



# After the pandemic: Are we going back to normal?

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Banco de la República

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# AGENDA

Extraordinary measures over the crisis

Adjustments post-pandemic

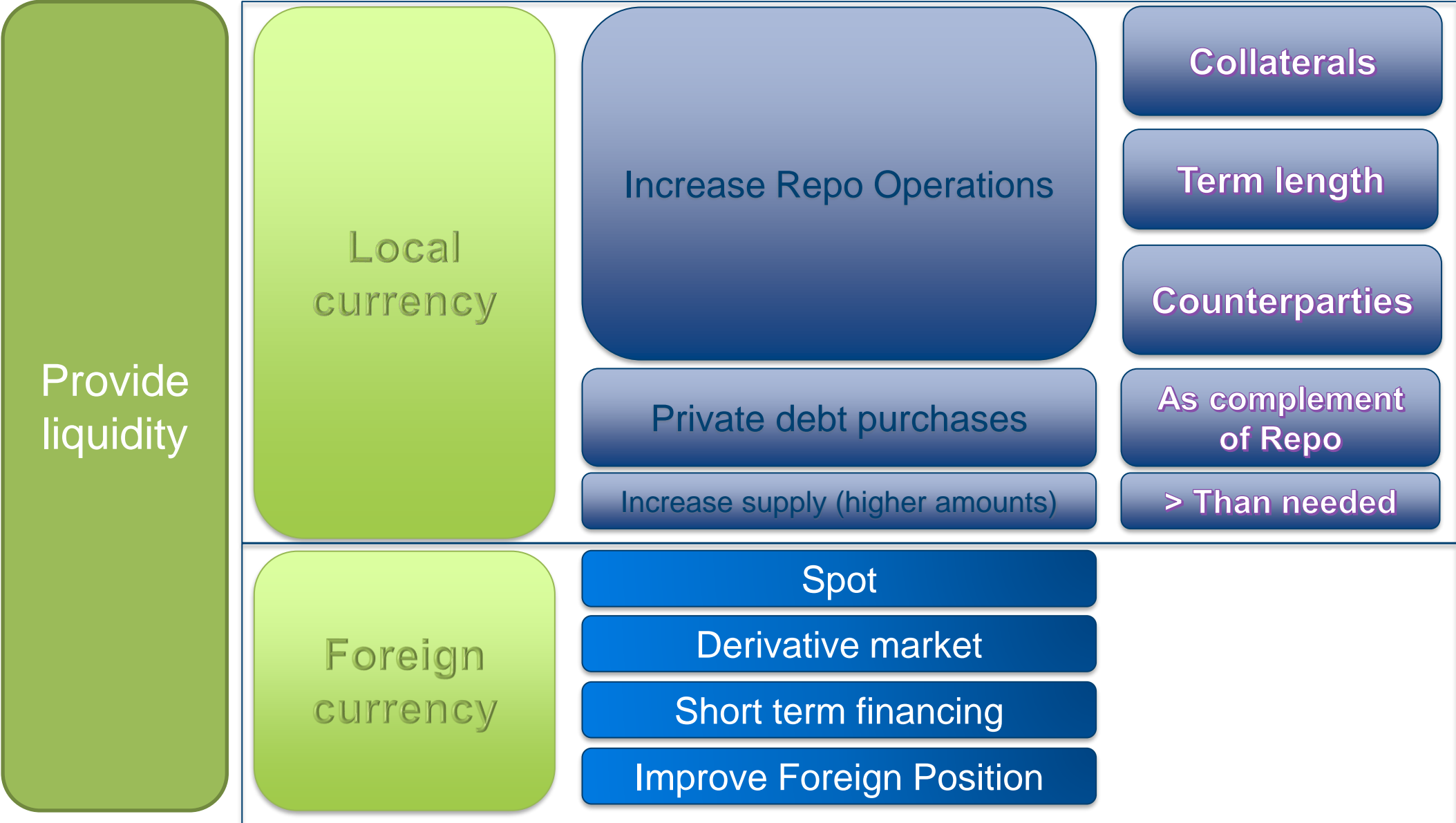
New developments and challenges

Conclusions

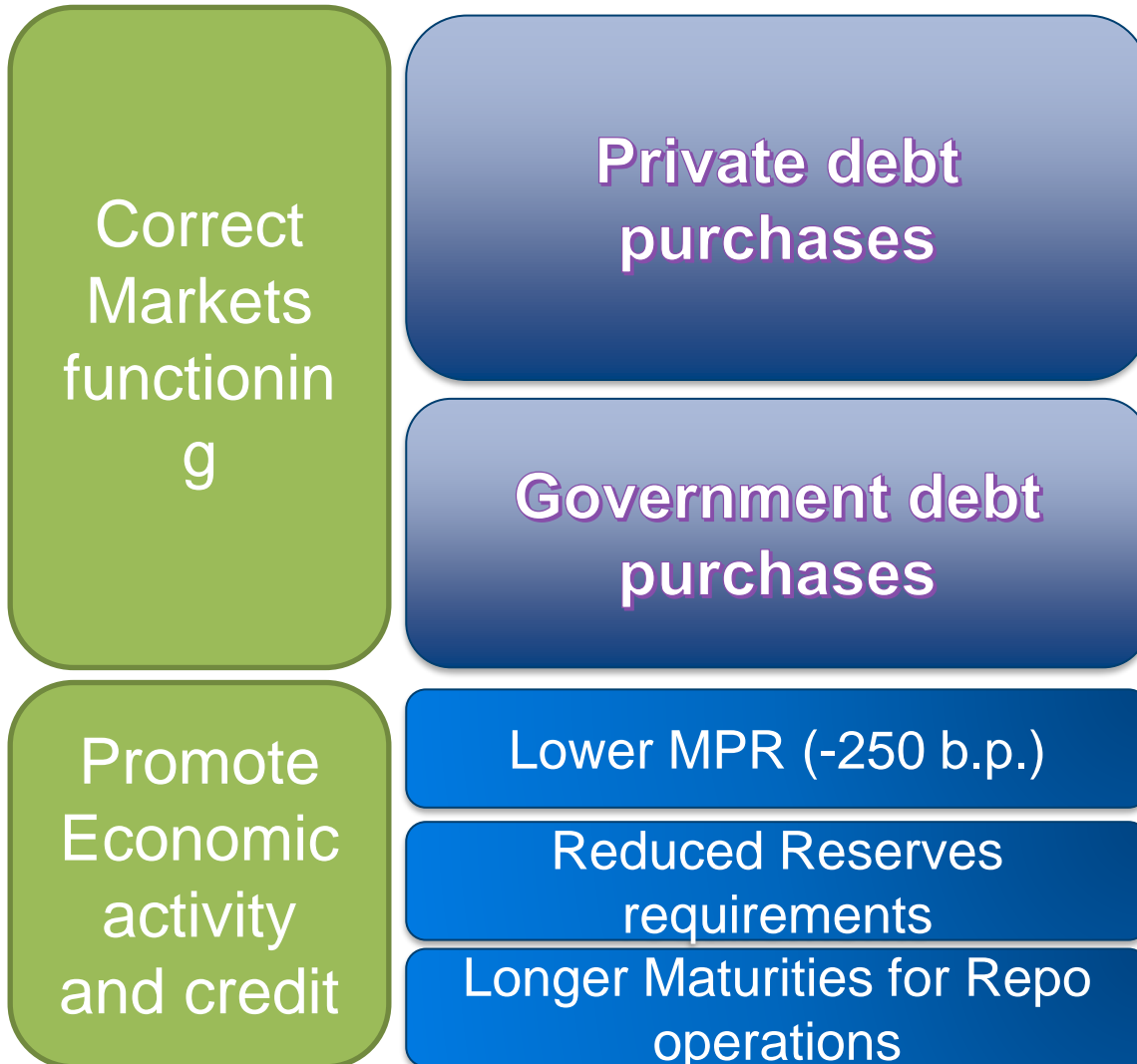
## As response to the economic crisis resulting from COVID-19, Banrep started using several resources and tools pursuing the following:

- Rapid response with significant impact
- Encourage credit dynamics
- Improve confidence
- Ensure liquidity
- Support growth and economic activity
- Provide support for an adequate functioning in:
  - Payment System
  - Foreign Exchange Market
  - Fixed Income Market
  - Credit Market

Several measures were implemented to achieve the former goals. The central bank worked in three main dimensions.



# Several measures were implemented to achieve the former goals. The central bank worked in three dimensions.

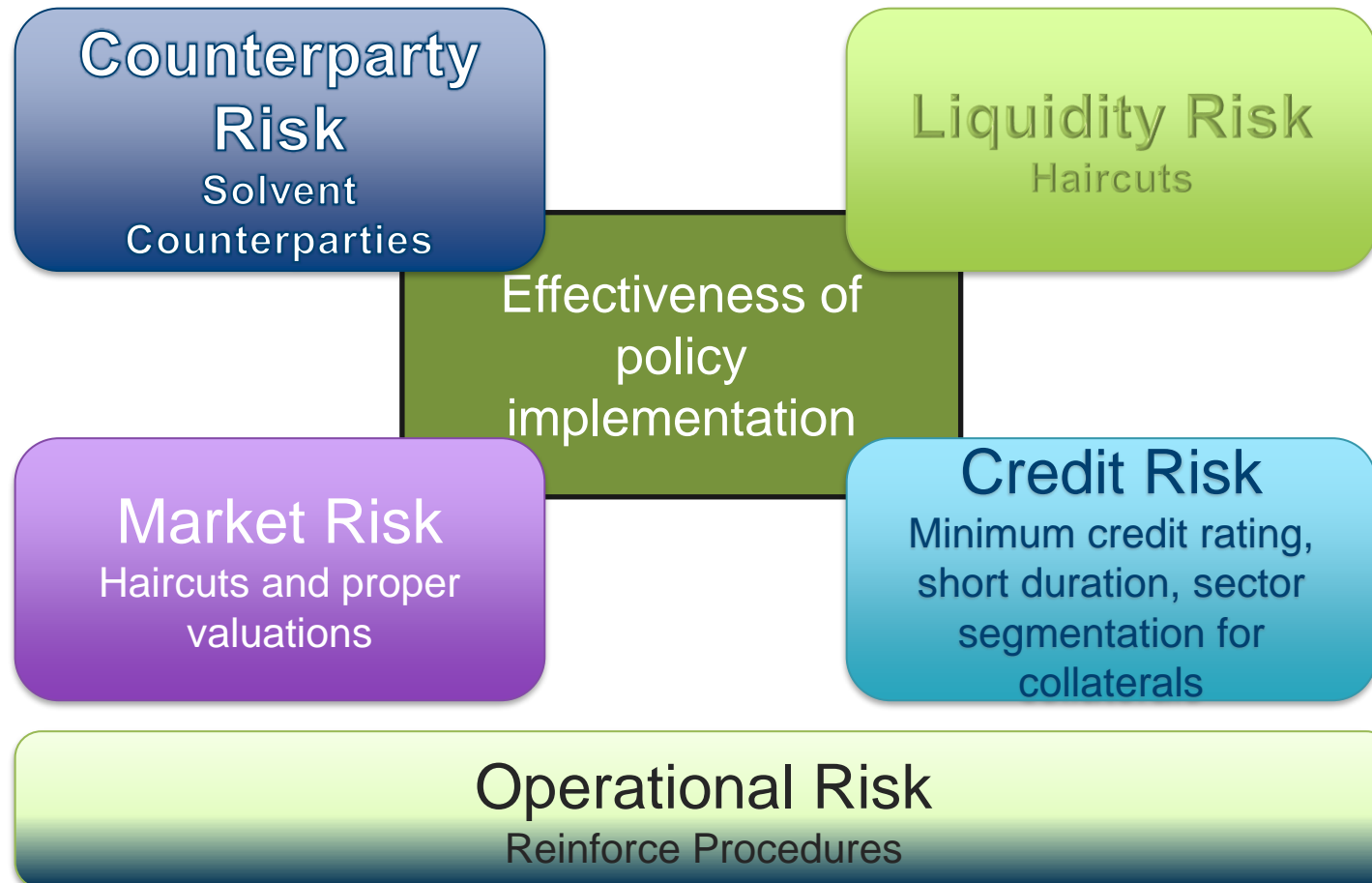


From 4,25% to 1,75%.

