

IMPORTANT NOTE: All issues and themes discussed can only be attributed to the presenter, and therefore do not represent the official views of the Bank of Mexico.

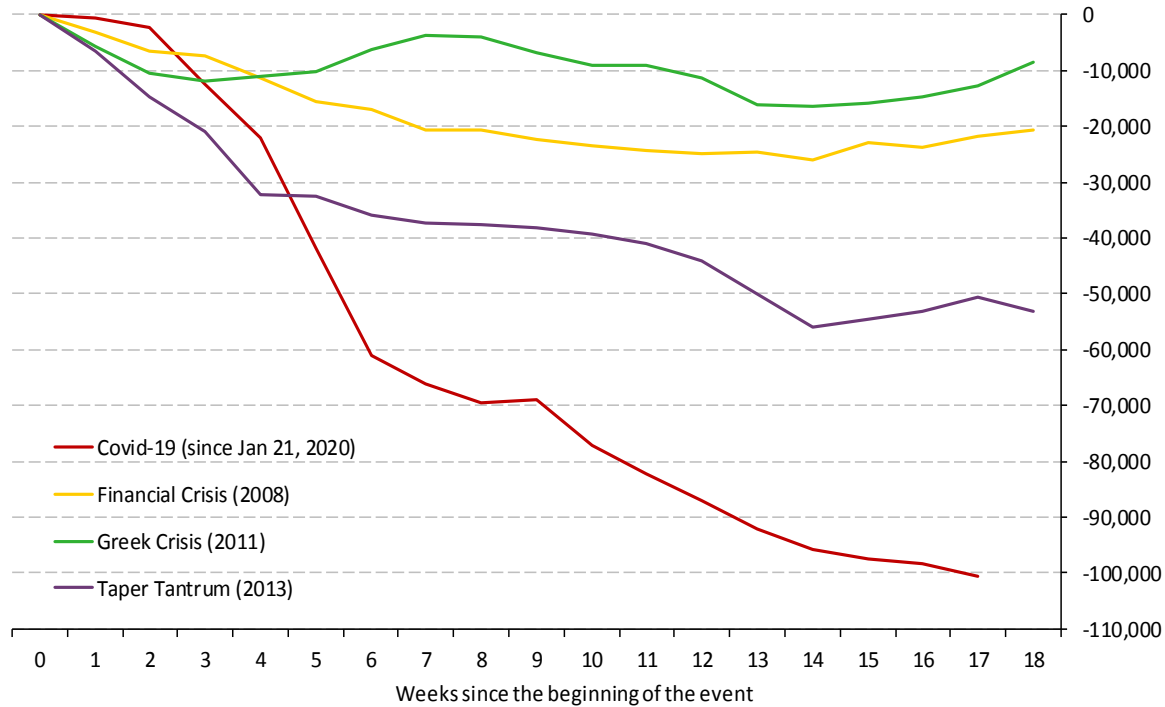
FX Market Conditions in EM markets

Mexican Foreign Exchange Committee

