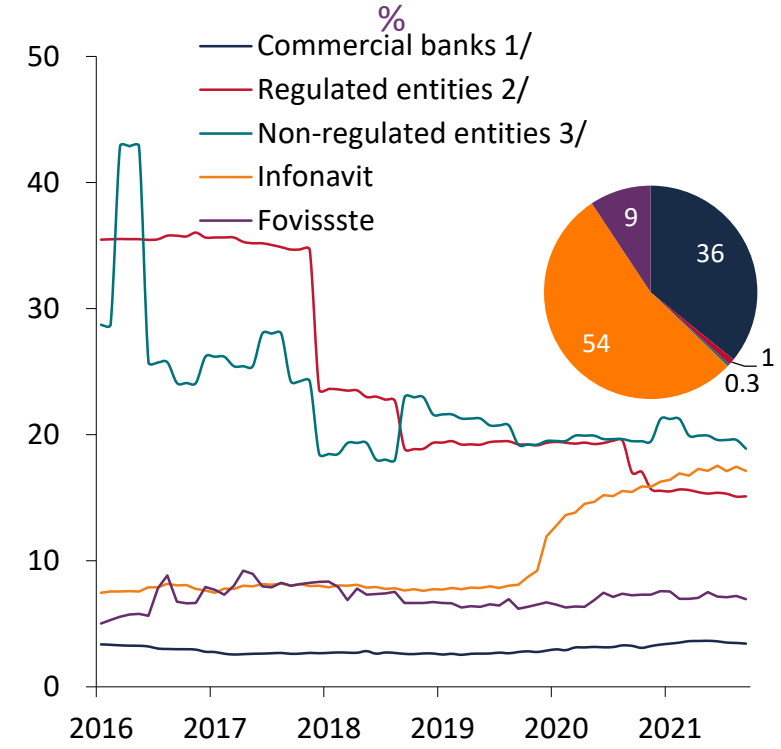
— Commercial banks 1/
— Regulated entities 2/
— Non-regulated entities 3/
— Infonavit
— Fovissste

Data as of September 2021.
Source: Banco de México (SIE), CNBV, BMV, and Condusef.
1/ Includes the loan portfolio of sofomes regulated that have an equity link with a bank. 2/ Includes the loan portfolio of development banks and regulated non-bank financial institutions such as socaps, sofipos, and sofomes regulated issuing debt. 3/ Includes non-regulated sofomes.

Information that has been published by Banco de México.
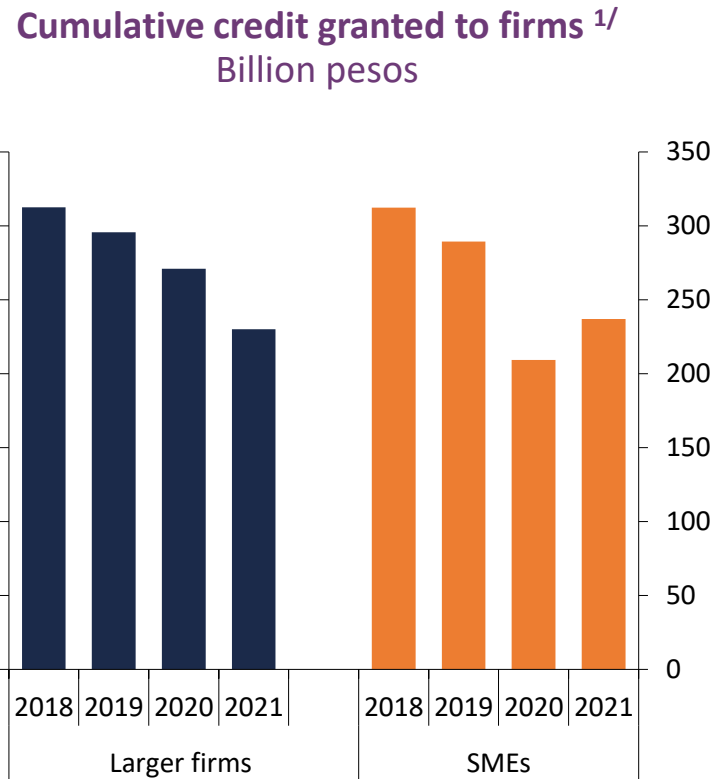
⑤ Private non-financial firm's financial position

Total financing to non-financial private firms continued contracting during the period. A more evident contraction is observed in the case of large firms, while for Small and Medium-size Enterprises (SMEs) a smaller contraction is observed than that recorded in 2020 in relation to that observed in 2019.