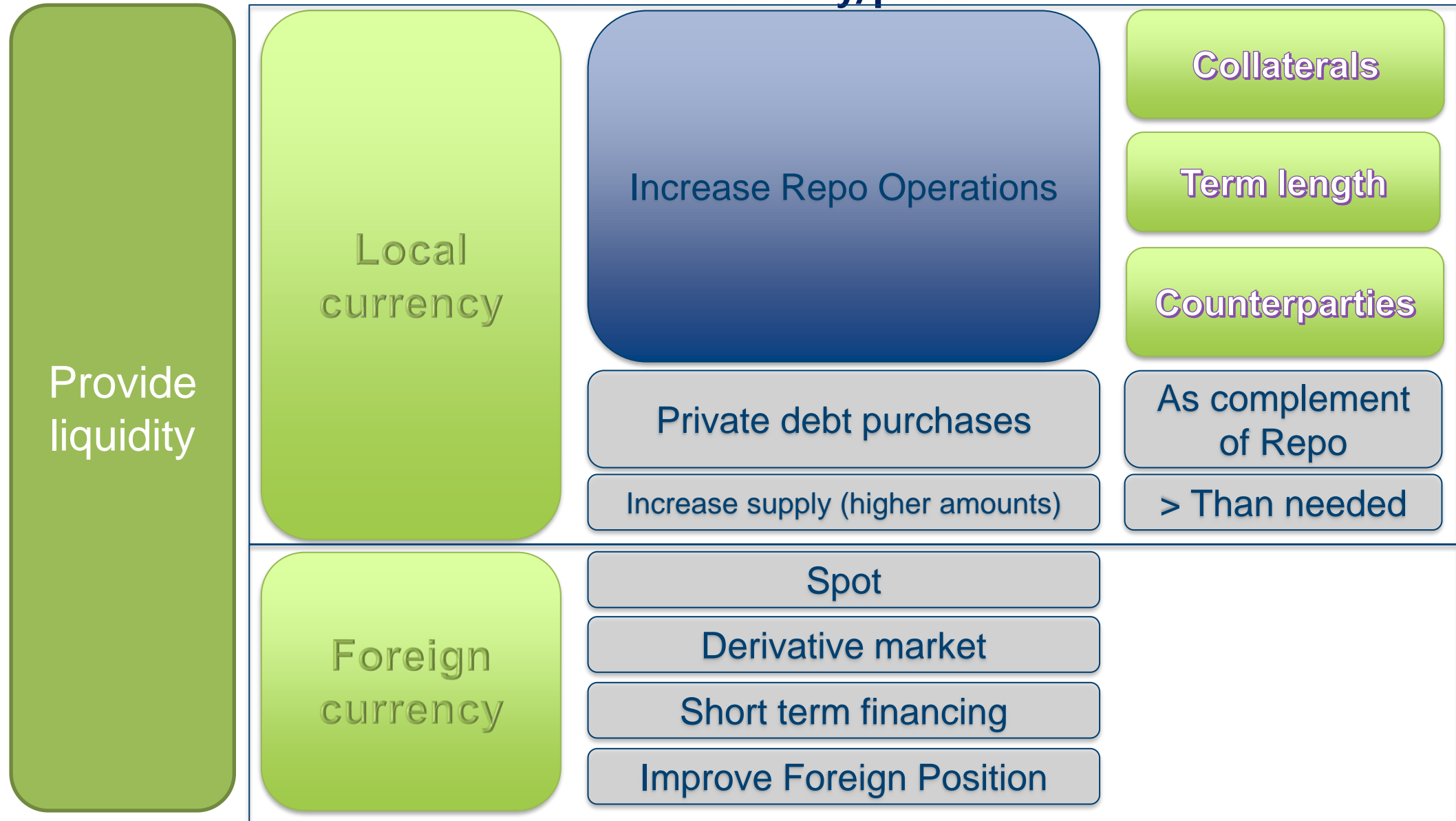
-2%. 7% to 5%. COP \$ 10 trillion (9.4% of the monetary base).

Using public debt (9 and 12 months) and loans (6 months)

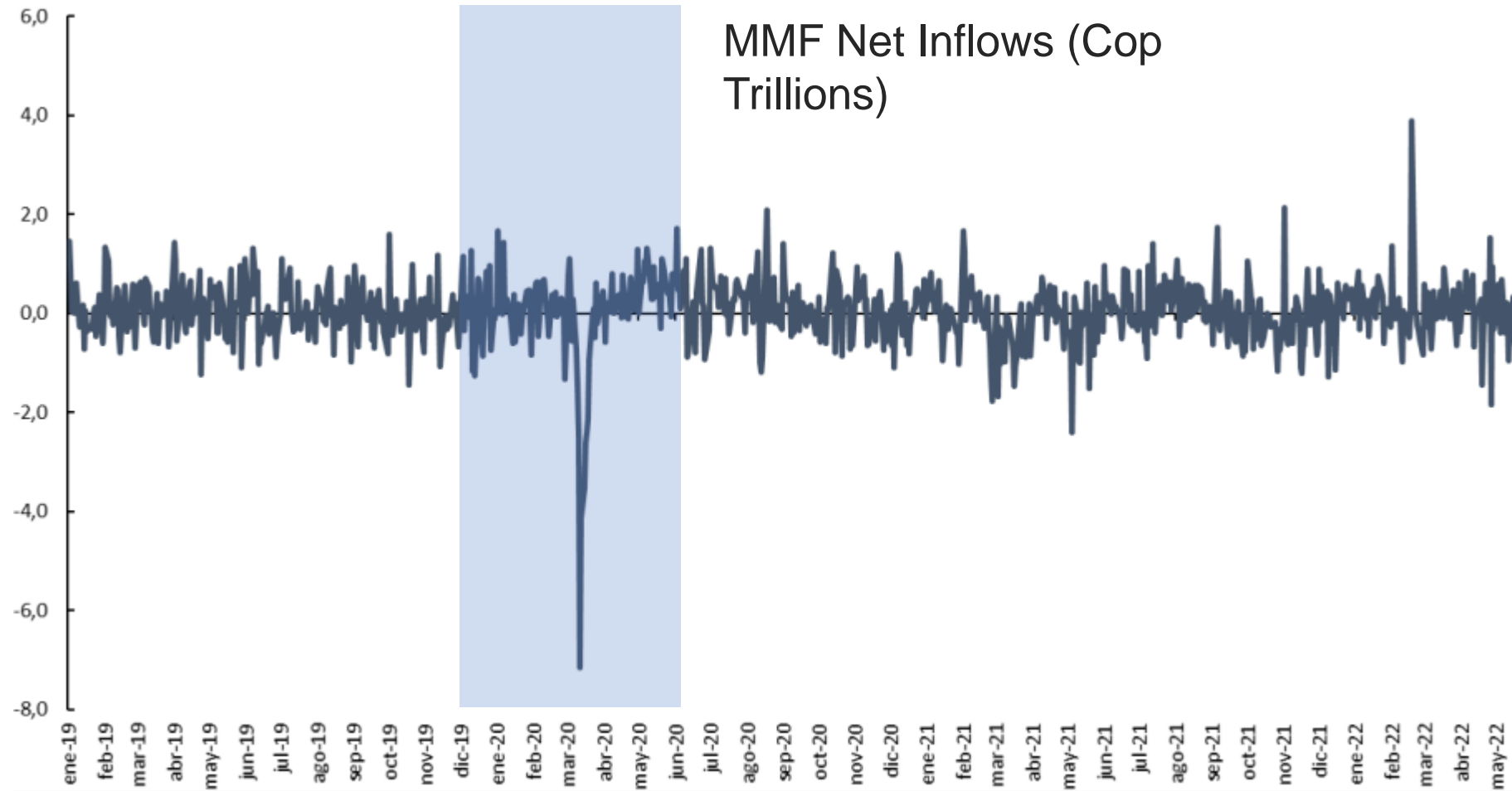
# Key: Find the right balance of risks and policy implementation



**Some of the instruments are not operational however they are still part of the toolset of the central bank. The CB is no longer intervening in the FX market nor providing markets support in terms of volatility/prices**

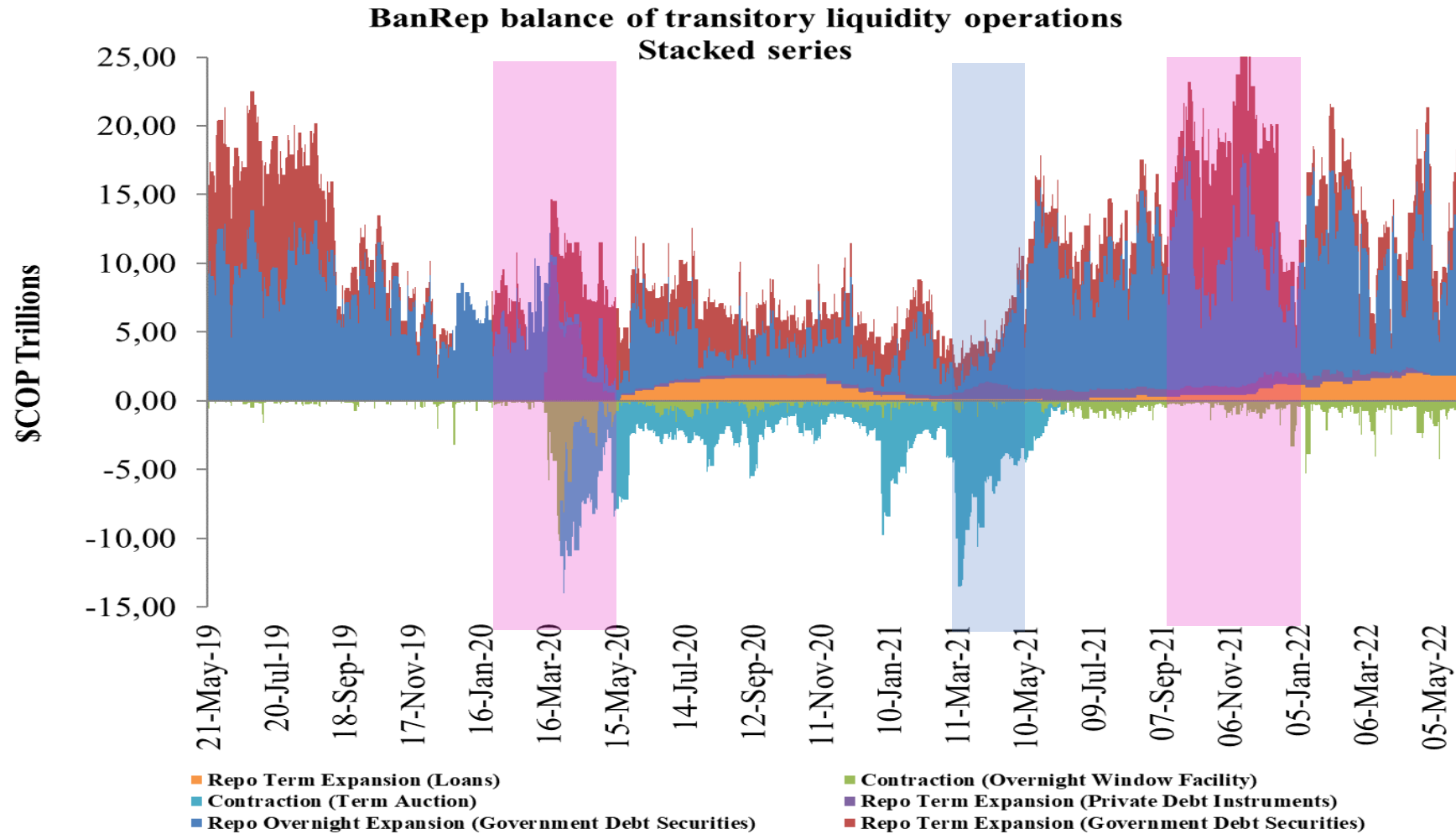


One of the main alerts after the beginning of the pandemic was the important outflows from MMF. After recent developments that behavior has not been observed