June 2020

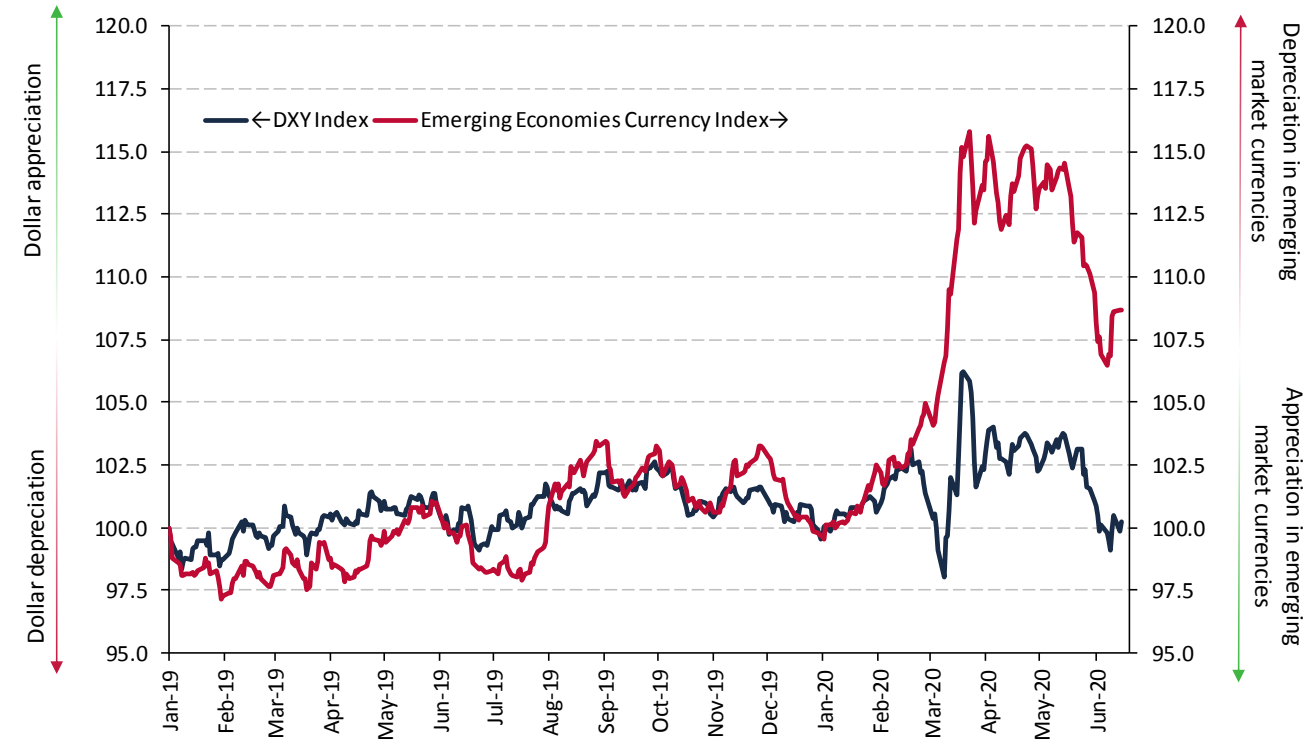


Accumulated Portfolio Flows to Emerging Markets (Fixed Income and Equity) during Risk Events Millions of US dollars



Source: EPFR.

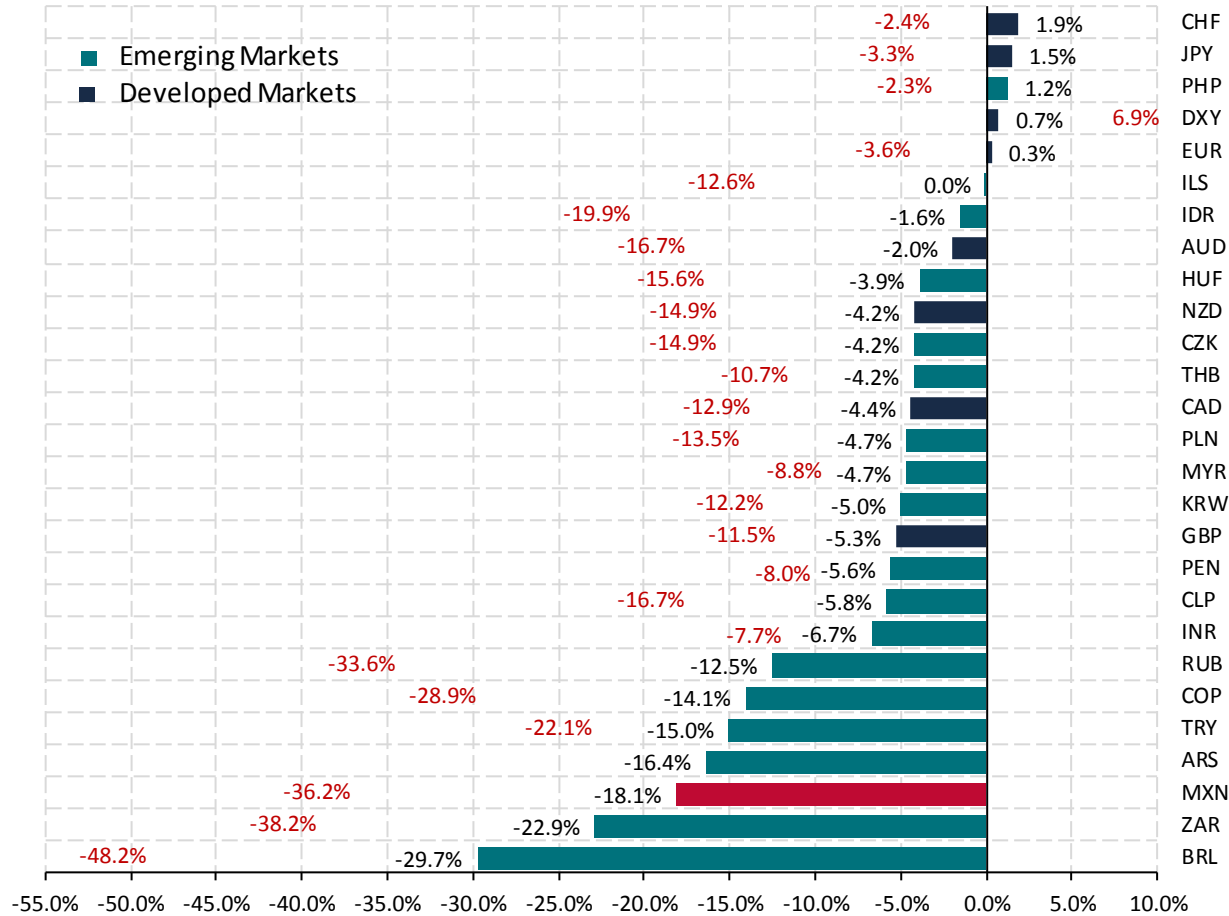
EM Currencies Index and DXY Index Index (100 = Jan 2019)



