Government Securities

TECHNICAL DESCRIPTION

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MEXICO'S BOND MARKET

• Mexico has one of the most-developed bond market in Latin America, with an outstanding domestic debt securities amounting to USD 810.7 billion, only behind Brazil. 1/

Mexico's innovative instruments and debt management have been recognized internationally:

- ▶ In November 2023, Mexico won the Bonds, Loans and ESG Capital Markets Latin America & Caribbean awards 2023 for Sovereign, Supra & Agency Treasury & Funding Team of the Year. 2/
- ▶ In May 2023, The Banker awards Mexico in the category "Bonds: Sovereign, Supranational and Agencies" for the inaugural issuance of a sustainable bond denominated in dollars. 3/
- In April 2023,
 - ► Environmental Finance awards Mexican Bondes G in the category: "Sustainability sovereign bond of the year 2022. This was the first sovereign bond issued in pesos aligned with ESG criteria. 4/
 - Mexico wins Largest Sovereign Social and Sustainability Bond at the 8th Climate Bonds Awards by the Climate Bonds Initiative. ^{5/}
- ▶ In the last 5 years, Mexican government has been awarded 22 times because of its debt management and its sustainable development goals. 5/
- Moody's assigned an SQS1 sustainability quality score (excellent) to the Government of Mexico's SDG Sovereign Bond Framework. 6/

^{1/} As of the first quarter of 2023 BIS Debt Securities statistics.

^{2/} BONDS, LOANS & ESG CAPITAL MARKETS LATIN AMERICA & CARIBBEAN AWARDS 2023 28TH NOVEMBER | THE... | GFC Media Group (bondsloans.com)

^{3/} Announcement No. 32.

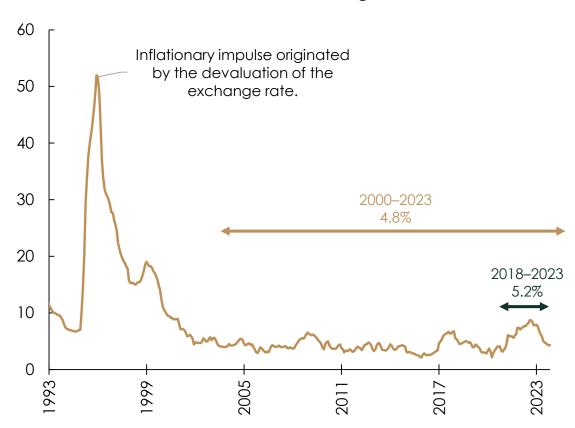
^{4/} Environmental Finance Bond Awards 2022.

^{5/} Announcement No. 24.

^{6/} Moody's Investors Service.

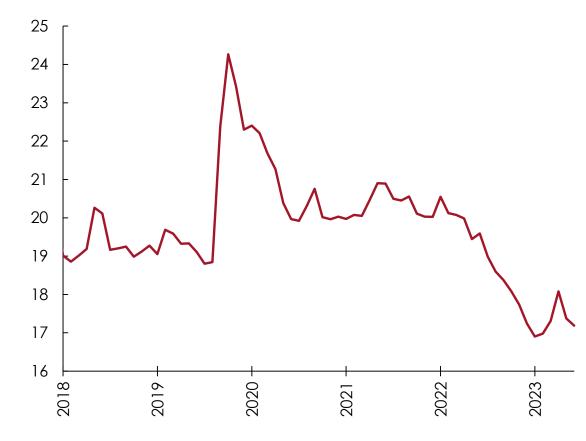
OVERVIEW: EXTERNAL FEDERAL DEBT

Inflation, 1991-2023*
Annual % Change



Source: Banco de México.

Exchange Rate, 2018-2023* Peso/USD



Source: Banco de México.

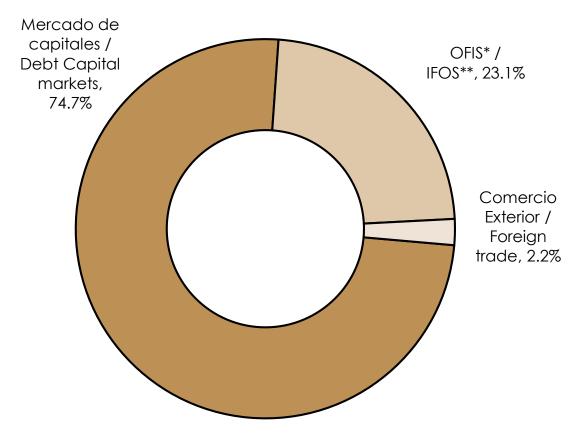
* Latest data as of December 29th, 2023.