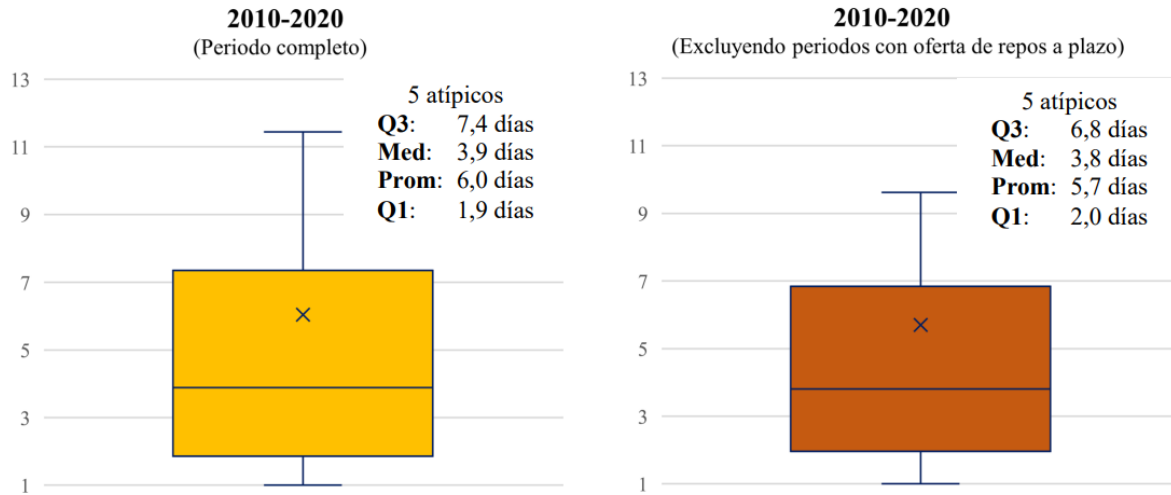




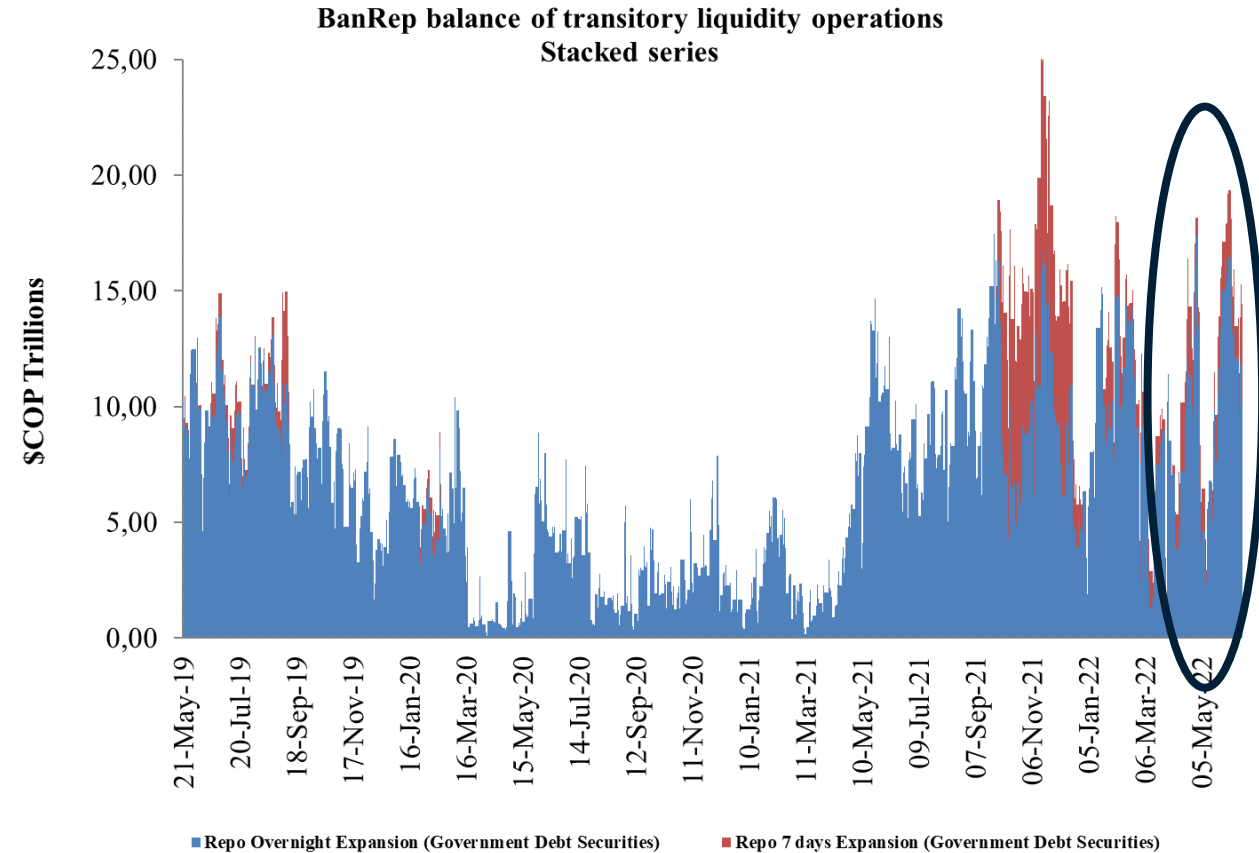
Maintain purchases and sales of government bonds as an important mechanism to provide and drain liquidity, improving the traction of monetary policy



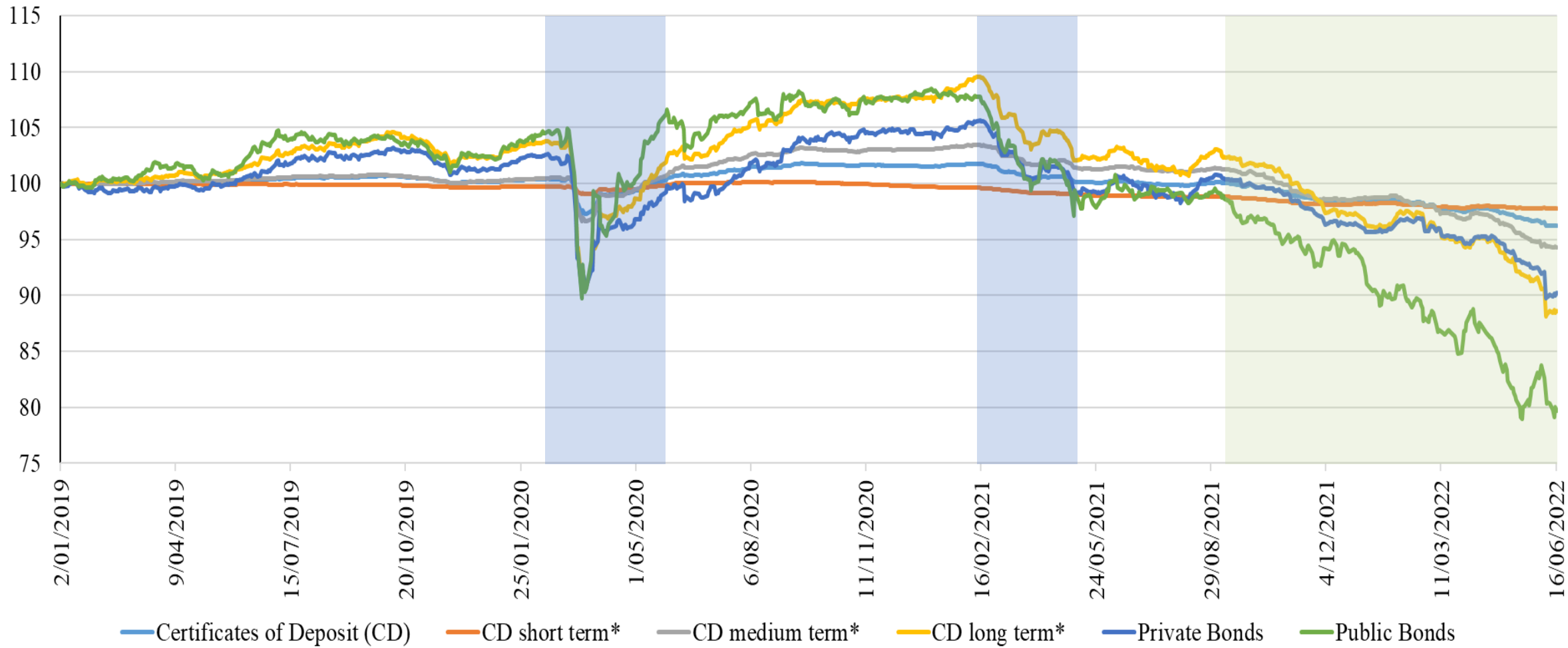
As a result of a persistent demand, and with the purpose of ensuring the liquidity to longer tenors BR implemented a regular 7-day repo in addition to its overnight operations



\*Prom<sub>j</sub> considera las participaciones individuales en la subasta de expansión *overnight*.  
 \*\*La X indica el promedio. Med denota la mediana. Q1 y Q3 corresponden a los cuartiles 1 y 3, respectivamente.  
 Fuente: Elaboración propia con información del BanRep.



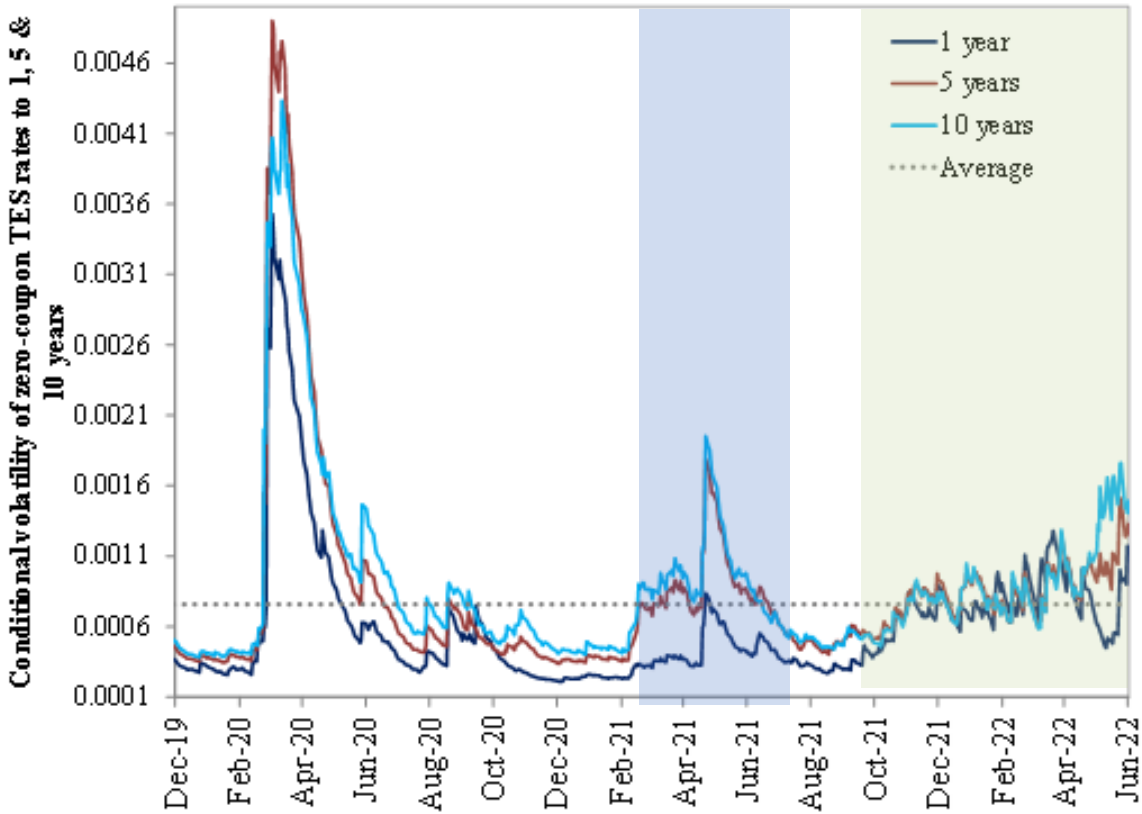
After the pandemic turmoil, markets have been closely linked to local factors and recently to the dynamics of global financial conditions – monitoring is key to identify possible speculative moves affecting the transmission of monetary policy