Total financing to private non-financial firms [1]
Real annual % change

Real annual portfolio growth by firm size [1]
Real annual % change

Cumulative credit granted to firms [1]
Billion pesos

Data as of September 2021.
Sources: Banco de México, BMV, and SHCP.
1/ The percentages consider the figures related to non-regulated entities granting financing, which are included at the bottom of Table 2 (Memo), and therefore differ from those shown at the top of the same table.
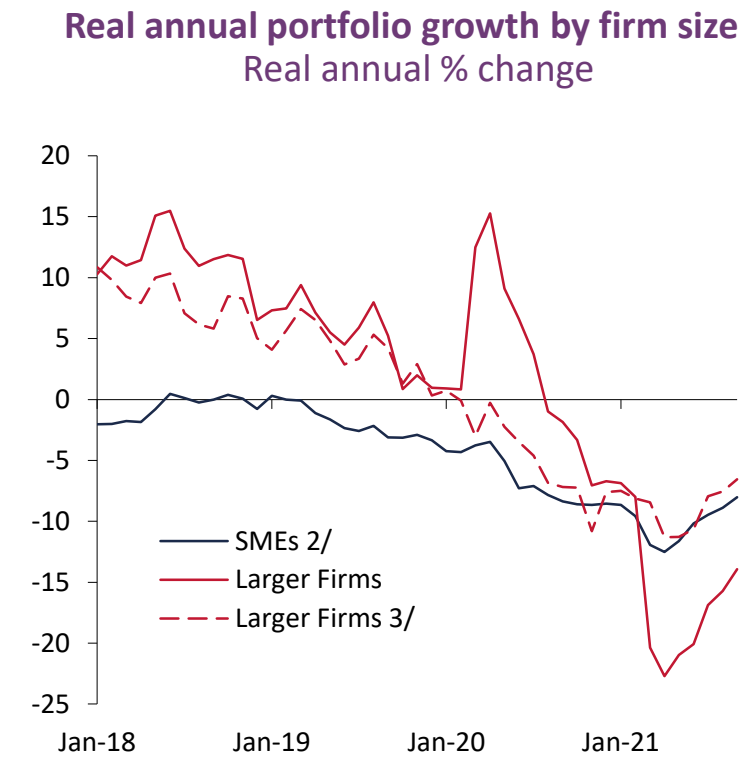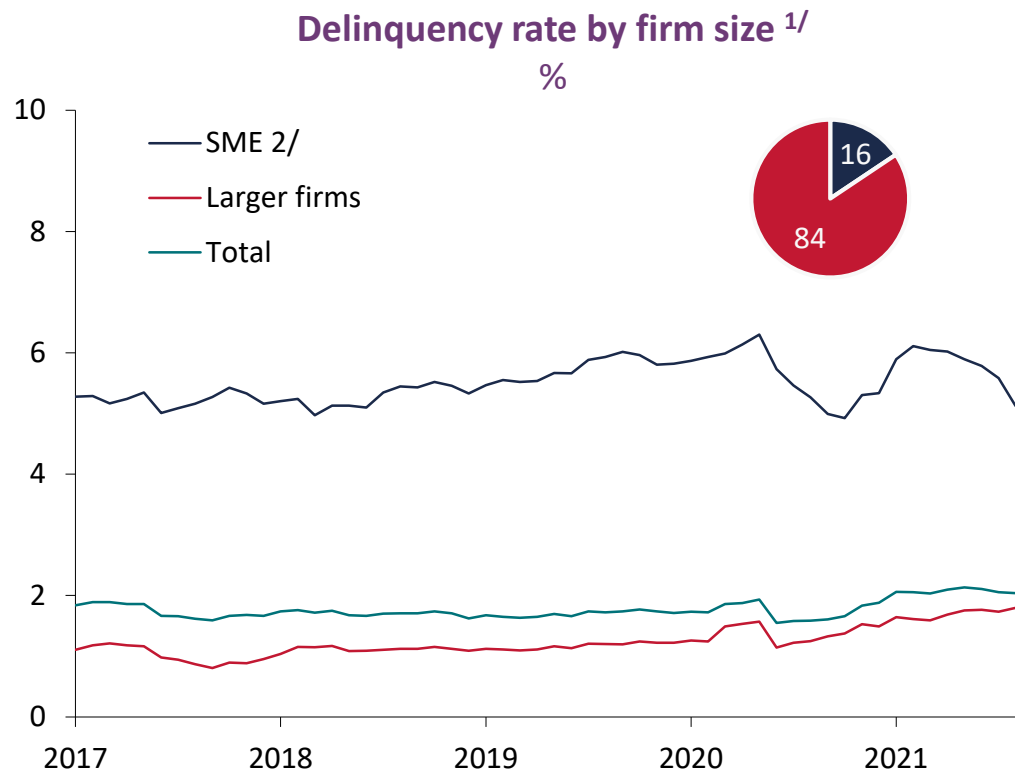
Data as of September 2021.
Source: CNBV
1/ Bank portfolio. The pie chart shows the total percentage of the portfolio for each segment. 2/ Non-financial private companies not listed on the Mexican Stock Exchange with historical maximum credits of less than 100. 3/ Large firms excluding those that had a monthly increase in their balance of more than 15% in Mar-20, which represent 30% of the balance and 16% of borrowers of large firms as of the last date.

Data as of September 2021.
Source: CNBV.
1/ Cumulative January-September of each year. Figures at constant prices second half of July 2018.

Information that has been published by Banco de México.

The delinquency rate of smaller companies has followed a downward trend since the second quarter of 2021, while that of large companies has increased slightly. The delinquency rate of the commercial portfolio granted by NBFIs is higher than that of banks and has increased to a larger extent.

Delinquency rate by firm size [1]
%

Legend:
- SME [2]
- Larger firms
- Total

Pie chart: 16, 84

Delinquency rate of non-financial firms' loans
%

Legend:
- Commercial banks [1]
- Regulated entities [2]
- Non-regulated entities [3]
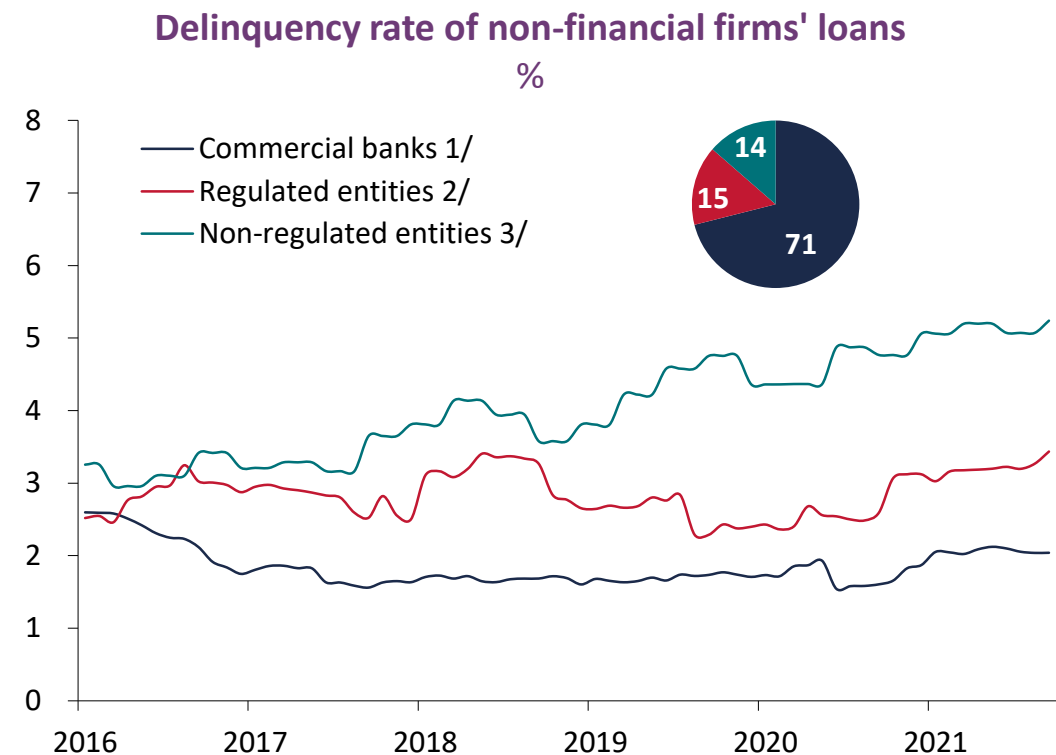
Pie chart: 14, 15, 71

Data as of September 2021.
Source: CNBV.
1/ The pie chart shows the total percentage of the portfolio for each segment.
2/ Non-financial private companies not listed on the Mexican Stock Exchange with historical maximum loans of less than 100 million pesos.