The EM currency index includes: Peru, Philippines, Poland, Hungary, South Korea, South Africa, Russia, Brazil, Colombia, Chile, Malaysia, Czech Republic, India and Mexico.

Source: Bank of Mexico with data from Bloomberg

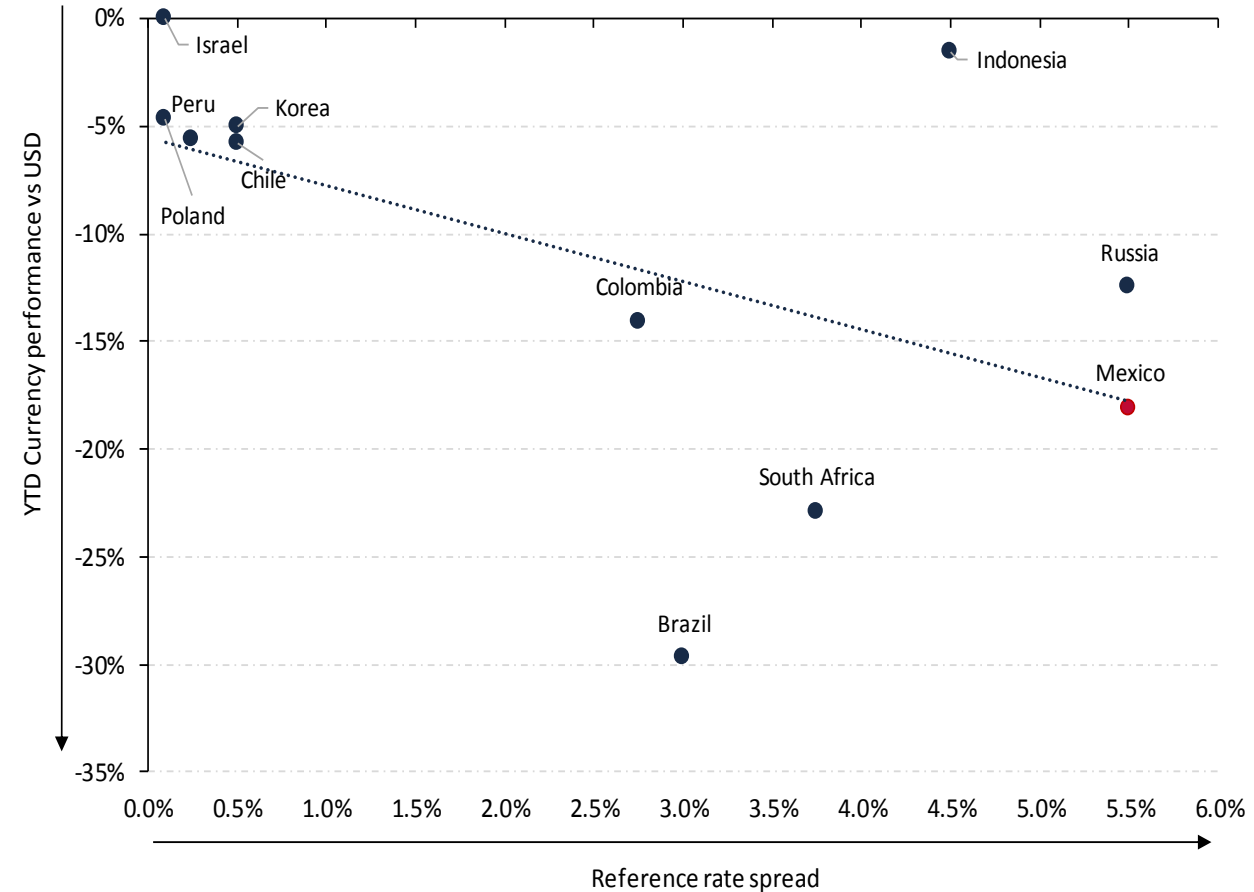
Performance of Selected Currencies in 2020 Percentage



Note: Red figures represent the largest YTD depreciation against the USD for each currency during 2020. For the DXY Index, the red figure represents the largest appreciation.

