Government Securities

Technical Description

Last update: March 6th, 2023



SECRETARÍA DE HACIENDA Y CRÉDITO PÚBLICO



MEXICAN GOVERNMENT SECURITIES

CETES

BONOS

UDIBONOS

BONDES D & BONDES F

BONDES G

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 677 billion, only behind Brazil^{/1}.

Mexico has become the **first country in the world to issue a Sovereign Sustainable Development Goals (SDGs) Bond**. This is an important step in our Mexico's commitment to the achievement of the SDGs and major advance for development finance.



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



- ► The Environmental Finance granted Mexico with the **2022 Award for Innovation**/2, second year in a row.
- Mexico was awarded Most impressive Latin American Sovereign Issuer for a second year in a row/3.
- ▶ Bond and Loans recognized Mexico with the **2021 Liability Management Deal of the Year** for innovation in the refinancing transaction 1/4.
- For first time in more than 10 years Mexico was recognized by International Financing Review (IFR) with **Niche-Market Bond award**/5.

^{/1} As of the third quarter of 2022. BIS Debt Securities statistics.

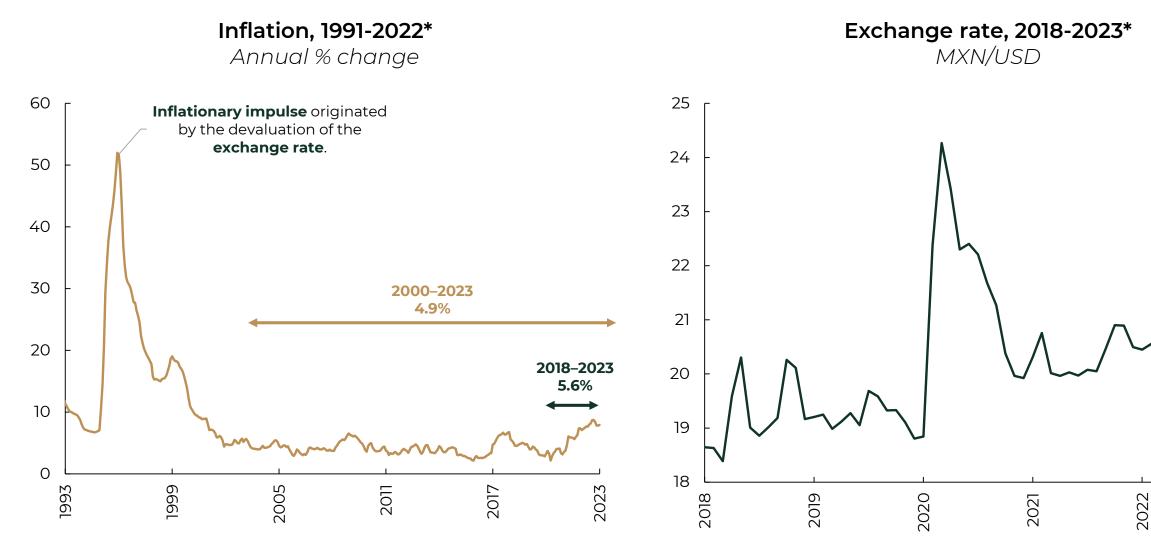
^{/2} Environmental Finance Bond Awards 2022.

^{/3} GlobalCapital Bond Awards 2021.

¹⁴ Bonds & Loans: Latin America & Caribbean Awards.

^{/5} IFR Awards 2021.

Overview: inflation and exchange rate



Source: Banco de México. * Latest data as of January 2023. Source: Banco de México.

* Latest data as of March 6th, 2023.