^{*} Latest data as of November 2023.

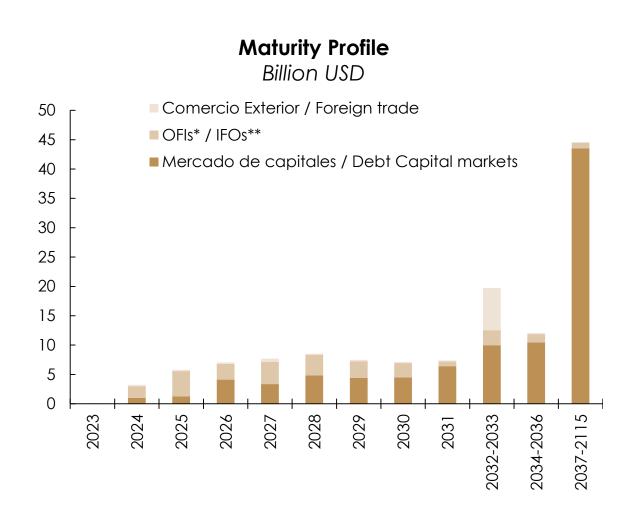
OVERVIEW: FEDERAL DOMESTIC DEBT

External Debt Distribution

% Total



Note: * International Financial Organizations (OFIS, by its Spanish acronym), ** Ordinary Fiscal Income, (IFOS, by its Spanish acronym). Source: Ministry of Finance.

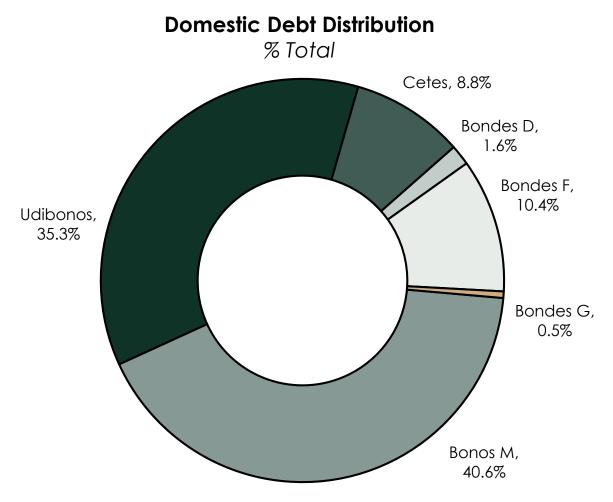


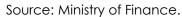
Note: * International Financial Organizations (OFIS, by its Spanish acronym),

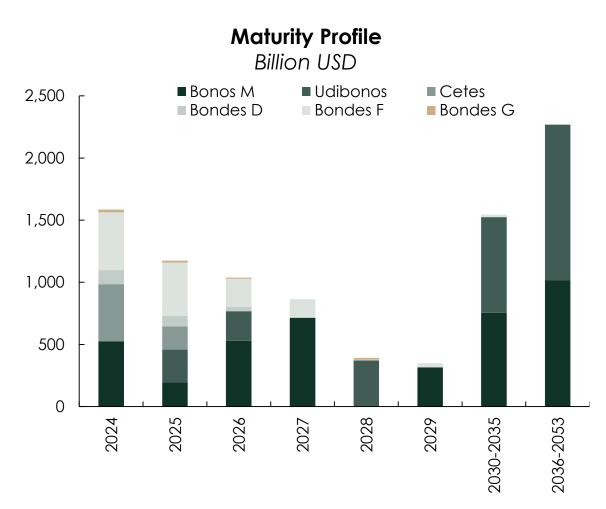
** Ordinary Fiscal Income, (IFOS, by its Spanish acronym).

Source: Ministry of Finance.