Data as of September 2021.
Source: Banco de México (SIE), CNBV, BMV, and Condusef.
1/ Includes the loan portfolio of sofomes regulated for having an equity link with a bank, whether they are subsidiaries of the bank or not. 2/ Includes the loan portfolio of development banks and regulated non-bank financial entities such as socaps, sofipos, credit unions, and sofomes regulated issuing debt. 3/ Includes the portfolio of non-regulated sofomes and that of financial companies that mainly grant credit as part of their line of business, such as financial leasing companies or some financial arms of automotive companies.

Information that has been published by Banco de México.

The capitalization level of commercial banks increased between March and September 2021, and credit risk (conditional VaR) decreased, keeping banks in a solid position to face possible adverse scenarios.
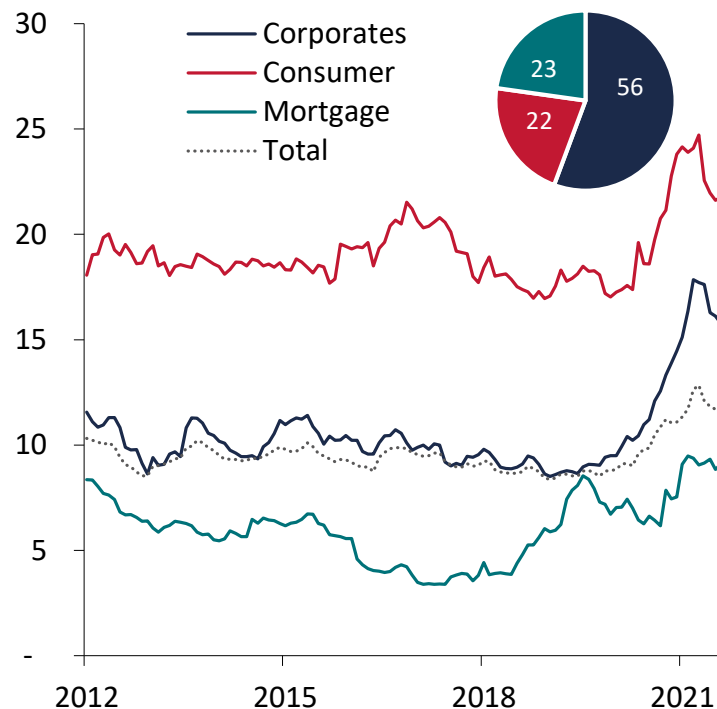
Structure of banks' Capital Adequacy Ratio (CAR) [1]
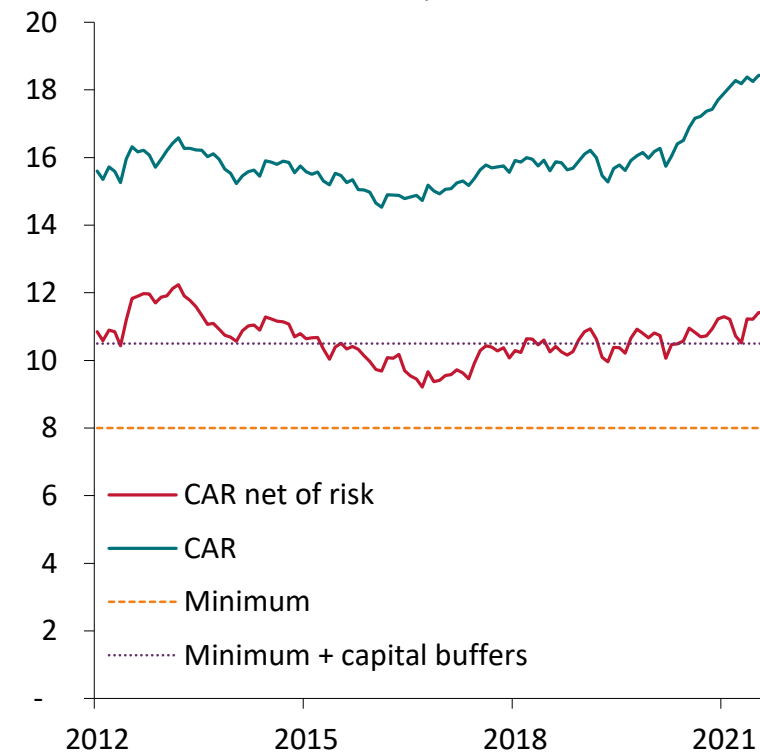%
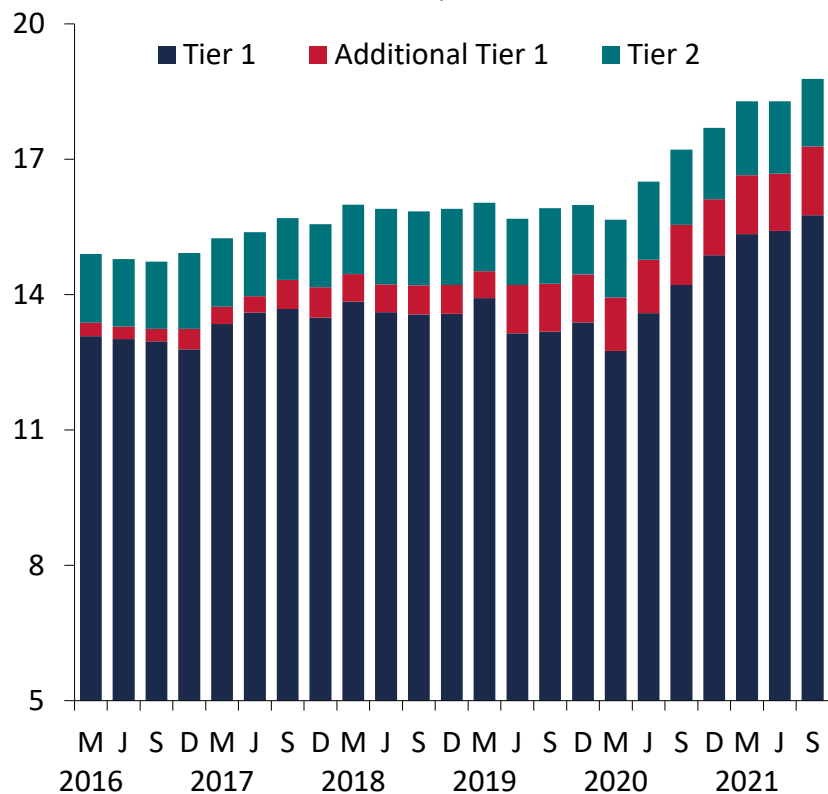
Conditional value at risk (CVaR) of credit by type of portfolio [1]
% of portfolio