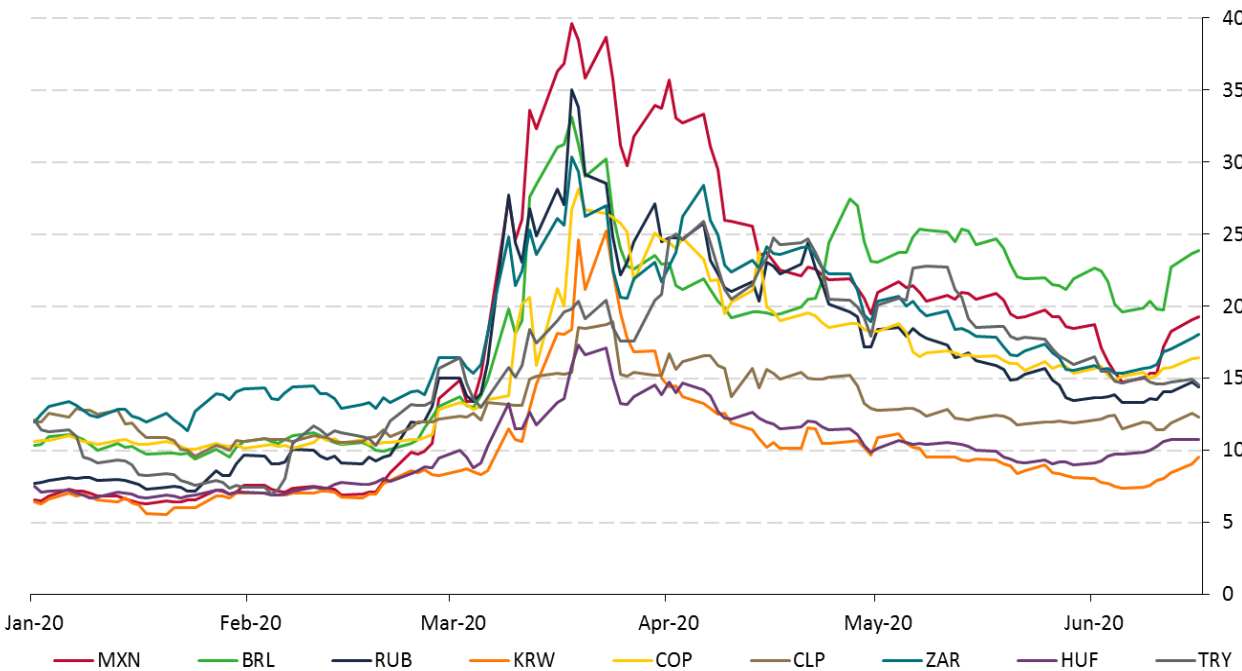
Source: Calculations made by Bank of Mexico with Bloomberg data.

Emerging Markets Currency Performance during 2020 and Reference Rate Spread Percentage



Source: Bank of Mexico with data from Bloomberg.

Implied Volatility for 1-month ATM Options for Selected EM Currencies Percentage



Source: Bloomberg.

Foreign exchange market interventions conducted by EM central banks due to the COVID-19 crisis

Foreign exchange interventions in EMEs			
	In spot	In derivatives	Credit lines
Mexico	No	Yes	Yes
Brazil	Yes	Yes	Yes
Colombia	No	Yes	No
Chile	No	Yes	No
Peru	Yes	Yes	No
Russia	Yes	No	No
Turkey	No	Yes	No
Israel	No	Yes	No
India	No	Yes	No
Indonesia	Yes	Yes	No
South Korea	No	No	Yes