OVERVIEW: FEDERAL DOMESTIC DEBT

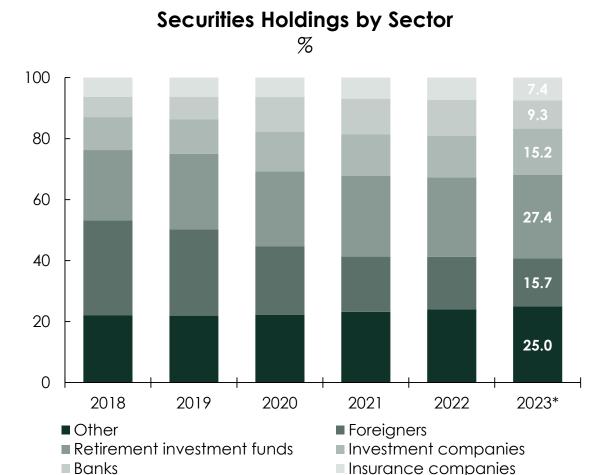






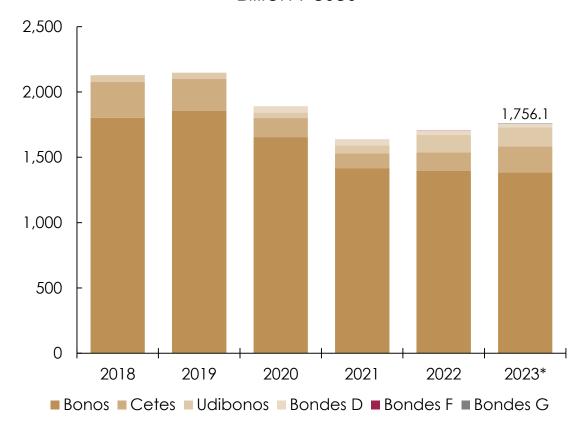
Source: Ministry of Finance.

OVERVIEW: HOLDING OF SECURITIES



Source: Banco de México.

Non-Residents' Holdings of Government Bonds Billion Pesos

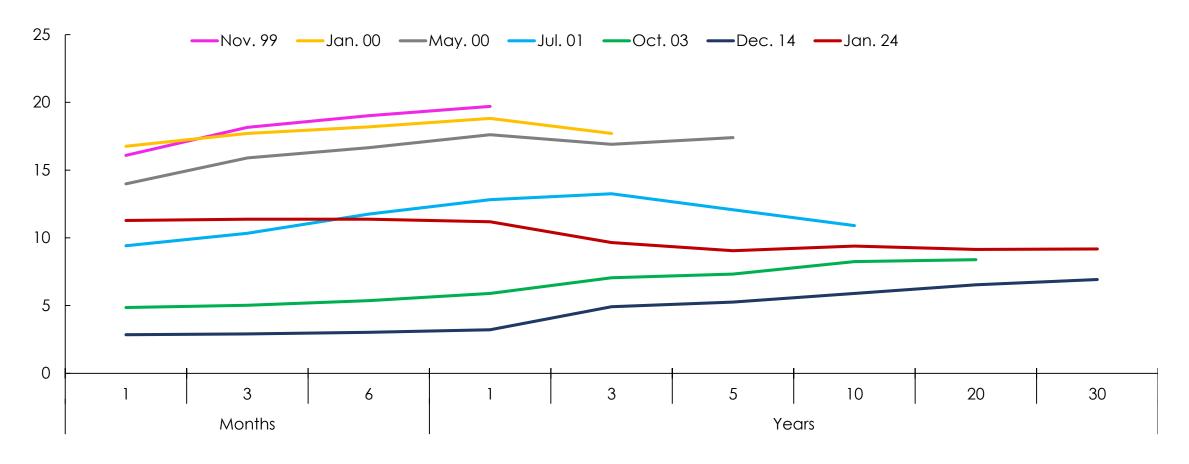


^{*} Last update: January 2nd with data as of December 20th, 2023.

^{*} Last update: January 2nd with data as of December 20th, 2023.

MARKET DEPTH - YIELD CURVE

In only a few years, the Mexican debt market has experienced an **outstanding growth**, extending the yield curve from **one year in 1999 to 30 years in less than a decade**. This extension was due to the rapid growth of more domestic and foreign participants, with various investment horizons and strategies.