CAR net of risk [1]
%

Data as of September 2021.
Source: Banco de México.
1/ The capital adequacy ratio (CAR) is calculated by dividing the net capital by the risk weighted assets. The net capital is the regulatory capital that includes the Tier 1, Additional Tier 1, and the Tier 2 capital.

Data as of September 2021.
Source: Banco de México, CNBV, and Credit bureau.
1/ Using the time horizon of a year, and the 99.9% confidence level. The pie chart shows the percentage of the total performing balance for each segment of portfolio.
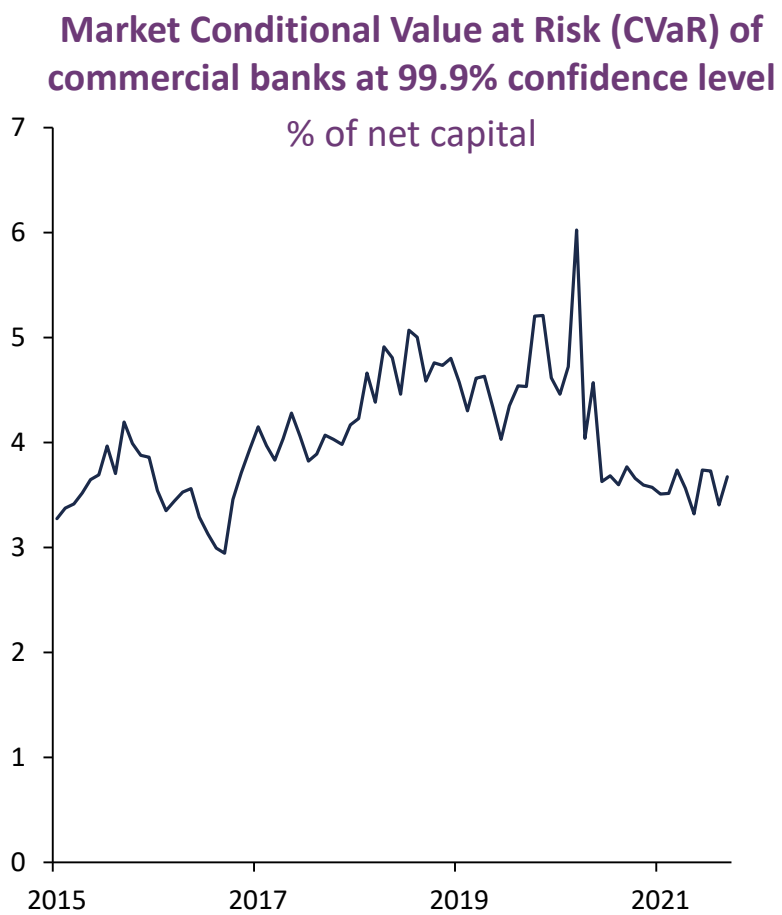
Data as of September 2021.
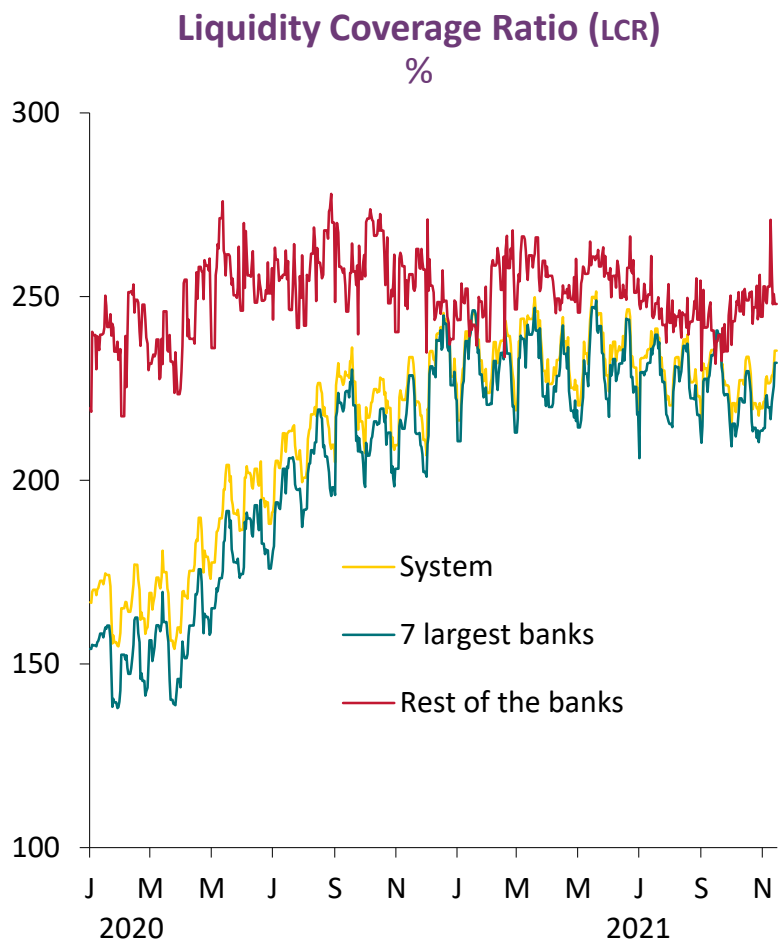Source: Banco de México, CNBV, and Credit bureau.
1/ Estimated as the capitalization ratio that results from reducing the CVaR at a 99.9% confidence level, both of the net capital and risk-weighted assets.