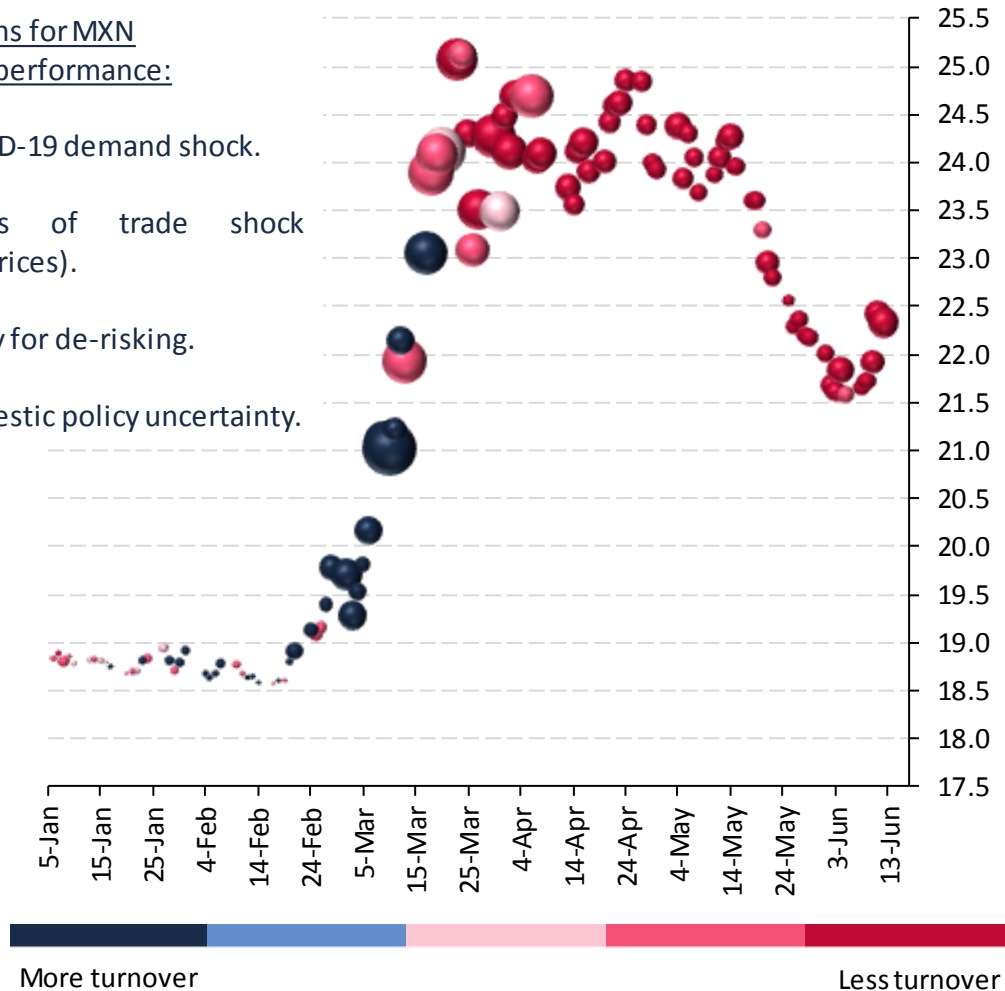
Source: Information provided by the corresponding central bank, Bloomberg and Refinitiv.

Mexican Peso Exchange Rate and Trading Conditions

Mexican pesos per US dollar

Reasons for MXN underperformance:

- COVID-19 demand shock.
- Terms of trade shock (oil prices).
- Proxy for de-risking.
- Domestic policy uncertainty.