THE MEXICAN GOVERNMENT SECURITIES

Local government securities issuances			
Instrument	First issuance	Characteristics	Interest rate
Cetes Federal Treasury Certificates	Jan 19, 1978	Zero-coupon bonds	Yield rate referenced to discount rate
Bonos Fixed-interest Federal Government Development Bonds	Jan 27, 2000	182-day coupon	Fixed interest rate set at issue date
Udibonos Federal Government Development Bonds denominated in Investment Units	May 30, 1996	182-day coupon	Fixed interest rate set at issue date
Bondes D Government Development Bonds	Aug 17, 2006	28-day coupon	Daily "weighted-average interbank funding rate"
Bondes F Government Development Bonds	Oct 7, 2021	28-day coupon	Overnight equilibrium interbank interest rate (TIIE) collateralized
Bondes G Sustainable Government Development Bonds	May 4, 2022	28-day coupon	Overnight Equilibrium interbank interest rate (TIIE) collateralized

Mexico's rating debt in local currency		
Rating Agency	Rate	Outlook
S&P	BBB	Stable
Fitch	BBB-	Stable
Moody's	Baa2	Stable
Source: S&P, Fitch and Moody's.		

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CETES (MEXICAN FEDERAL GOVERNMENT TREASURY CERTIFICATES)

- The Mexican Federal Treasury Certificates (CETES) are the oldest debt instrument issued by the Federal Government. These securities are zero-coupon bonds and are traded at a discount.
- Face value is 10 Mexican pesos. Currently, CETES are issued for 28- and 91-day terms, and at maturities close to six months and one year.
- The primary issue is carried out through auctions, where participants present their bids for the amount they want to purchase and the discount rate they are willing to pay.

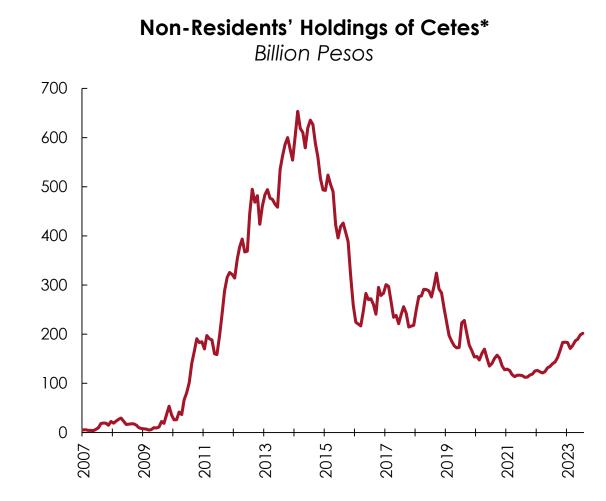
Source: Banco de México.

Cetes		
Face Value	10 MXN	
Term	28, 91, 182 y 365 days	
Coupon Frequency	Zero coupon	
Interest Rate	Discount Rate	
First Issuance (year)	1978	
Outstanding Amount* (billions of MXN)	1,469.9	
Outstanding Amount* (billions of USD)	85.5	

^{*} Last update: January 2nd with data as of December 20th, 2023.

BONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS WITH A FIXED INTEREST RATE

- In Mexico there is a broad secondary market for these securities. Today, it is possible to carry out outright sale and repo transactions as well as securities' lending transactions. CETES can also be used as underlying assets in derivative markets (futures and options in MEXDER and CME). CETES series are designed to be fungible.
- ID codes have eight characters. The first and second identify the security ("BI"), and the remaining six indicate the instrument's maturity date (year, month and day). The relevant number to identify a CETE is the maturity date.
- Two CETES issued on different dates but maturing on the same date will have the same identification code, and therefore cannot be recognized from one another.
- Example of series of CETES issued on August 24, 2000 for a 28-day term maturing on September 21, 2000: BI000921.



^{*} Last update: January 2nd with data as of December 20th, 2023.

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BONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS WITH A FIXED INTEREST RATE

- BONOS are issued for longer terms than one year. They pay coupons every six months and an interest rate determined upon issuance that remains fixed during the life of the instrument.
- Face value is 100 Mexican pesos (a hundred pesos) and can be issued for any term, if this term is a multiple of 182 days. Nevertheless, currently, these securities have been issued for 3-, 5-, 10-, 20- and 30-year terms across the curve.
- BONOS pay interest every six months (182 days).
- The interest rate paid is fixed by the Federal Government upon issuance and is specified to investors in the auction announcement. If a new reference is issued in the market, a prior notice is published.