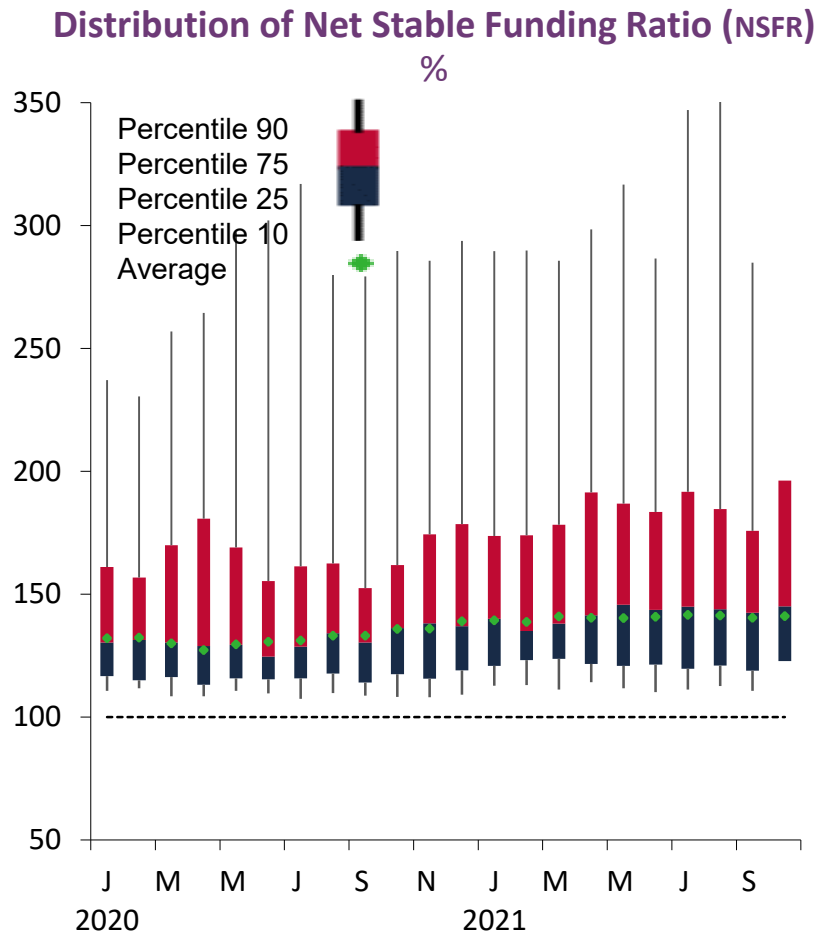Information that has been published by Banco de México.

During the analyzed period, commercial banks' market risk remained relatively stable. Liquidity levels (both in local and foreign currency) amply fulfill regulatory minimums; therefore, risks on this front are considered to be contained.

Market Conditional Value at Risk (CVaR) of commercial banks at 99.9% confidence level

% of net capital

Data as of September 2021.
Source: Banco de México.

Liquidity Coverage Ratio (LCR)
%

System
7 largest banks
Rest of the banks

Data as of November 2021.
Source: Banco de México.

Distribution of Net Stable Funding Ratio (NSFR)
%

Percentile 90
Percentile 75
Percentile 25
Percentile 10
Average

Data as of October 2021.
Source: Banco de México.

Information that has been published by Banco de México.

⑦ Other risks: cyber risks and operational continuity risks

- The availability levels of financial market infrastructures and payment systems managed and operated by Banco de México have remained high. In the case of SPEI, its almost total availability (99.99%) at the end of the third quarter of 2021 stands out.

- Financial institutions and authorities adopted different measures to address cyber risks, which increased during the pandemic, including a greater surveillance of their operations and infrastructure.

- The authorities' supervision has been complemented by cyber resilience exercises and cyber attack simulations (detection, containment and response).

- Banco de México, in addition to monitoring compliance with basic cybersecurity measures by institutions, promoted actions to improve institutions' response to cyberattacks.

- The participation of other players in the global and domestic financial system could pose additional risks.

Information that has been published by Banco de México.

7 Other risks: environmental risks and investments' sustainability

- This *Report* expands Banco de México's analysis on *environmental risks and sustainable financial assets in Mexico*.

- Between April and September 2021, issuance of **sustainable bonds** in domestic and international markets by domestic issuers (both private and public) **continued**.

- Acknowledging the challenges to implement the recommendations of the Task Force on Climate-related Financial Disclosures (*TCFD*) in the Mexican financial system, the private sector has decided to create the "*TCFD Mexico Consortium*".

- This *Report* also includes **a review of the efforts made by different central banks to analyze scenarios** that explicitly consider the impact of physical and transition risks arising from climate change.

- It also includes a description of the most important aspects discussed last November at **COP26.**

Information that has been published by Banco de México.

Contents

Information that has been published by Banco de México.

Stress tests to commercial banks

- The stress tests carried out by Banco de México are simulations performed to **assess the resilience of the Mexican banking system** under extreme but plausible economic scenarios.

- The scenarios considered **should not be taken as a forecast** of the expected performance of the economy, nor should they be associated with a probability of occurrence.

- The objective of the **credit stress tests** is to assess if, under extreme economic conditions, the banking system could performing its financial intermediation functions and maintaining a capital adequacy ratio above regulatory minimums.

Information that has been published by Banco de México.

Stress tests

Scenarios[1/]

Assumptions on macro-financial variables

A — **Tightening of global financial conditions due to increases in AEs' interest rates in response to inflationary pressures**

- Slower pace of global economic recovery.
- Recomposition of capital flows towards lower risk assets.
- Additional pressures on the exchange rate.
- Upward pressure on interest rates.
- High volatility in local financial markets.