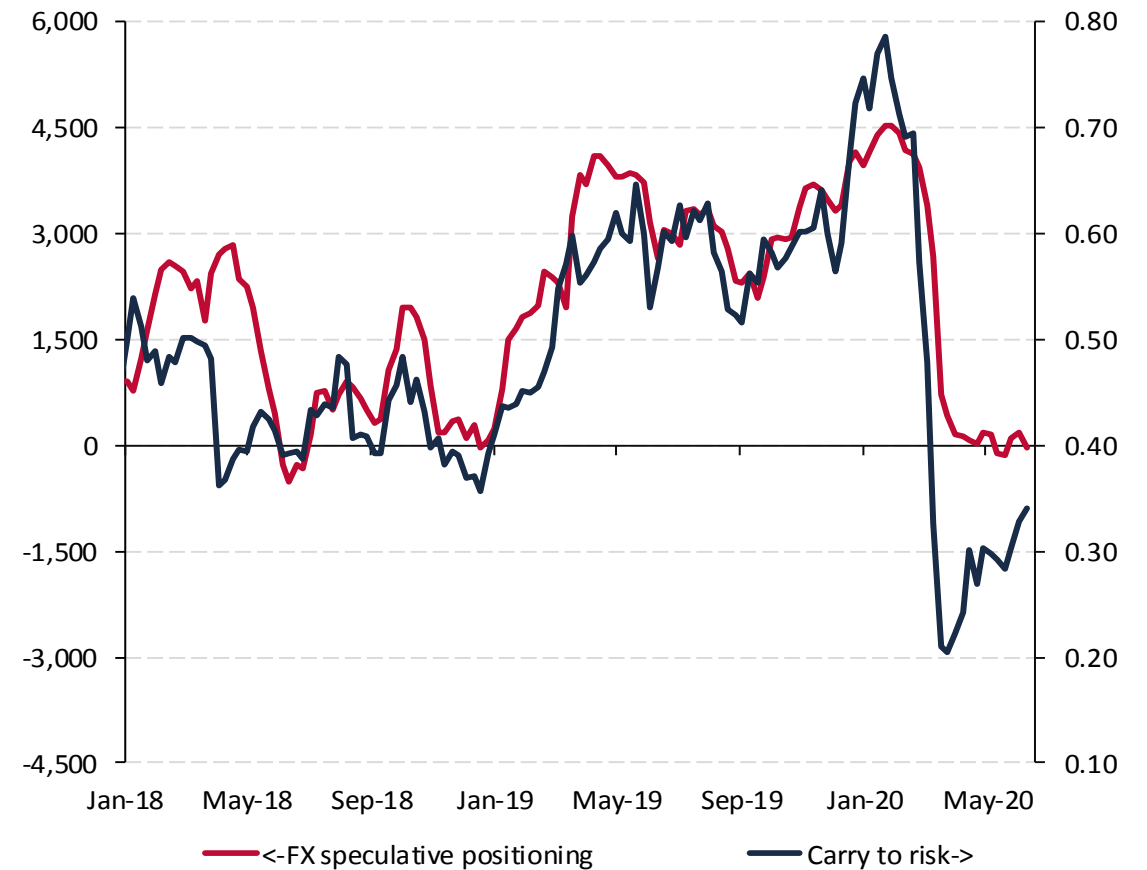


Note: Spot trade volume is classified in quintiles according to historical data since January 2017 until today. The size of the sphere is determined by the level of intraday realized volatility.

Source: Bank of Mexico calculations using internal and Bloomberg data.