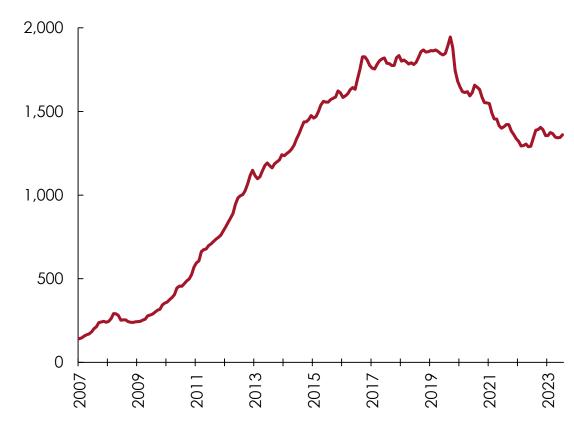
Bonos	
Face Value	100 MXN
Term	3, 5, 10, 20, 30 years
Coupon Frequency	182 days
Interest Rate	Fixed on emission
First Issuance (year)	2000
Outstanding Amount* (billions of MXN)	4,171.1
Outstanding Amount* (billions of USD)	242.7

^{*} Last update: January 2nd with data as of December 20th, 2023.

BONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS WITH A FIXED INTEREST RATE

- The primary issue is carried out through auctions, where participants present their bids for the amount they want to purchase and the price they are willing to pay through a market maker.
- In Mexico, there is a broad secondary market for these securities. Today, it is possible to carry out outright sale and repo transactions as well as securities' lending transactions. BONOS can also be used as underlying assets in derivative markets (futures and options), although up to now they have never been used as such.
- BONOS are **not fungible** unless they have the same interest rate. This is the reason the series is composed of eight characters. The first one identifies the security ("M"); second a blank space and the remaining six, the bond's **maturity date** (year, month and day).
- Example of series for MBONOS issued on March 15th, 2019 for a 5-year term, maturing in September 9th, 2024: M240905.

Non-Residents' Holdings of M Bono* Billion Pesos



^{*} Last update: January 2nd with data as of December 20th, 2023.

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UDIBONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS IN INVESTMENT UNITS

- Udibonos are investment instruments that protect the holder from unexpected changes on inflation rate. They are sold at long terms and pay interest every six months based on a real fixed interest rate which is determined on the issue date of each security.
- Face value is 100 UDIS (a hundred of investment units) and have been issued at terms of 3-, 5-, 10-, 20- and 30 -years.
- The securities pay interest in pesos every six months (182 days).
- The securities pay a fixed interest rate upon issuance of the securities, and it is specified to investors in the auction announcement.

Source: Banco de México.

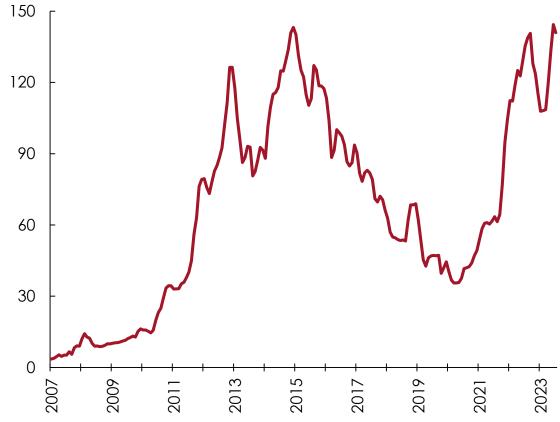
Udibonos		
Face Value	100 UDIS	
Term	3, 10, 30 years	
Coupon Frequency	182 days	
Interest Rate	Fixed on emission	
First Issuance (year)	1996	
Outstanding Amount* (billions of MXN)	3,068.6	
Outstanding Amount* (billions of USD)	178.6	

^{*} Last update: January 2nd with data as of December 20th, 2023.

UDIBONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS IN INVESTMENT UNITS

- For the purposes of the placement, interest payments and amortization, the conversion to domestic currency is made at the value of the UDI in the day that the corresponding payments are made. The UDIs values can be check in the Central Bank's website.
- Today, it is possible to carry out outright sale and repo transactions as well as securities lending transactions with these securities. They can also be used as underlying assets in derivative markets (futures and options), although up to now they have never been used as such.
- Udibonos are not fungible unless they pay the same interest rate. For this reason, the issuance identification code is made up of eight characters. The first identifies the security ("S"), second blank space and the remaining six, to indicate its maturity date (year, month, day).
- Example of an identification code for an Udibono issued on January 17, 2020, at a term of 3 years and maturing on November 16, 2023: **\$231116**.