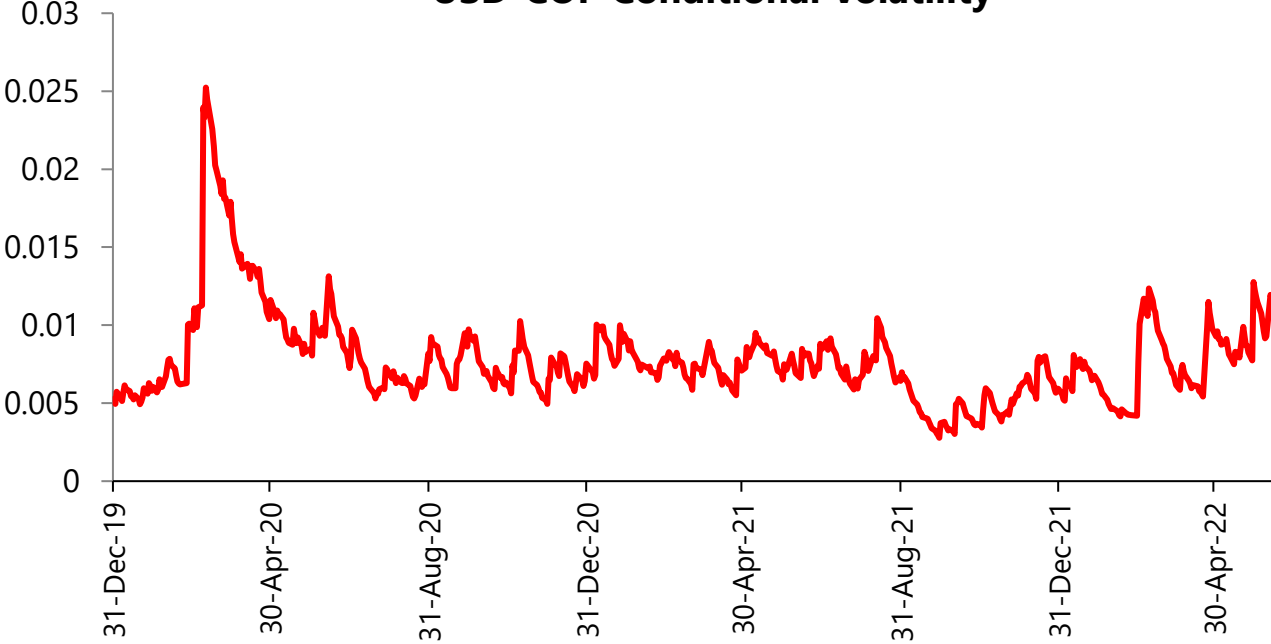
Source: DECEVAL and Banco de la República. Information updated until June 16, 2022  
 \*CD maturity less than or equal to 365 days  
 \*\*CD maturity greater than 365 days and less than and equal to 1095 days.  
 \*\*\* CD greater than 1095 days.

Alongside with the downward trend in asset prices, volatility has increased although it has not reached the levels observed at the beginning of the crisis

### Conditional volatility by tenor in colombian debt market

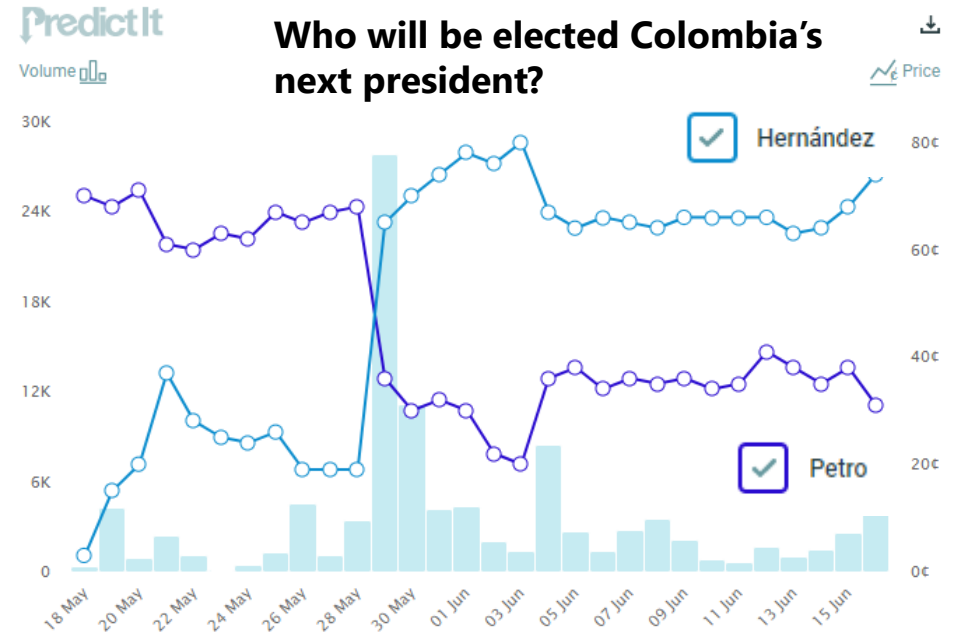
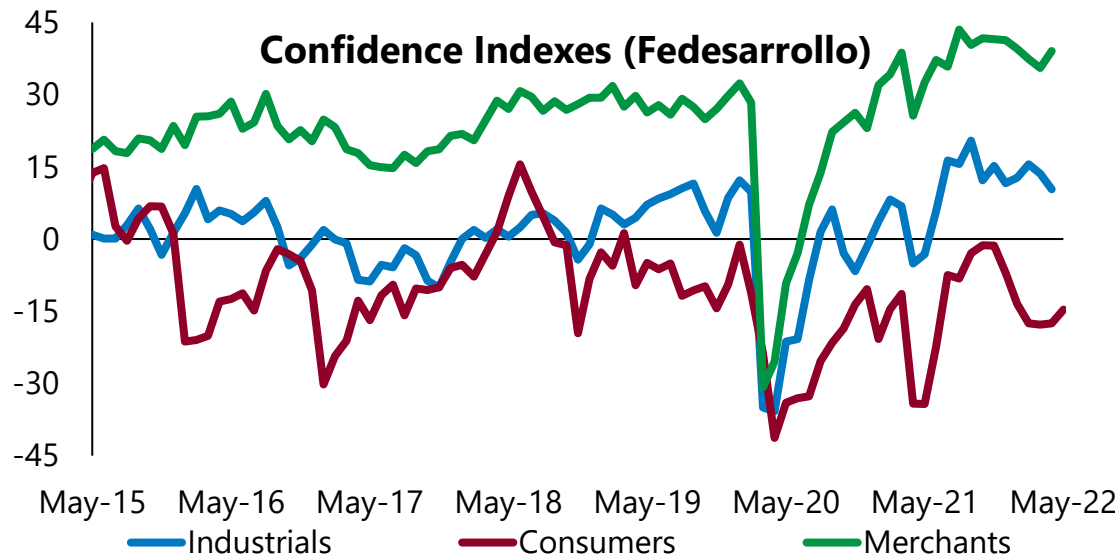
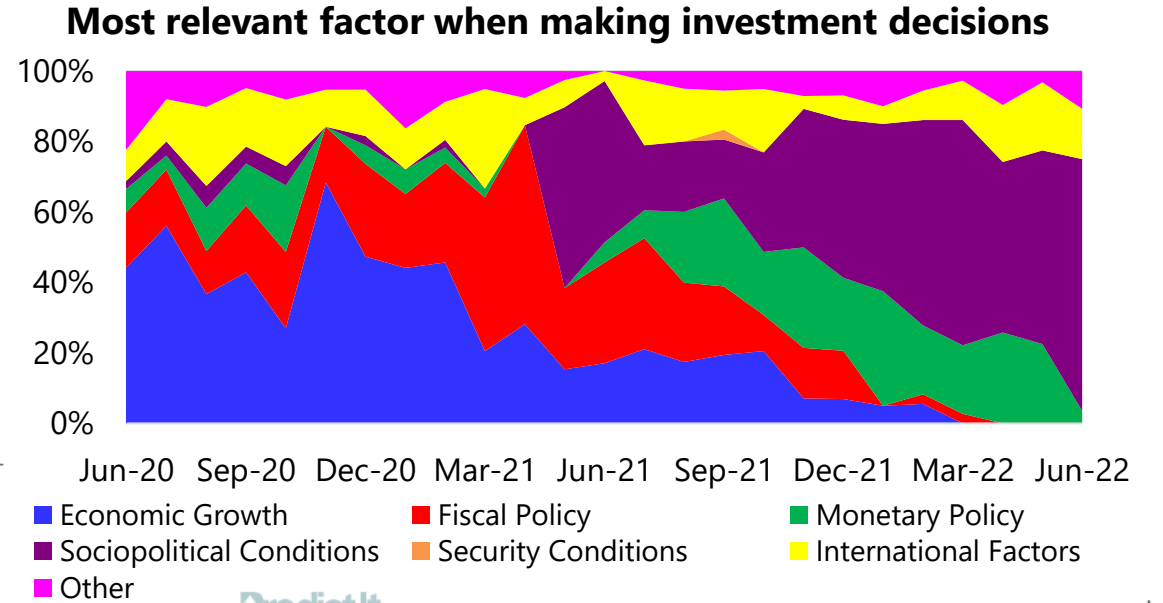
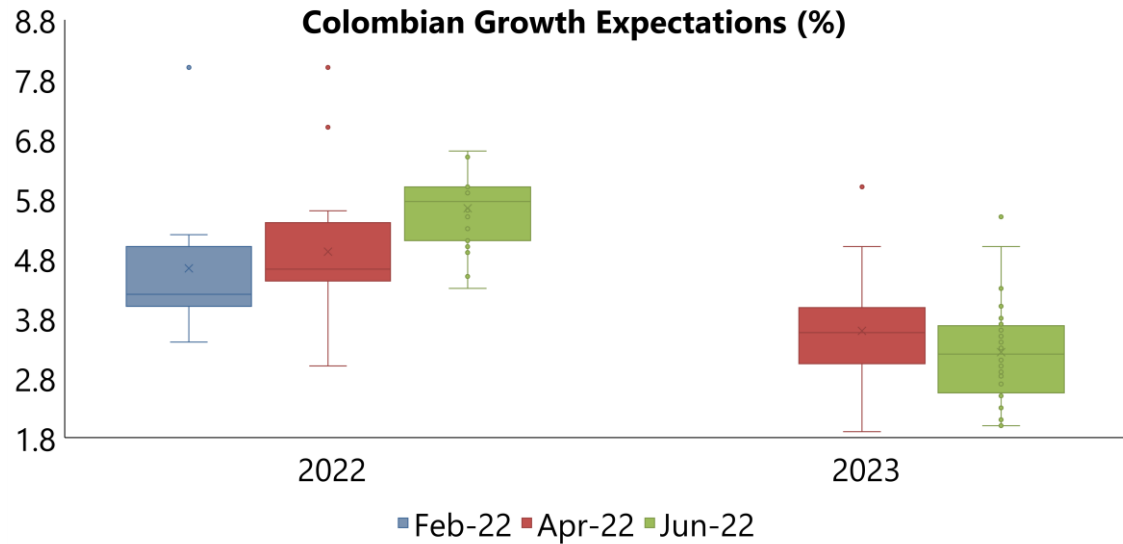