Speculative Positioning and Carry-to-risk in the Mexican Peso

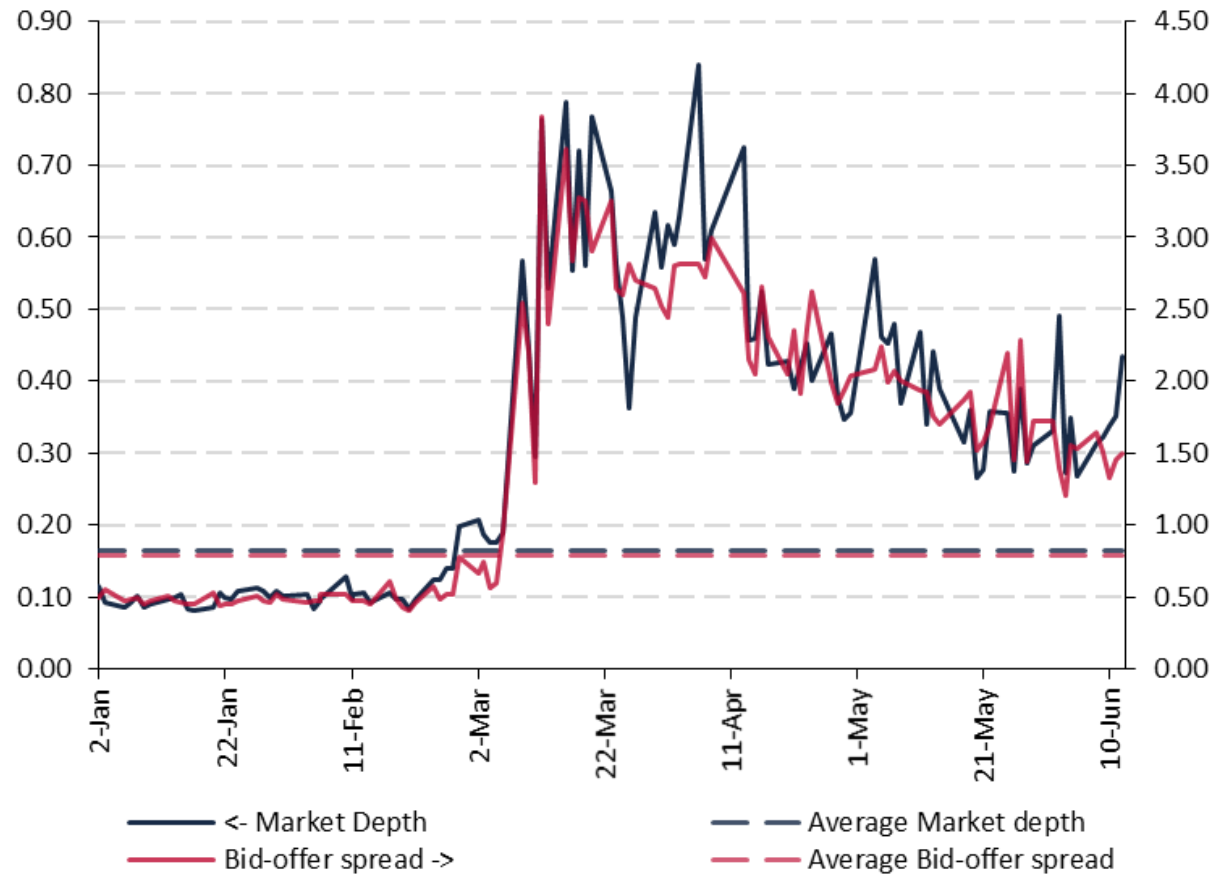
Millions of US Dollars; Index



Source: Banco de México using Bloomberg data, CME

Mexican peso Trading Conditions

Mexican peso cents



Source: Bank of Mexico.

Historical 1-month implied volatility in USD/MXN

ATM options
Percentage

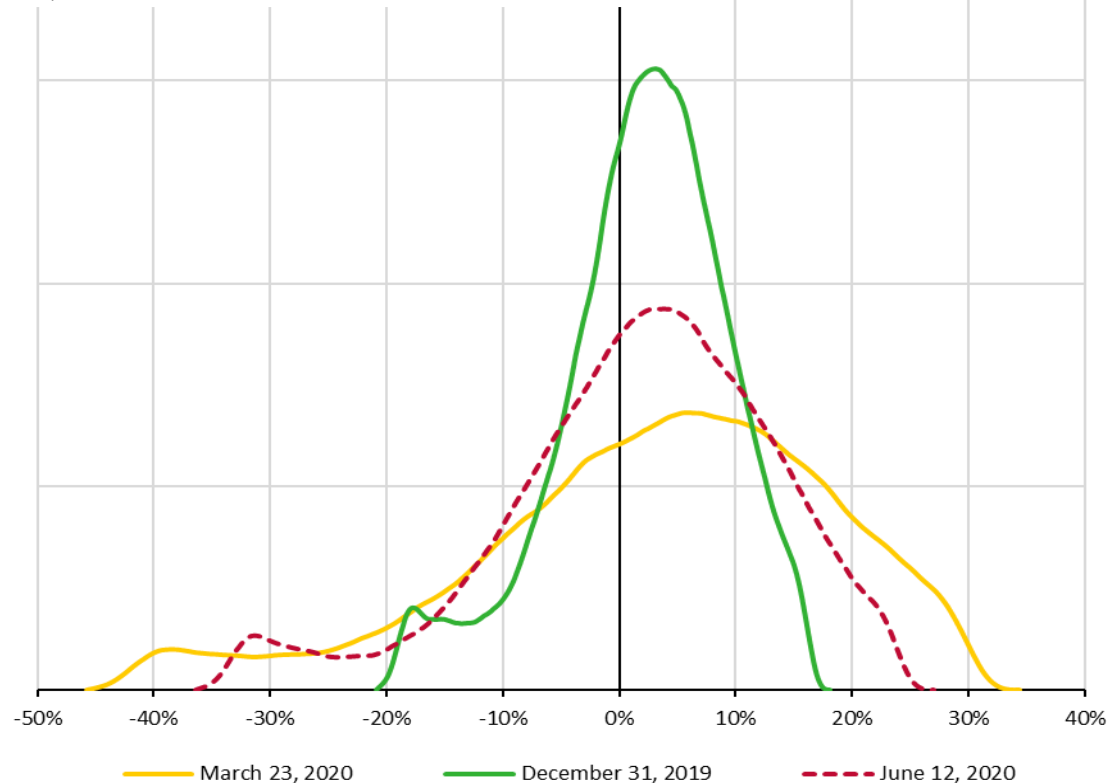


Source: Bloomberg

FX Option Implied Distribution of US dollar returns of an investment in the Mexican peso¹