^{*} Last update: January 2nd with data as of December 20th, 2023.

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UDIBONOS: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS IN INVESTMENT UNITS

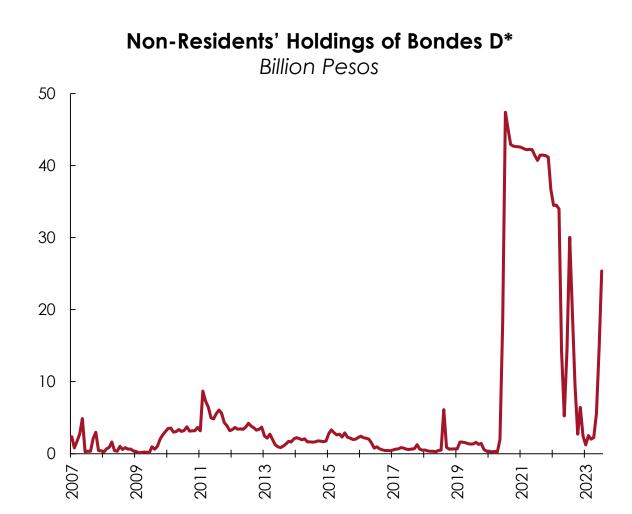
- The Mexican Federal Government decided to issue Mexican Federal Government Development Bonds (Bondes D) to improve the structure though floaters linked bonds.
- Face value is 100 Mexican pesos and can be issued for any term if the maturity is a multiple of 28 days. Currently, they are issued for 1 to 5-year terms.
- The securities accrue interest every month (28 consecutive days holidays not included).
- This instrument is broadly traded within credit institutions and brokerage houses trough outright sales and repo transactions.
- Fixing rate is known in the market as the weightedaverage inter-bank funding rate (BFR) and is calculated and published every day by the Central Bank on its website.

Bondes D		
Face Value	100 MXN	
Term	1, 3, 5 years	
Coupon Frequency	28 days	
Interest Rate	Overnight interbank funding rate	
First Issuance (year)	1987	
Outstanding Amount* (billions of MXN)	403.4	
Outstanding Amount* (billions of USD)	23.5	

^{*} Last update: January 2nd with data as of December 20th, 2023.

BONDES D: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS

- Bondes D series are designed to be fungible.
- Identification codes have eight characters. The first two identify the title ("LD") and the remaining six, the title's maturity date (year, month and day). The relevant number used to identify a Bondes D is the maturity date. This means that two Bondes D issued on different dates but maturing on the same date will have the same identification code, and therefore cannot be distinguished from one another.
- Example of series for Bondes D issued on July 27, 2006 for a 3-year term maturing July 23, 2009: LD090723.
- It is important to point that auctions are carried out at a clean price (with no accrued interest).
- The last auction of BONDES D was on Sep-2021.



^{*} Last update: January 2nd with data as of December 20th, 2023.

BONDES F: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS

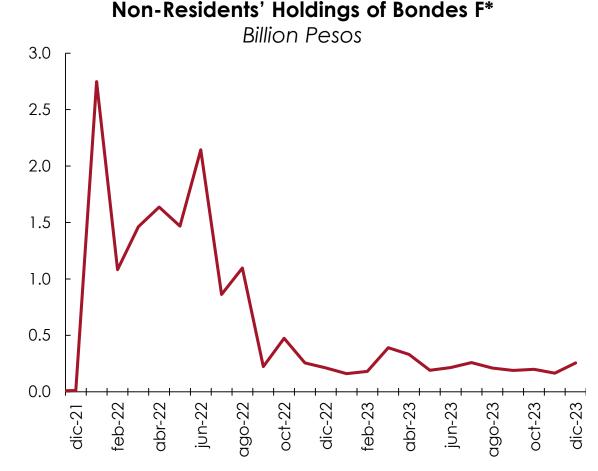
- Following best practices and recommendations released by the FSB and the BIS, Mexico decided to issue government debt securities referenced to new benchmark rates promoting transparency and consolidation of its debt local market.
- Bondes F series are designed to be fungible. Interest rate is known in the market as Overnight Equilibrium Interbank Interest Rate (TIIE) collateralized and is calculated and published every day by the Central Bank on its website.
- Face value is 100 Mexican pesos and can be issued for any term if the maturity is a multiple of 28 days. Currently, they are issued for 1 to 5-year terms.
- These features are similar to BONDES D. Main difference is the benchmark rate used to accrue interests, in arrears.
- The securities accrue interest every month (28 consecutive days holidays not included).