2023

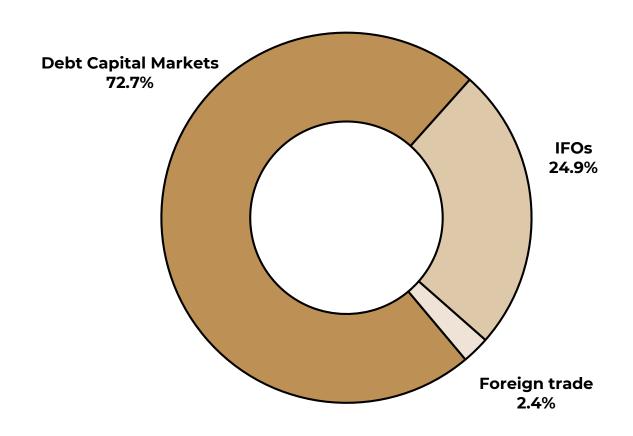
Overview: external federal debt

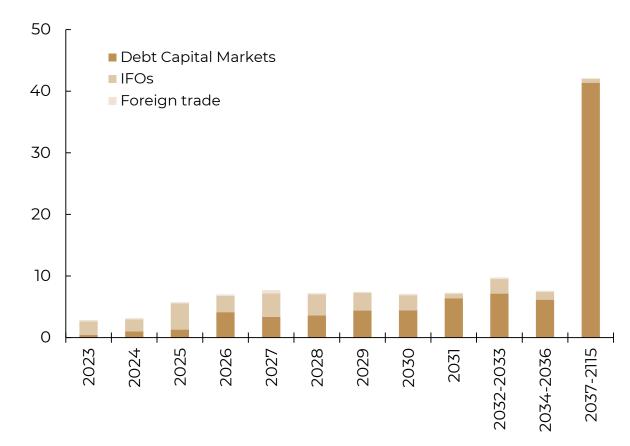
External debt distribution

% Total

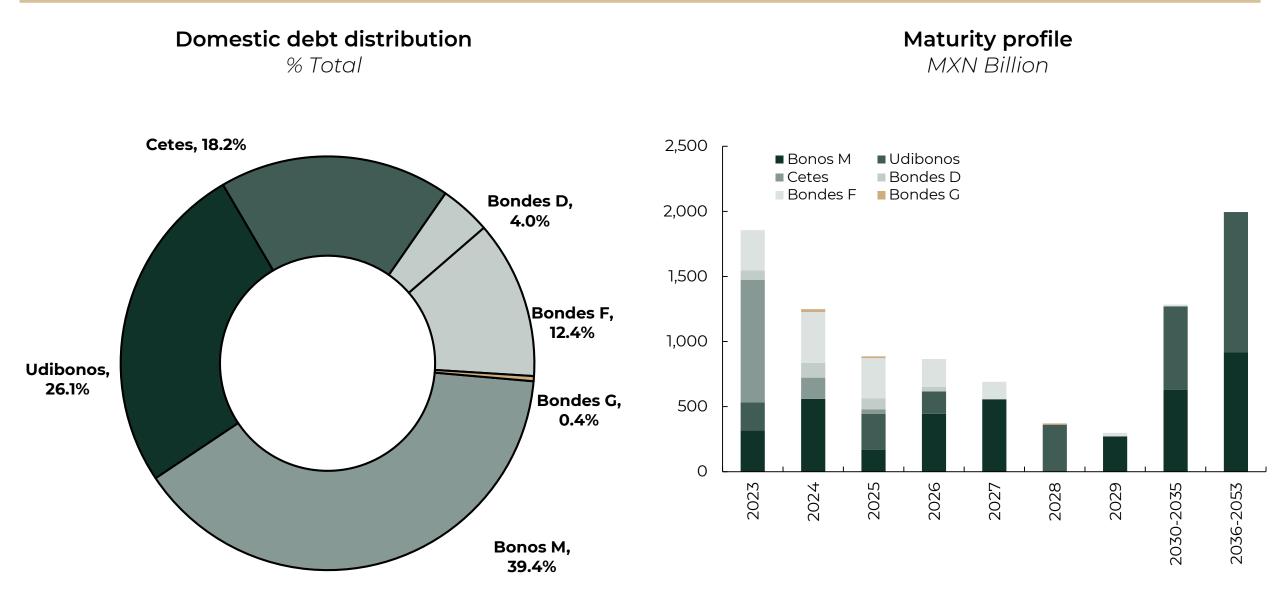
Maturity profile

USD Billion

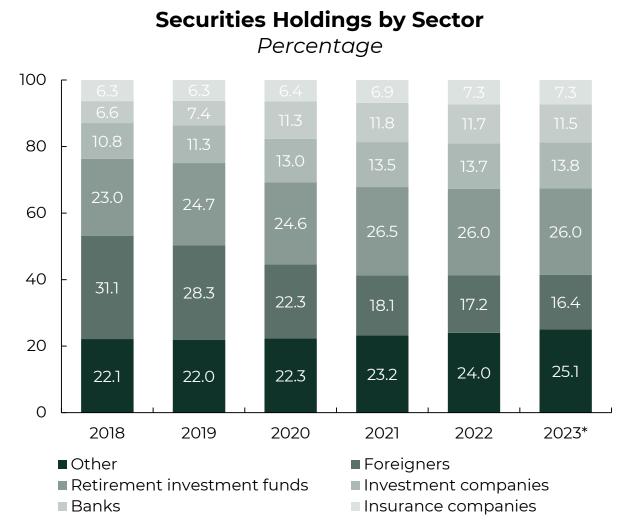




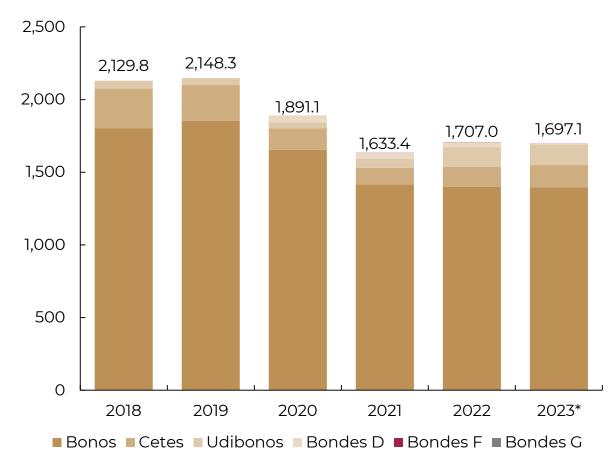
Overview: federal domestic debt



Overview: holding of securities



Holding of Instruments by Foreigners MXN Billion



Source: Banco de México.

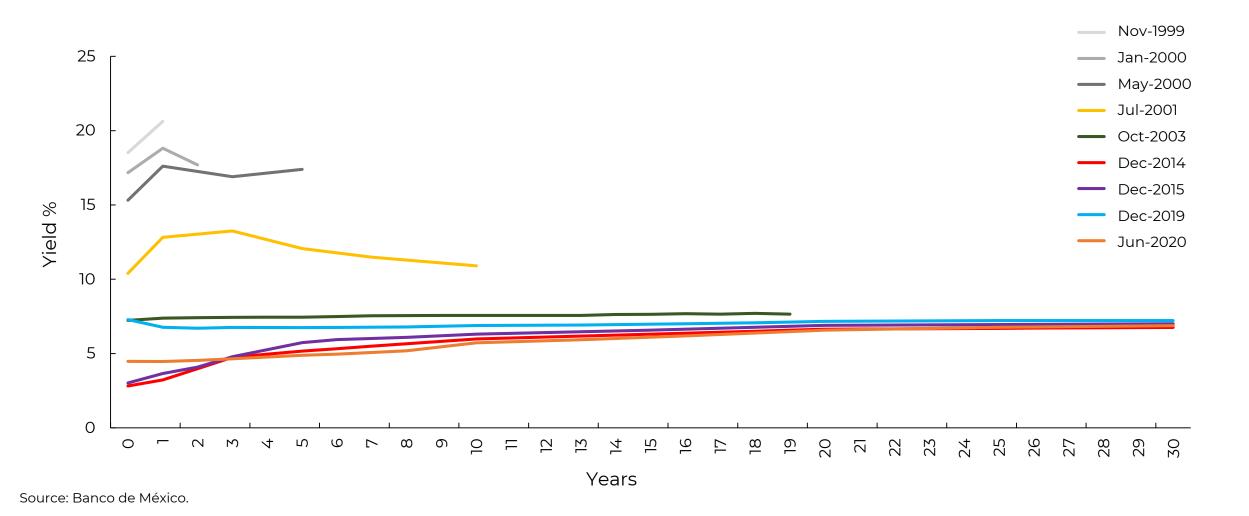
Source: Banco de México.

* Last update: March 6th with data as of February 23rd, 2023.

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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.