B — **A less vigorous and more heterogeneous (across both sectors and countries) recovery of the global economy;**

- Lower growth in other economies or shortages of inputs affect GDP growth and employment.
- Additional pressures on the exchange rate and greater volatility in financial markets.
- Decrease in banks' credit portfolios, which affects their income and capital.

C — **Weak domestic consumption and investment lead to lower economic dynamism**

- Low levels of investment and consumption in the short term, affecting GDP growth and employment.
- Decreased capital flows to Mexico, which put pressure on the exchange rate.
- Persistent negative effects on potential growth.

D — **Higher risk premia, for both sovereign and Pemex's credit ratings**

- High volatility in financial markets, portfolio recomposition and capital outflows.
- Depreciation of the exchange rate and upward pressures on interest rates.
- **Contraction of aggregate demand.**

❶ *The exercise is common to all institutions and does not consider idiosyncratic problems related to loan origination.*

❷ *It does not consider possible mitigation measures that could be implemented by the institutions in the simulation (counterfactual simulation of partial equilibrium, and not general equilibrium).*

1/ More detailed information on these scenarios can be found in the *Report*.

Credit stress tests

Stress test results suggest that the Mexican banking system has sufficient capital levels to face the simulated stress scenarios.

Financial system Capital Adequacy Ratio (CAR)[1,2,3]
%
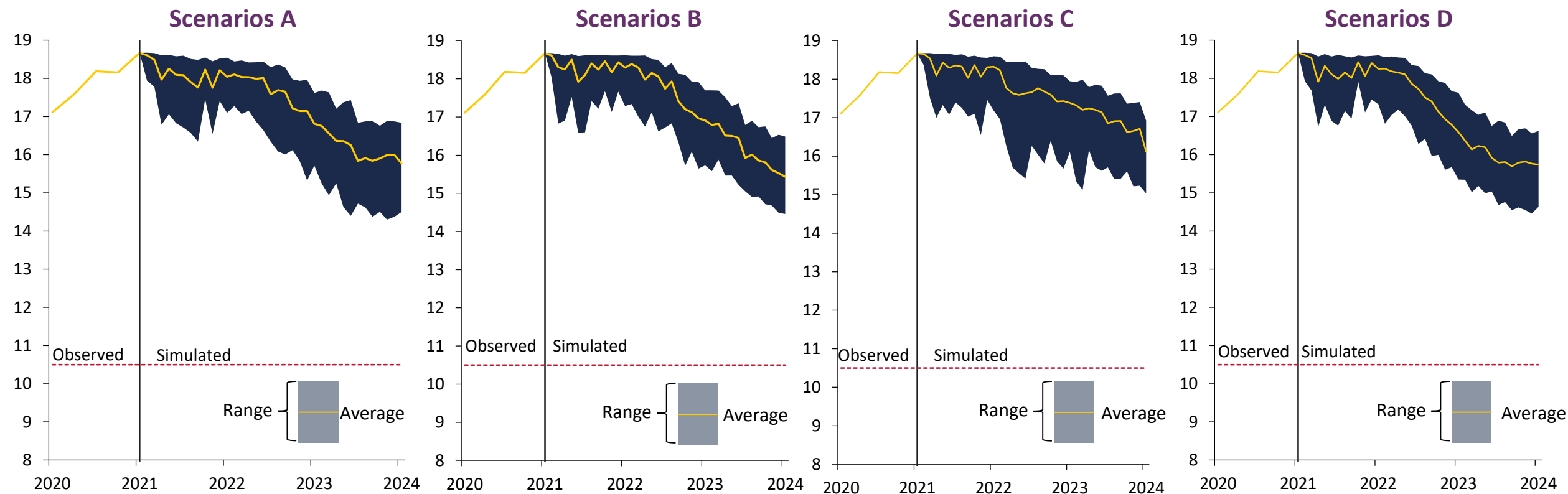
Data as of September 2021 and 3-year simulations starting from that date. Source: Banco de México.
1/ The horizontal line corresponds to minimum CAR plus capital buffers.
2/ These results should in no way be interpreted as a forecast for the 3 years analyzed.
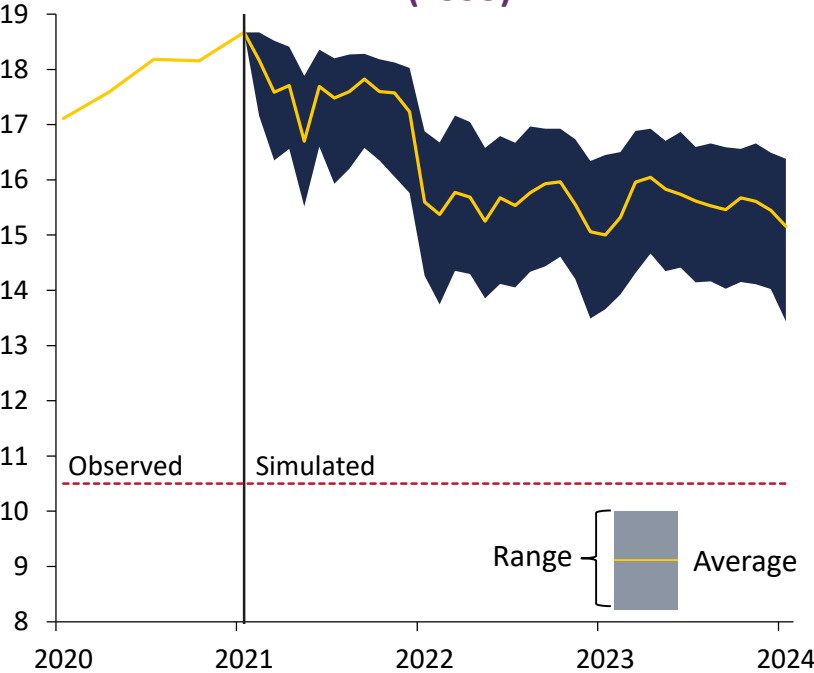3/ Yellow lines represent the mean CAR of each scenario of the system. The gray areas define the range of capitalization indexes observed in all trajectories of simulations.