### USD-COP Conditional Volatility



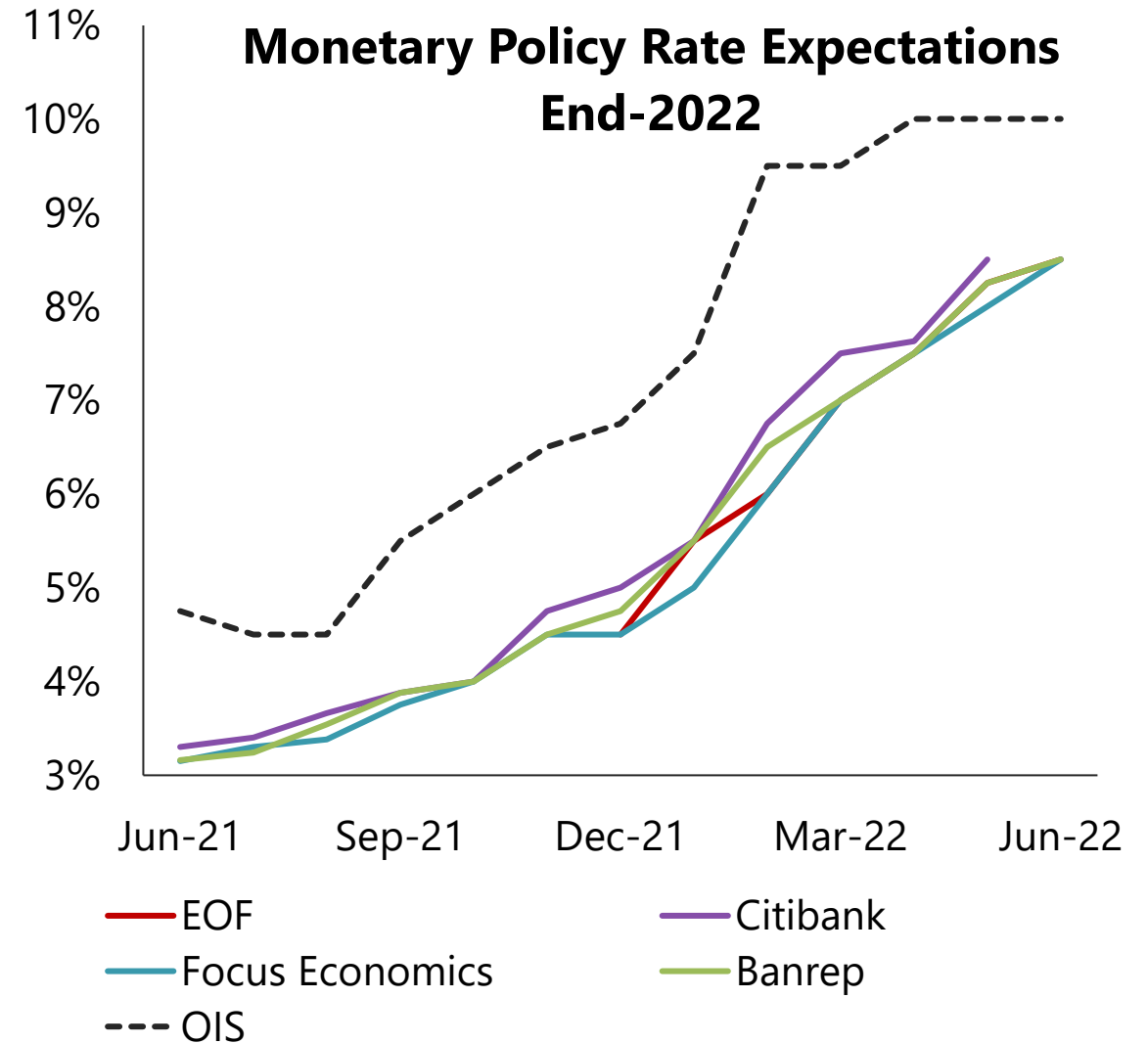
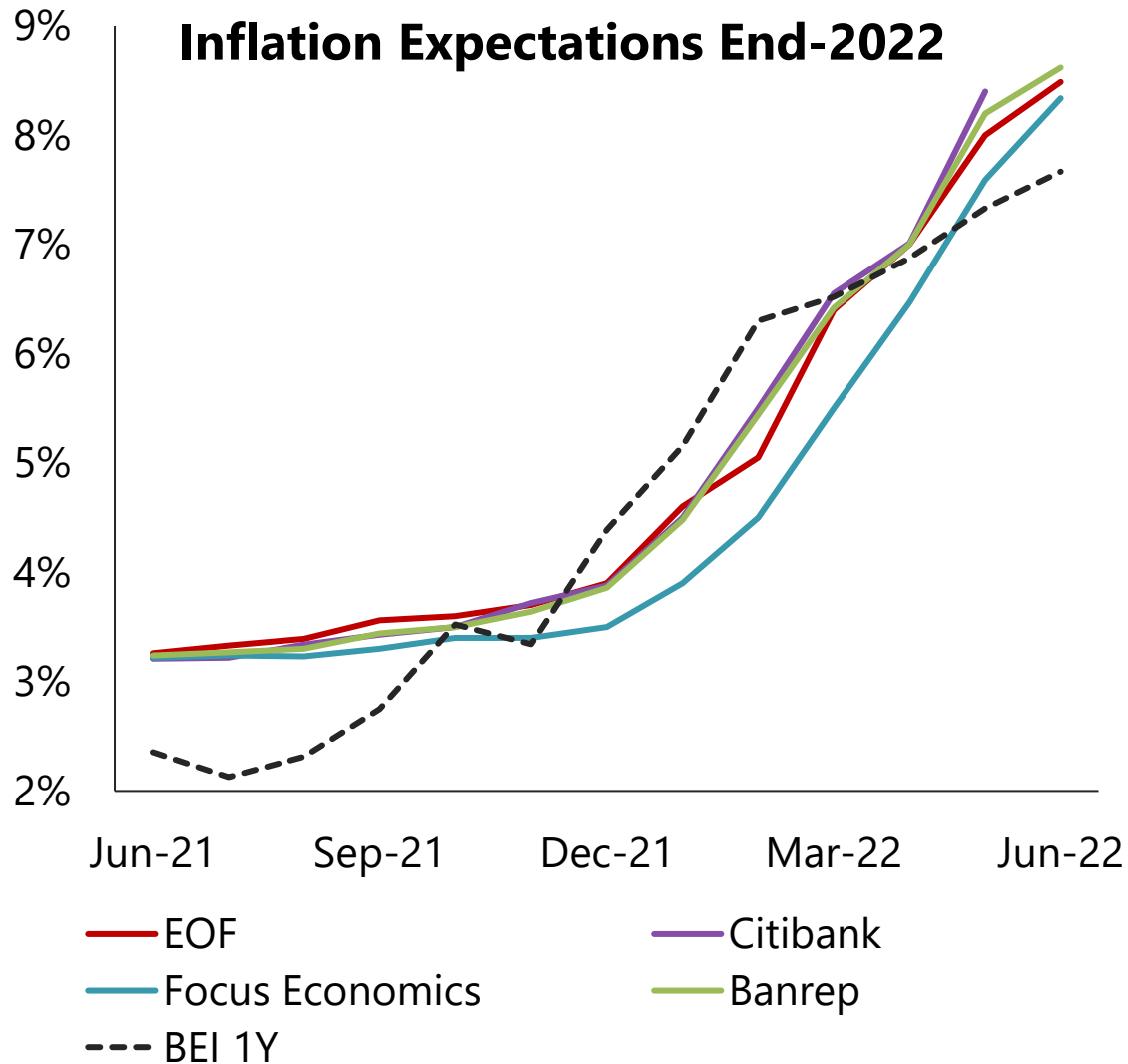
Conditional volatility is estimated with a GARCH(1,1) model and data between August 21, 1992 and June 16, 2022.

GDP has recovered since 2020 and economic dynamics have shown a healthy evolution. However international and local factor can be counting in an importan adjustment going forward



Source: Financial Opinion Survey (EOF) by Fedesarrollo and BVC; Consumer Confidence Survey by Fedesarrollo; PredictIt.

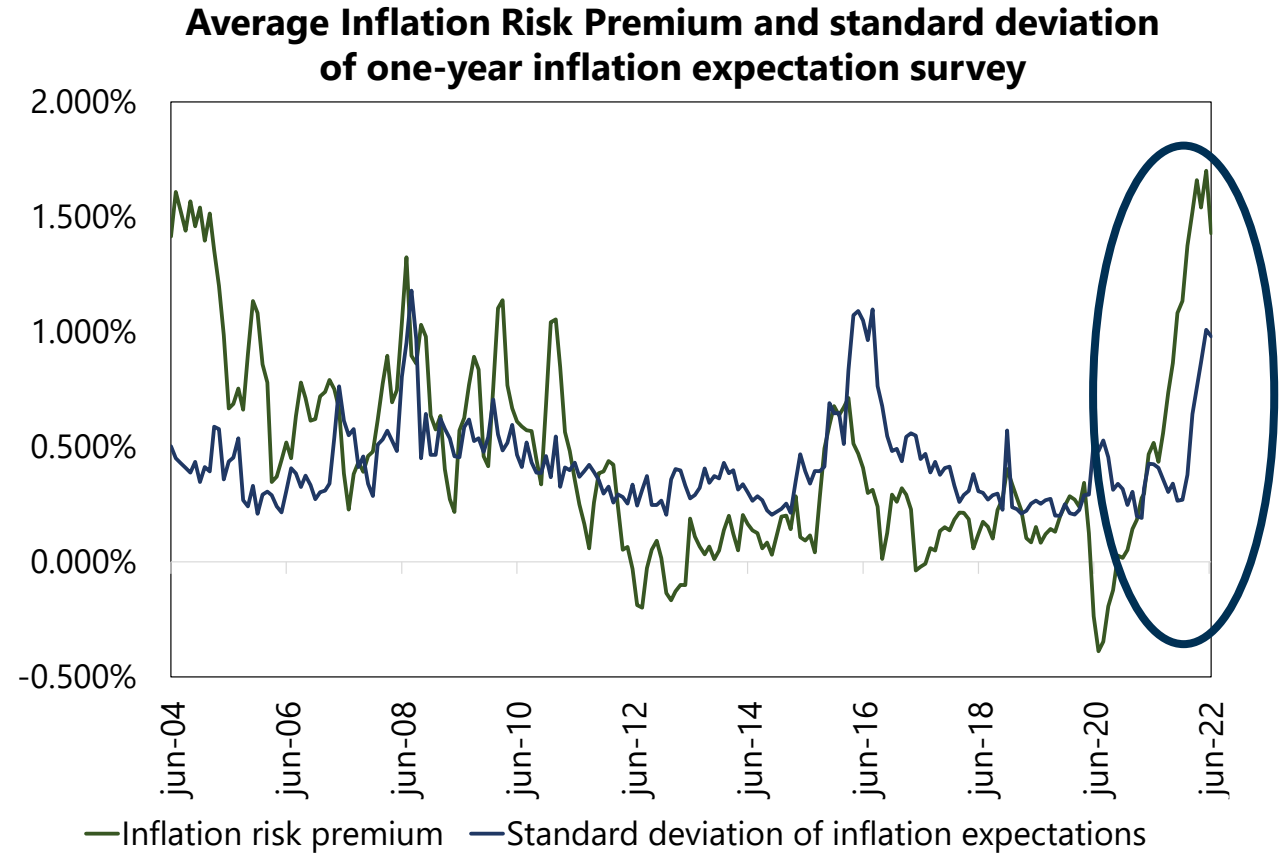
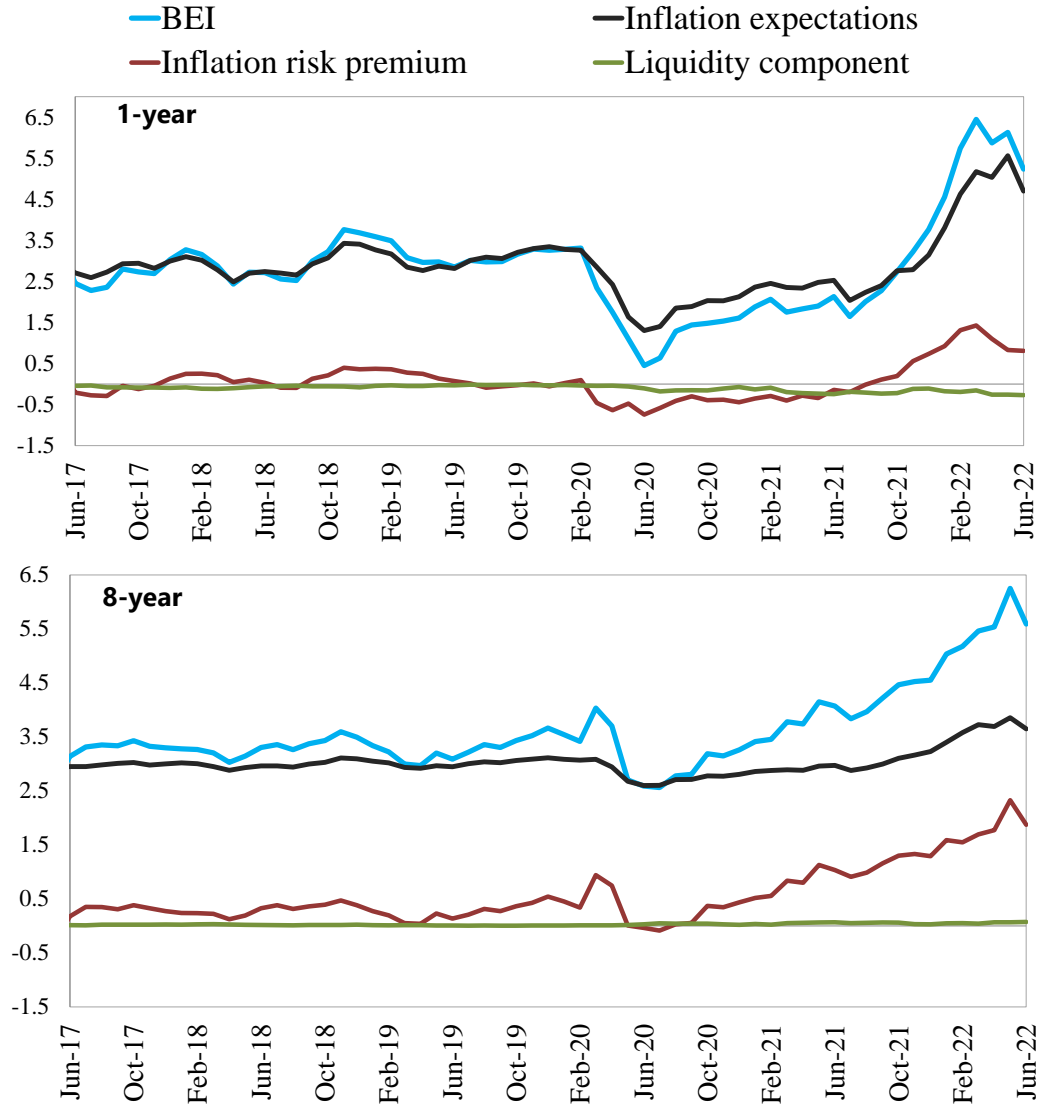
Inflation is moving up in tandem with global inflation. Although the monetary policy response is moving in the same directions, some divergence appeared between Asset prices and financial analysts' expectation.