Density

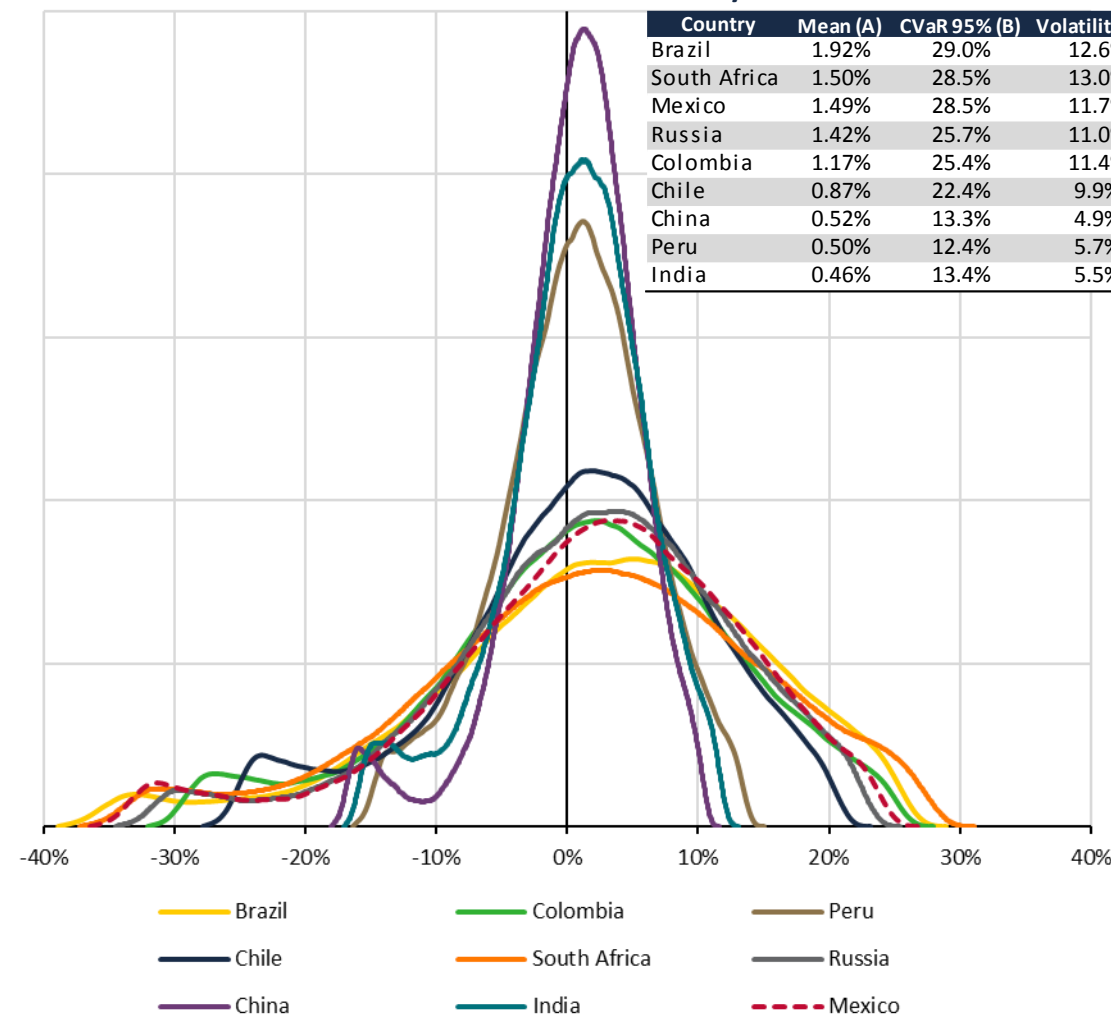
Date	Mean (A)	CVaR 95% (B)	Volatility (C)	A/B	A/C
March 23, 2020	2.64%	35.6%	15.4%	7.4%	17.1%
December 31, 2019	1.99%	15.8%	7.2%	12.6%	27.9%
June 12, 2020	1.49%	28.5%	11.7%	5.3%	12.7%



FX Option Implied Distribution of US dollar returns of selected EM investments¹

Density

Country	Mean (A)	CVaR 95% (B)	Volatility (C)	A/B	A/C
Brazil	1.92%	29.0%	12.6%	6.6%	15%
South Africa	1.50%	28.5%	13.0%	5.3%	12%
Mexico	1.49%	28.5%	11.7%	5.3%	13%
Russia	1.42%	25.7%	11.0%	5.5%	13%
Colombia	1.17%	25.4%	11.4%	4.6%	10%
Chile	0.87%	22.4%	9.9%	3.9%	9%
China	0.52%	13.3%	4.9%	3.9%	11%
Peru	0.50%	12.4%	5.7%	4.0%	9%
India	0.46%	13.4%	5.5%	3.5%	8%



Source: Bank of Mexico with Bloomberg data. 1/ Assumes an investment in a 1 year time deposit. The distributions are obtained from the volatility smile of one year options of the CCYUSD cross, using the Breeden-Litzenberger methodology and Epanechnikov Kernels.



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