MEXICAN GOVERNMENT SECURITIES

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CETES (Mexican Federal Government Treasury Certificates)

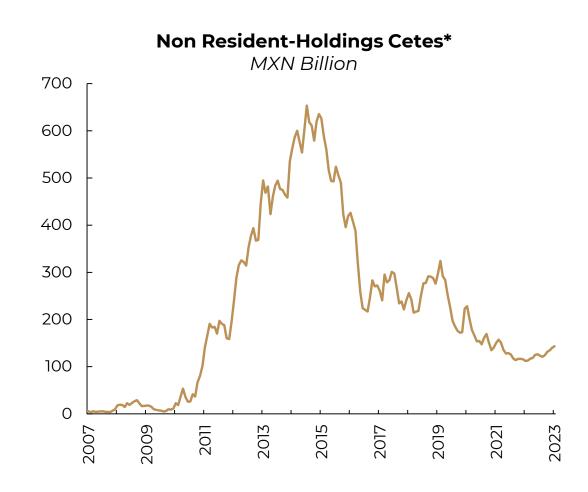
- The Mexican Federal Treasury Certificates (CETES) are the oldest debt instrument issued by the Federal Government. These securities are zero-coupon bonds and are traded at a discount.
- Face value is 10 Mexican pesos. Currently, CETES are issued for 28- and 91-day terms, and at maturities close to 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.

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)	1,376.1
Outstanding Amount* (billions of USD)	73.9

^{*} Last update: March 6th with data as of February 23rd, 2023.