Source: SEN, Master Trader, Bloomberg; surveys by Citi, Focus Economics, Banrep and Fedesarrollo/BVC (EOF).

On the inflation side, and important component of expectations come from an inflationary risk premium. The latter has been correlated with uncertainty market uncertainty.

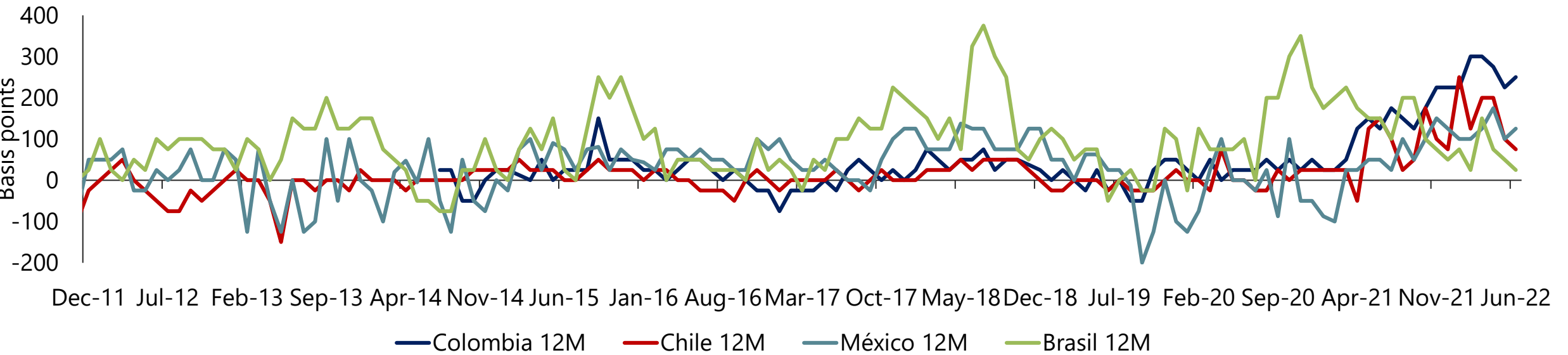
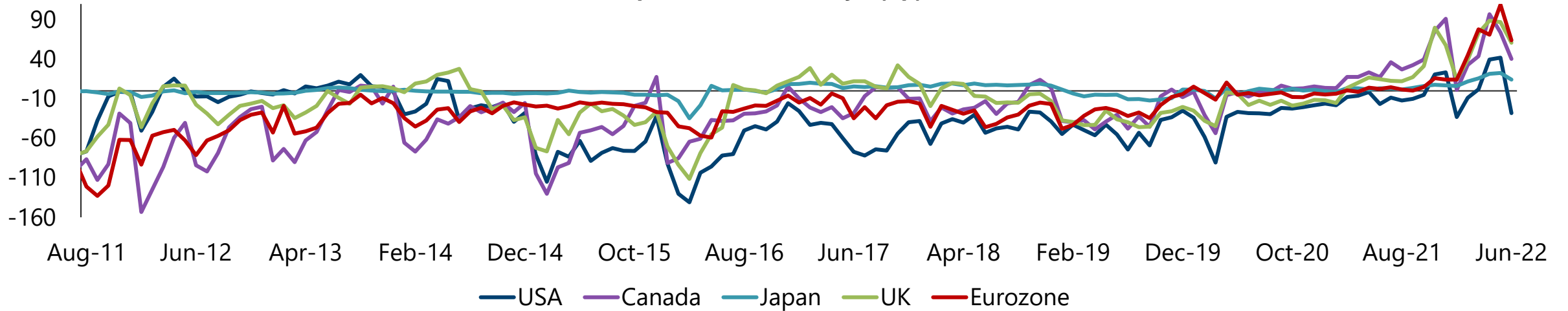
### BEI decomposition



Source: Precia and Banrep monthly expectations survey. Data up to June 16th/2022

On the MPR side, it seems that the same behavior has been evident for other developed and emerging economies

Spread OIS – Surveys (bp)

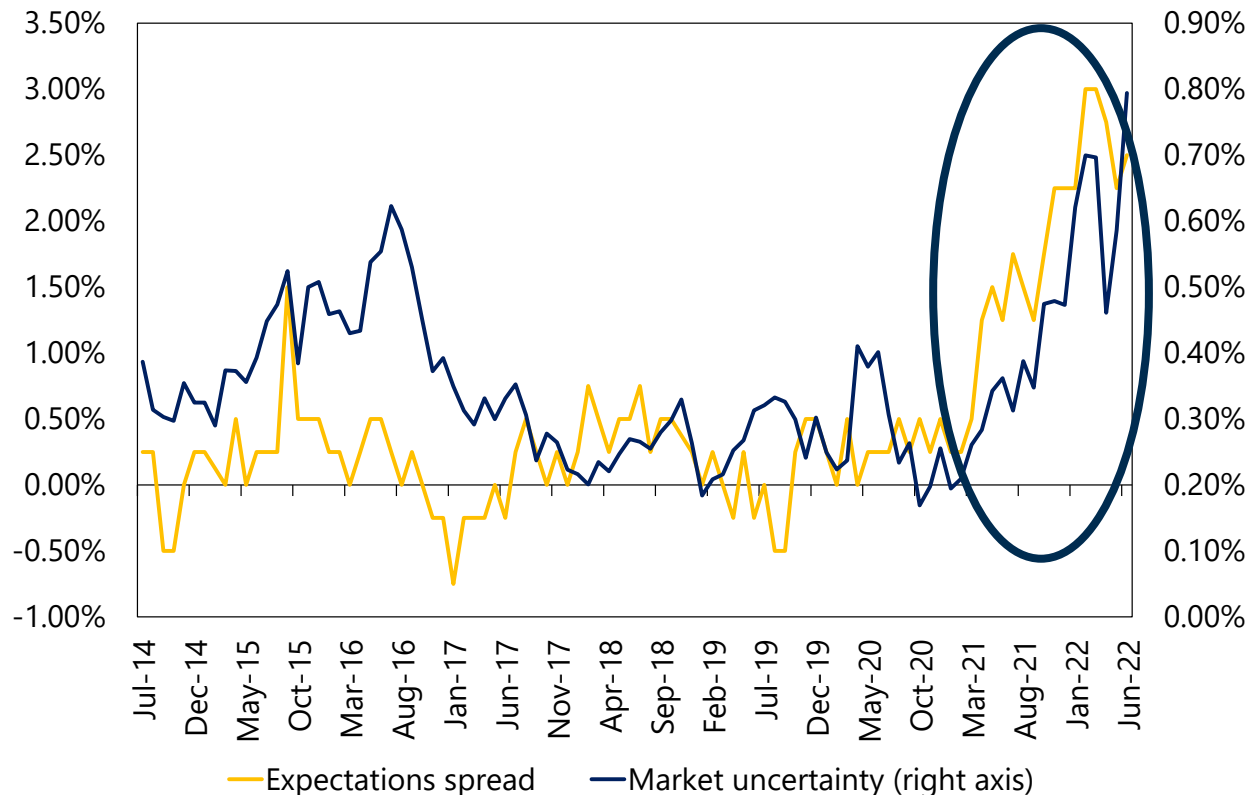


Source: Bloomberg, surveys by Focus Economics and the Central Banks of Colombia, Chile, Mexico and Brazil.