Information that has been published by Banco de México.
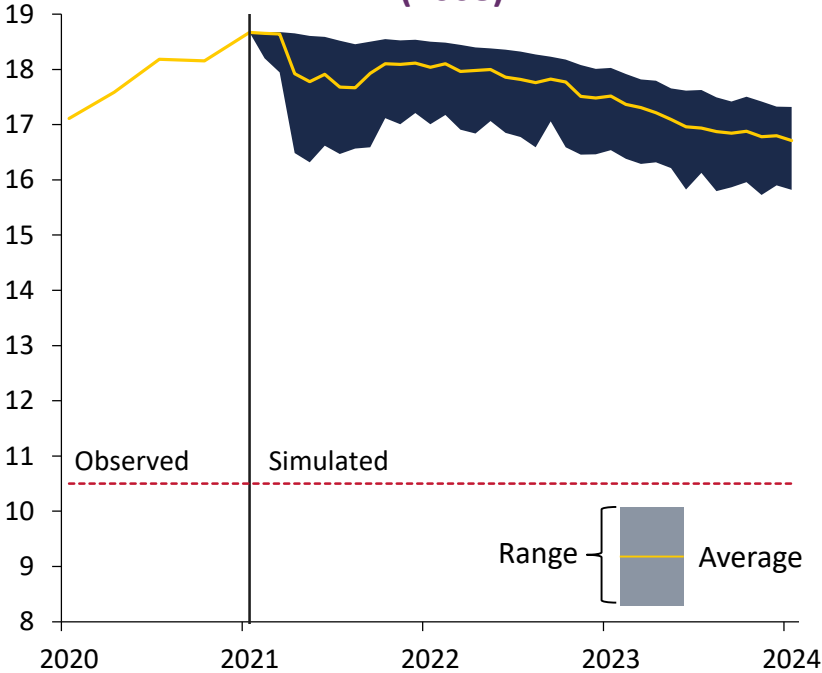
Credit stress tests

Additionally, a set of historical scenarios are considered that replicate situations similar to those that the domestic economy has faced in the past. Simulations indicate that the banking system would also end the stress horizon with capitalization levels above regulatory minimums.

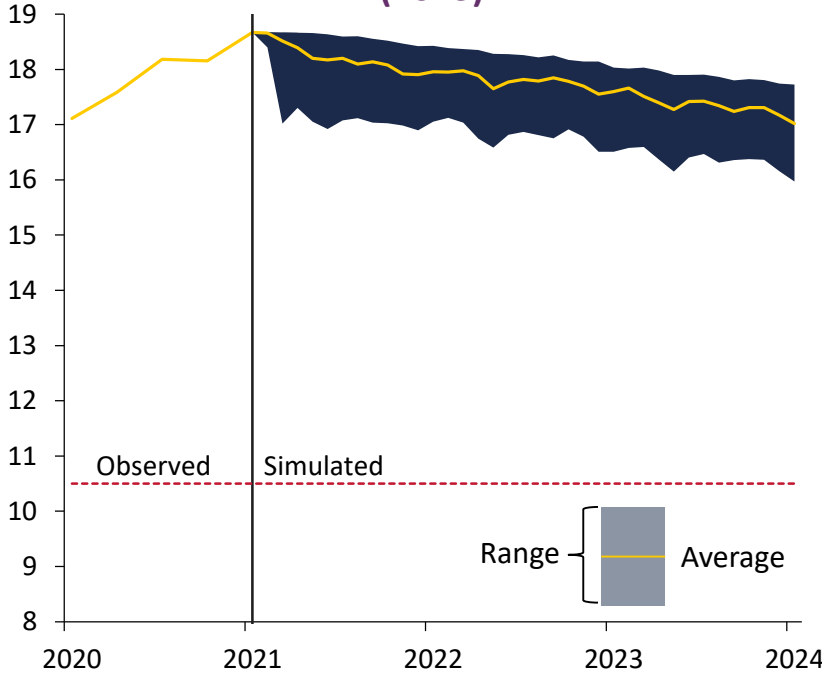### Financial system Capital Adequacy Ratio (CAR) [1,2,3]
%

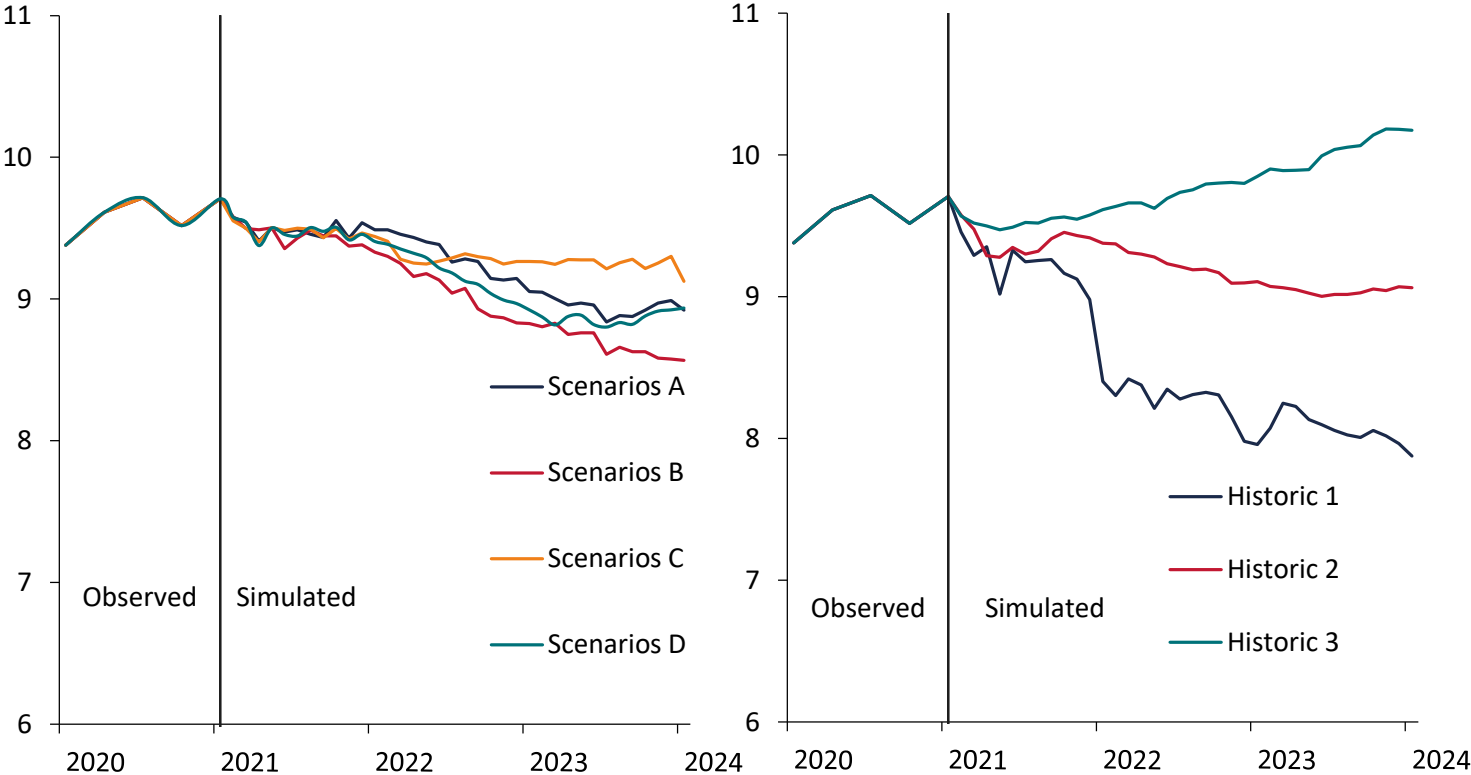Historic scenarios 1 (1995) | Historic scenarios 2 (2008) | Historic scenarios 3 (2013)