Bondes F		
Face Value	100 MXN	
Term	1 to 5 years	
Coupon Frequency	28 days	
Interest Rate	Overnight Equilibrium interbank interest rate (TIIE) collateralized	
First Issuance (year)	2021	
Outstanding Amount* (billions of MXN)	2,011.3	
Outstanding Amount* (billions of USD)	117.0	

^{*} Last update: January 2nd with data as of December 20th, 2023.

BONDES F: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS

- Identification codes have eight characters. The first two identify the title ("LF") and the remaining six, the title's maturity date (year, month and day). The relevant number used to identify a Bondes F is the maturity date. This means that two Bondes F issued on different dates but maturing on the same date will have the same identification code, and therefore cannot be recognized from one another.
- BONDES F was auctioned starting in October 2021.
- It's expected that over time this instrument will entirely replace the issuance of BONDES D.



^{*} Last update: January 2nd with data as of December 20th, 2023.

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BONDES G: MEXICAN FEDERAL GOVERNMENT DEVELOPMENT BONDS

- Mexico decided to issue public debt securities aligned with environmental, social and corporate governance criteria, as part of the strategy to comply with the UN Sustainable Development Goals (SDG).
- Face value is 100 Mexican pesos and can be issued for any term if the maturity is a multiple of 28 days. Currently, they are issued for 1 to 10-year terms.
- The securities accrue interest every month (28 consecutive days holidays not included).
- Identification codes have eight characters. The first two identify the title ("LG") and the remaining six, the title's maturity date (year, month and day). The relevant number used to identify a Bondes G is the maturity date. This means that two Bondes G issued on different dates but maturing on the same date will have the same identification code, and therefore cannot be recognized from one another.

Bondes G		
Face Value	100 MXN	
Term	1 to 10 years	
Coupon Frequency	28 days	
Interest Rate	Overnight Equilibrium interbank interest rate (TIIE) collateralized	
First Issuance (year)	2022	
Outstanding Amount* (billions of MXN)	75.0	
Outstanding Amount* (billions of USD)	4.4	

^{*} Last update: January 2nd with data as of December 20th, 2023.

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HEDGE OF GOVERNMENT SECURITIES: MEXDER AND CME

- The local futures market will give coverage of risk and anticipate interest rate movements, because in the BONDES F, the final coupon calculations will be made in reference to overnight F-TIIE rates to each day in the coupon period.
- CME and MEXDER have mirrored in the future contracts F-TIIE. This will come in handy by using the futures to effectively hedge changing overnight F-TIIE.
- The local futures market will have a positive influence as it has a curve with collateral in pesos that reflects interbank market conditions, taking overnight bank funding as a reference. This will benefit investors and open doors to new participants.

Source: Banco de México.

Timeline		
January 2021	BANXICO publish daily rate of F-TIIE.	
February 2021	Launch of 1 month Future contract of F-TIIE in MEXDER.	
May 2021	Launch of monthly F- TIIE Future contact in CME.	
October 2021	Launch of new BONDES F	
May 2022	Launch of new BONDES G	

^{*} Last update: January 2nd with data as of December 20th, 2023.

REFERENCES

- <u>Technical description for Cetes (Mexican Federal Treasury Certificates)</u>
- <u>Technical description for Bonos (Federal Government Development Bonds with a fixed interest rate)</u>
- <u>Technical description for Udibonos (Federal Government Development Bonds denominated in inflation-indexed investment units, UDIS)</u>
- Technical description for Bondes D (Federal Government Development Bonds)
- <u>Technical description for Bondes F (Federal Government Development Bonds TIIE)</u>
- <u>Technical description for Bondes G (Federal Government Development Bonds)</u>

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