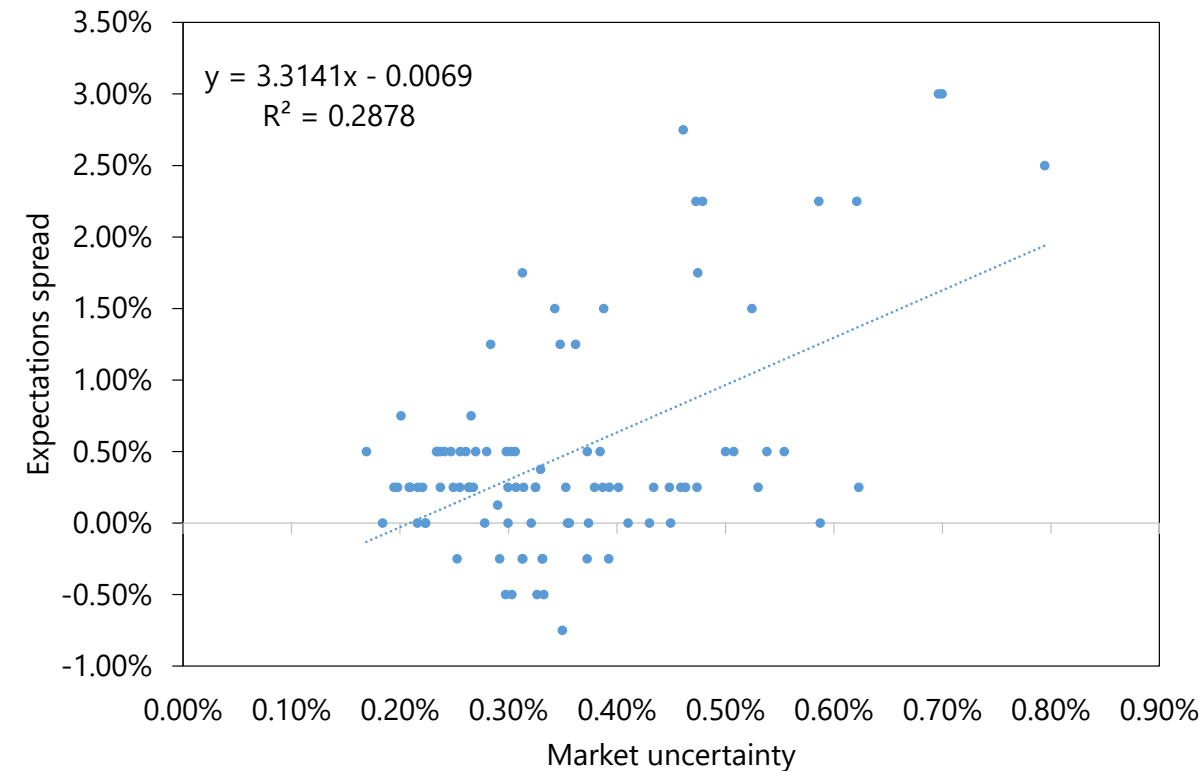


For the local case, in line with inflation expectations, that divergence seems to be correlated with market uncertainty. Therefore, it is particularly important to filter out the implied premium to better understand what market is pricing in.

**Spread between market and survey expectations and standard deviation of survey expectations**

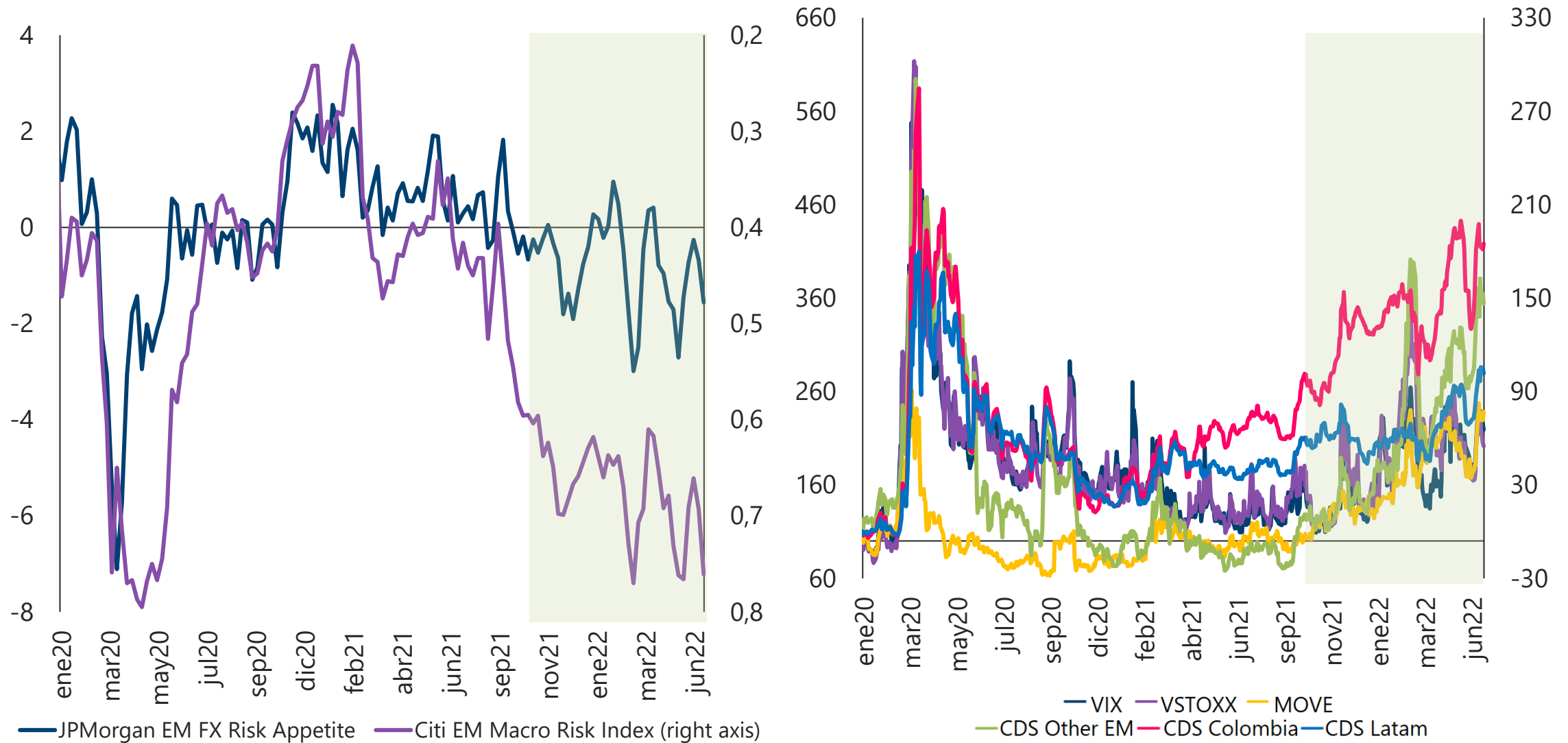


**Correlation between expectation spread and uncertainty of MPR expectations**



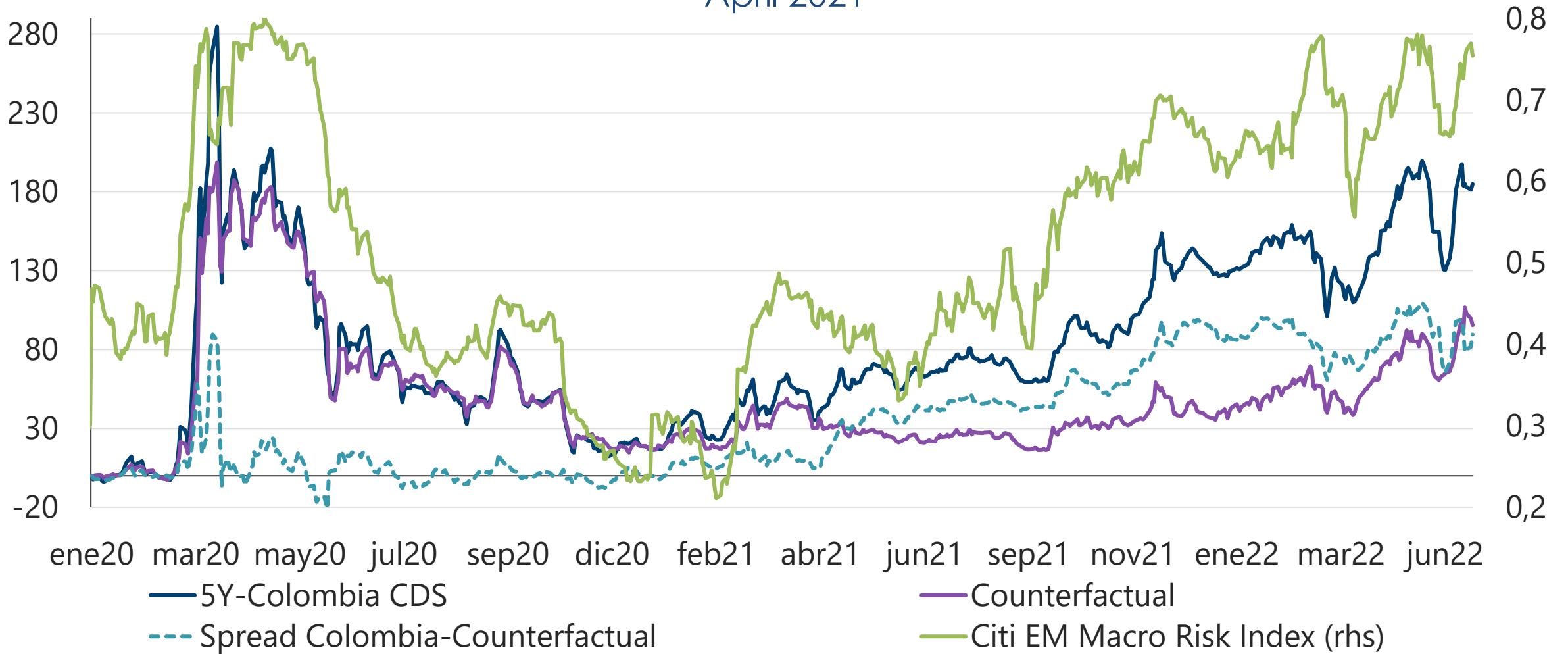
**Source:** Bloomberg and Banrep monthly expectations survey. **Note:** Market uncertainty refers to standard deviation of expectations from one year monetary policy rate.

# High Risk Aversion in Emerging Markets (Citi Macro EM Risk Index). Current levels are close to those observed at the beginning of the pandemic



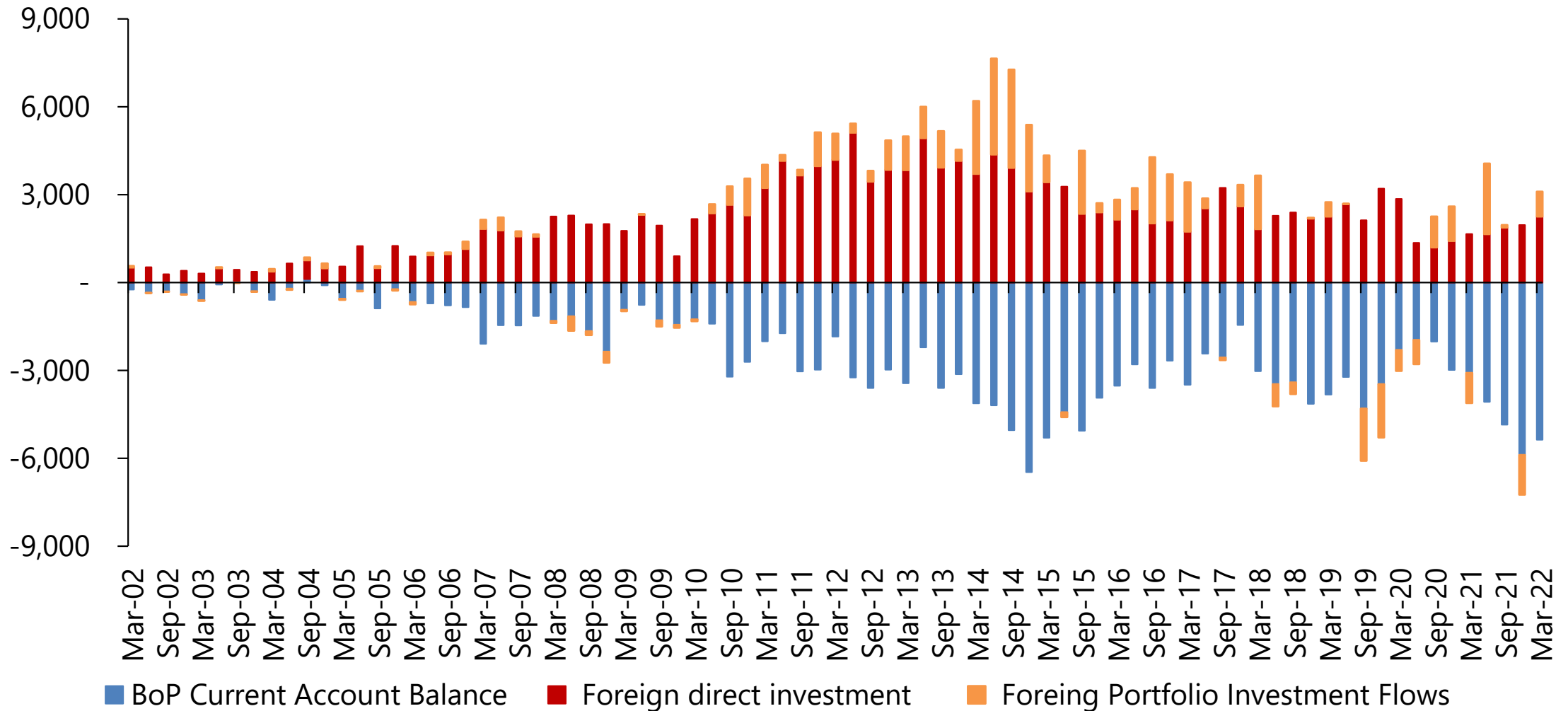
Source: Bloomberg. Data up to June 21<sup>st</sup>/2022. CDS are shown as changes (bp) since December 31<sup>st</sup>/2019 in the right axis of the right chart. CDS Latam is the average of the CDS of Brazil, Mexico, Chile and Peru. Other EM CDS is built by Markit given the information of 18 sovereign issuers from Latam, EMEA and Asia.