CETES (Mexican Federal Government Treasury Certificates)

- 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.**



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BONOS: Mexican Federal Government Development Bonds with a fixed interest rate

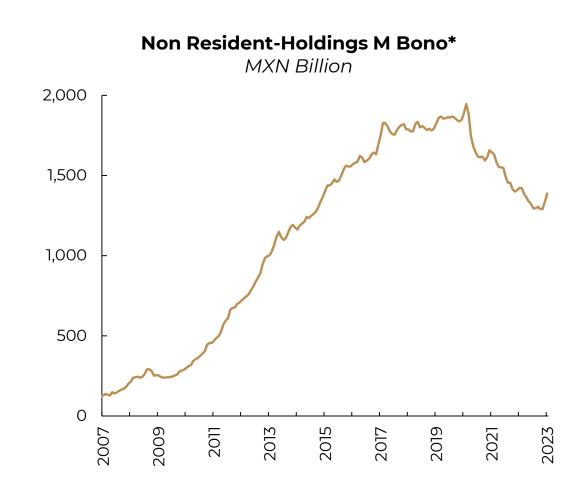
- BONOS are issued for longer terms than one year. They pay coupons every six months and an interest rate determined upon issuance that remains fixed during the life of the instrument.
- Face value is 100 Mexican pesos (a hundred pesos) and can be issued for any term, if this term is a multiple of 182 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)	3,872.0
Outstanding Amount* (billions of USD)	208.0

^{*} Last update: March 6th with data as of February 23rd, 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.



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UDIBONOS: Mexican Federal Government development bonds in investment units

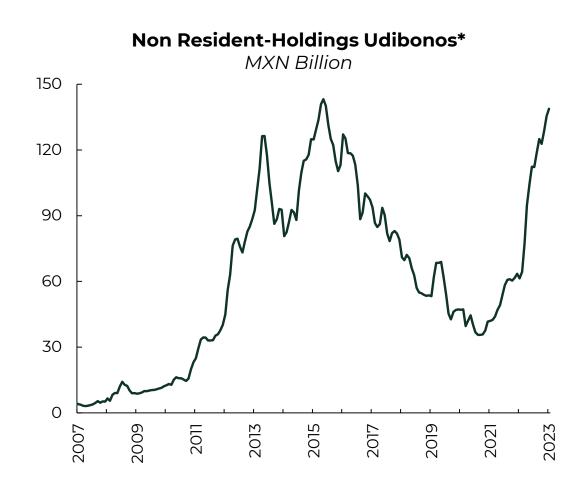
- Udibonos are investment instruments that protect the holder from unexpected changes on inflation rate. They are sold at long terms and pay interest every six months based on a real fixed interest rate which is determined on the issue date of each security.
- Face value is 100 UDIS (a hundred of investment 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.

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)	2,747.5
Outstanding Amount* (billions of USD)	147.6

^{*} Last update: March 6th with data as of February 23rd, 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 <u>Central Bank's website</u>.
- 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.



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BONDES D: Mexican Federal Government development bonds

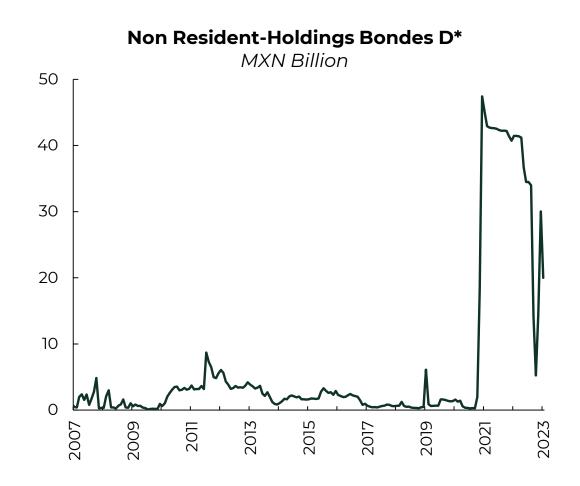
- The Mexican Federal Government decided to issue Bonos de Desarrollo del Gobierno Federal (Bondes D) to improve the structure though floaters linked bonds.
- Face value is 100 Mexican pesos and can be issued for any term if the maturity is a multiple of 28 days. Currently, they are issued for 1 to 5-year 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)	577.8
Outstanding Amount* (billions of USD)	31.0

^{*} Last update: March 6th with data as of February 23rd, 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 will be on Sep-2021.



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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)	1,721.8
Outstanding Amount* (billions of USD)	92.5

^{*} Last update: March 6th with data as of February 23rd, 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 will be auctioned starting in October of this year. The Ministry of Finance will promote the early liquidation of BONDES D through swap transactions for BONDES F, which will be announced in due course.
- It's expected that over time this instrument will entirely replace the issuance of BONDES D.

MEXICAN GOVERNMENT SECURITIES

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BONDES G

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)	45.0
Outstanding Amount* (billions of USD)	2.4

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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.

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

Technical information on government securities

- <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>
- Technical description for Bondes G (Federal Government Development Bonds)

HACIENDA

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