Data as of September 2021 and 3-year simulations starting from that date. Source: Banco de México.
1/ The horizontal line corresponds to minimum CAR plus capital buffers.
2/ These results should in no way be interpreted as a forecast for the 3 years analyzed.
3/ Yellow lines represent the mean CAR of each scenario of the system. The gray areas define the range of capitalization indexes observed in all trajectories of simulations.

Information that has been published by Banco de México.

Credit stress tests

Regarding the banking institutions' leverage ratio, in all scenarios considered, the system is, on average, above the 3% regulatory minimum.

Financial system's financial leverage ratio
%

Data as of September 2021 and 3-year simulations starting from that date.
Source: Banco de México.

Average Capital Adequacy Ratio (CAR) and leverage ratio in stress scenarios
% of assets in the banking system
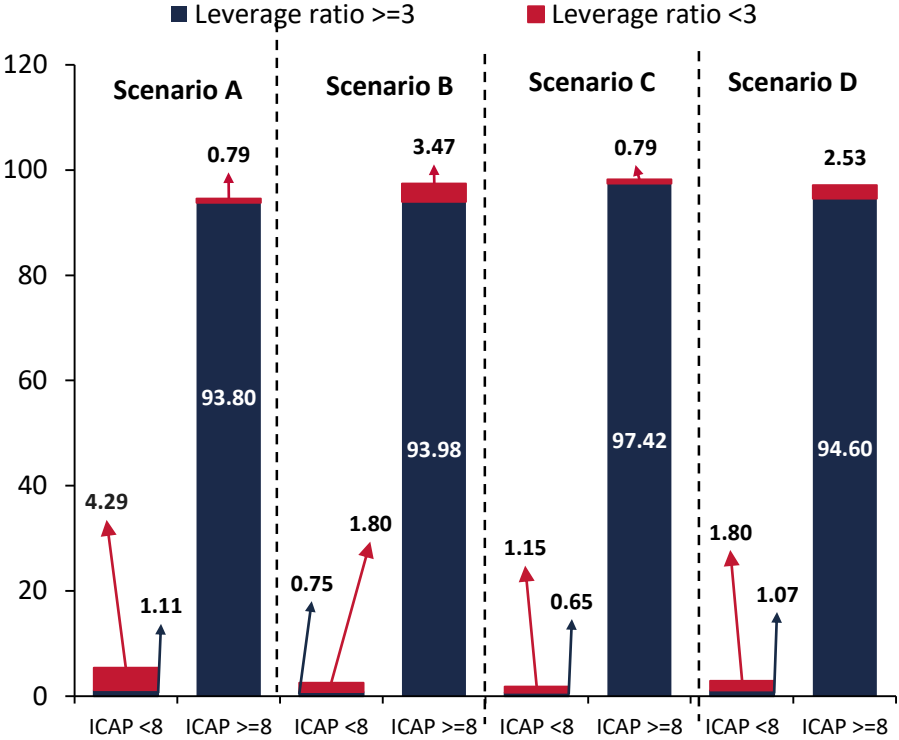
Data as of September 2021 and 3-year simulations starting from that date.
Source: Banco de México.

Information that has been published by Banco de México.

Commercial banks' stress tests

The results of stress tests suggest the following:

1 **The banking system as a whole has capital and liquidity levels that would allow it, at an aggregate level, to maintain levels above regulatory minimums in the simulation horizons of 36 months.**

2 As for leverage ratio levels, the system's levels would remain above the regulatory minimum of 3%.

3 In certain extreme simulated scenarios, some banking institutions (representing a low percentage of total assets of the system) could have difficulties maintaining minimum regulatory capitalization levels.

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Contents

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Final remarks

① More than 20 months after the outbreak of the pandemic, **the Mexican financial system continues to show resilience and has maintained a sound position**, mainly commercial banks.

② Economic activity has shown some recovery, although with a marked heterogeneity across sectors, and credit granting has not reactivated accordingly.

③ Some **risks** which increased at the beginning of the pandemic **continue to be at levels above those previously observed.**

④ Current levels of capital and liquidity, as well as the main risks faced by commercial banks, would allow for a prudent expansion of bank credit.

⑤ Given that the Mexican financial system has continued showing resilience and a generally sound position, it is in a condition to support the pace, scope, and robustness at which the Mexican economy recovers.

Boxes

1. International adoption of standardized identifiers for derivative transactions
2. Evolution of macro-financial variables during the COVID-19 pandemic
3. The importance of ensuring a resilient financial system
4. Interaction between Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)
5. New participants in the financial system and financial stability
6. Virtual assets and their implications for financial stability and household economy
7. Conference of the Parties (COP26)
8. Tariffs on carbon-intensive imports and transition risks in Mexico

Annexes

1. Disaggregated heat map of the Mexican financial system

Information that has been published by Banco de México.