Assessing the factors underlying the trend of risk premium is key on the reaction function of CB. The spread between the 5Y-Colombia CDS and its counterfactual has widened since April 2021



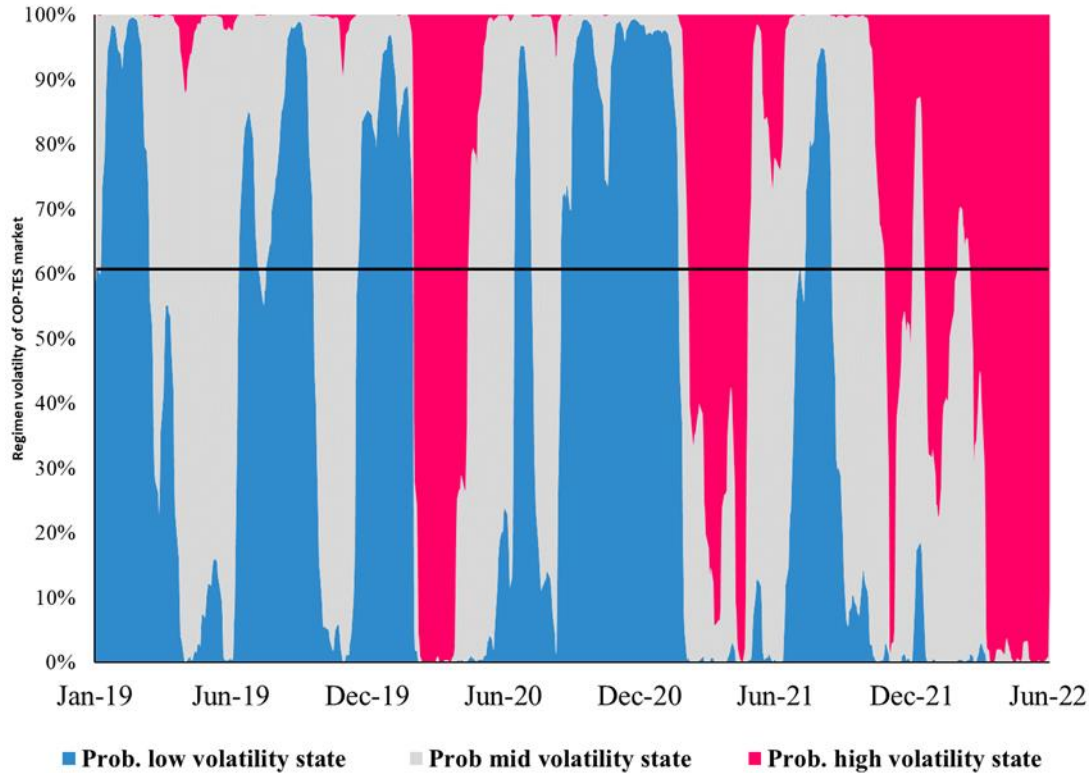
Source: Bloomberg. Data up to June 21<sup>st</sup>/2022. CDS are shown as changes (bp) since December 31<sup>st</sup>/2020 .

Colombia's current account deficit is partially hedge by a steady FDI, however the gap make us vulnerable to changes in portfolio flows. Current market conditions increase potential risks

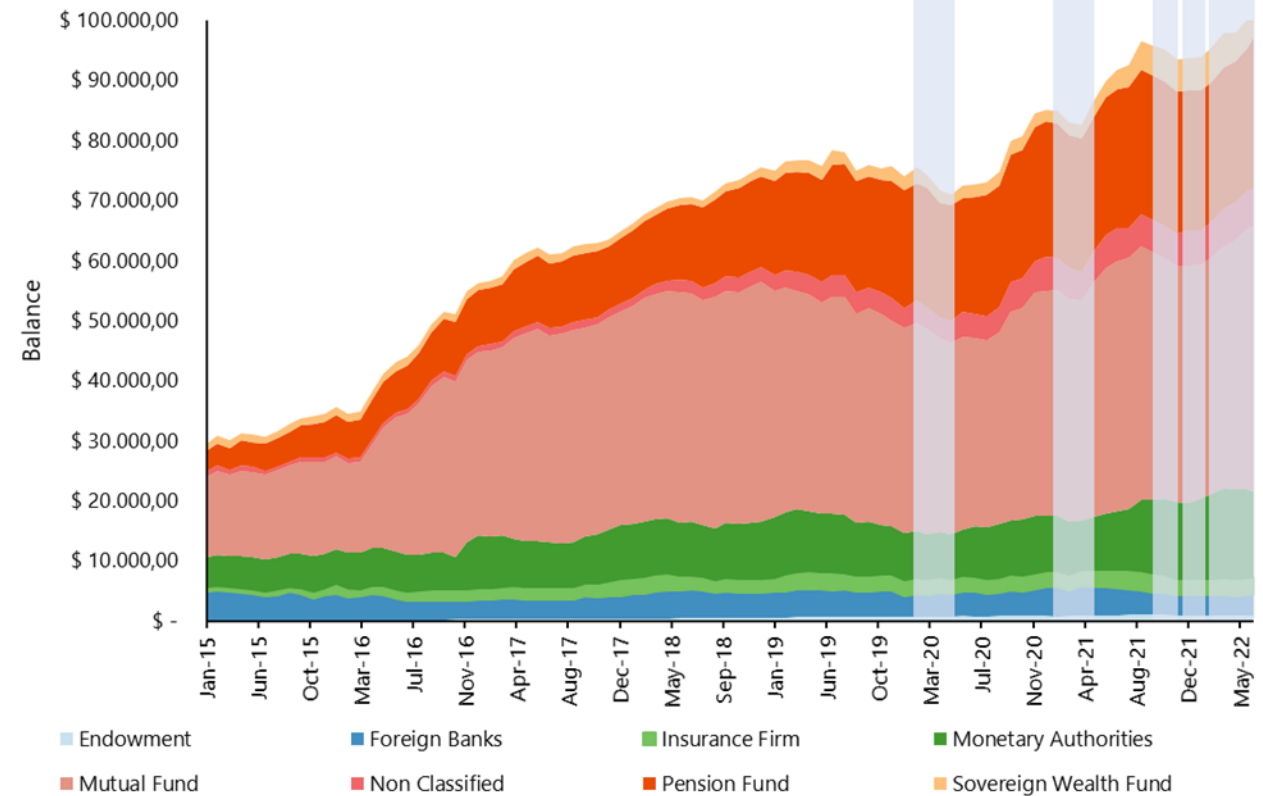


Although in recent distressed scenarios foreigners have not been particularly volatile, it is important to assess potential risks and developments

**Regimen probabilities in colombian debt market**

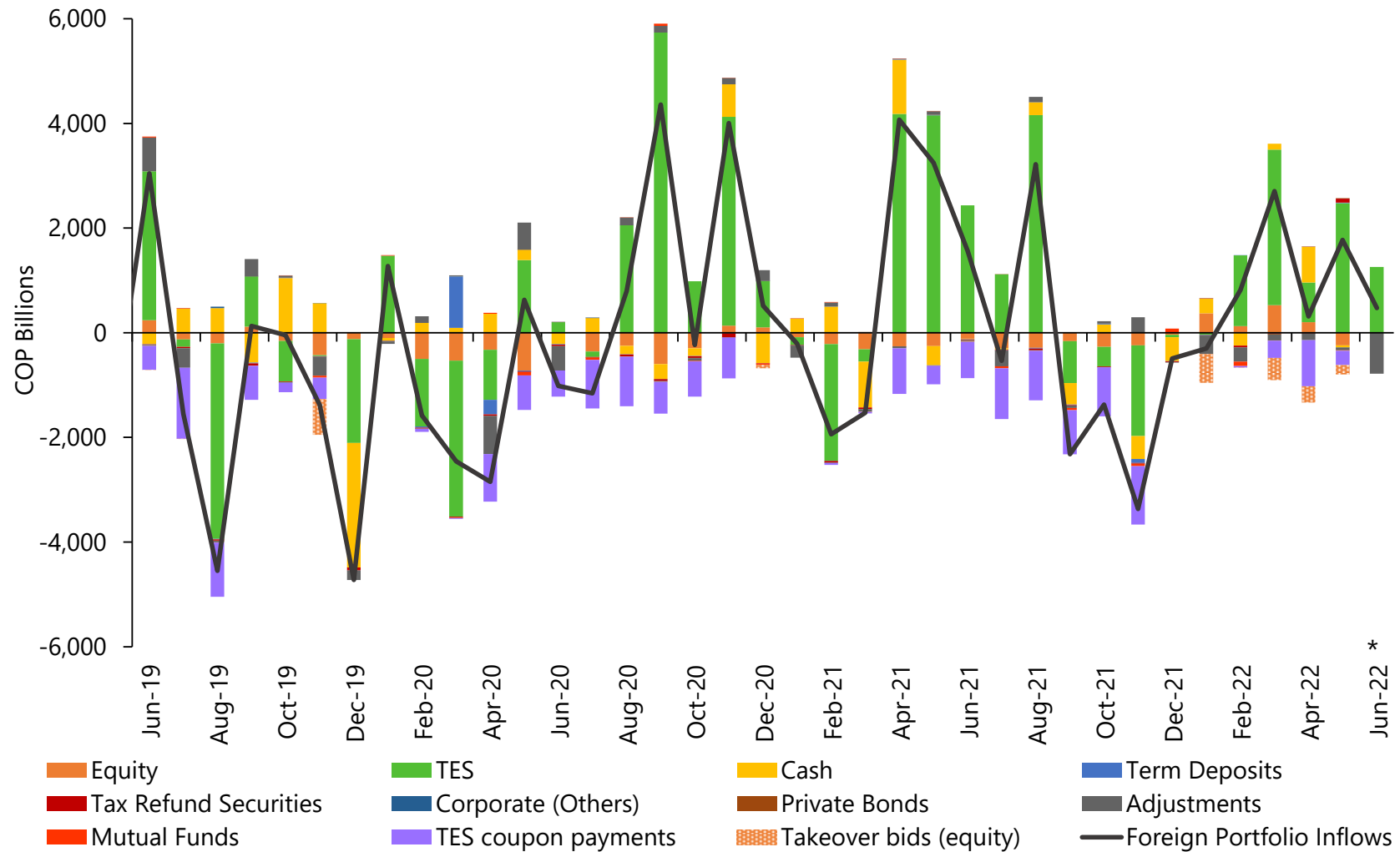


**Balance of foreign investors**



Source Banco de la República. Information updated until June 16, 2022  
 Balance - Billion pesos  
 Only includes information on TES pesos of the spot market

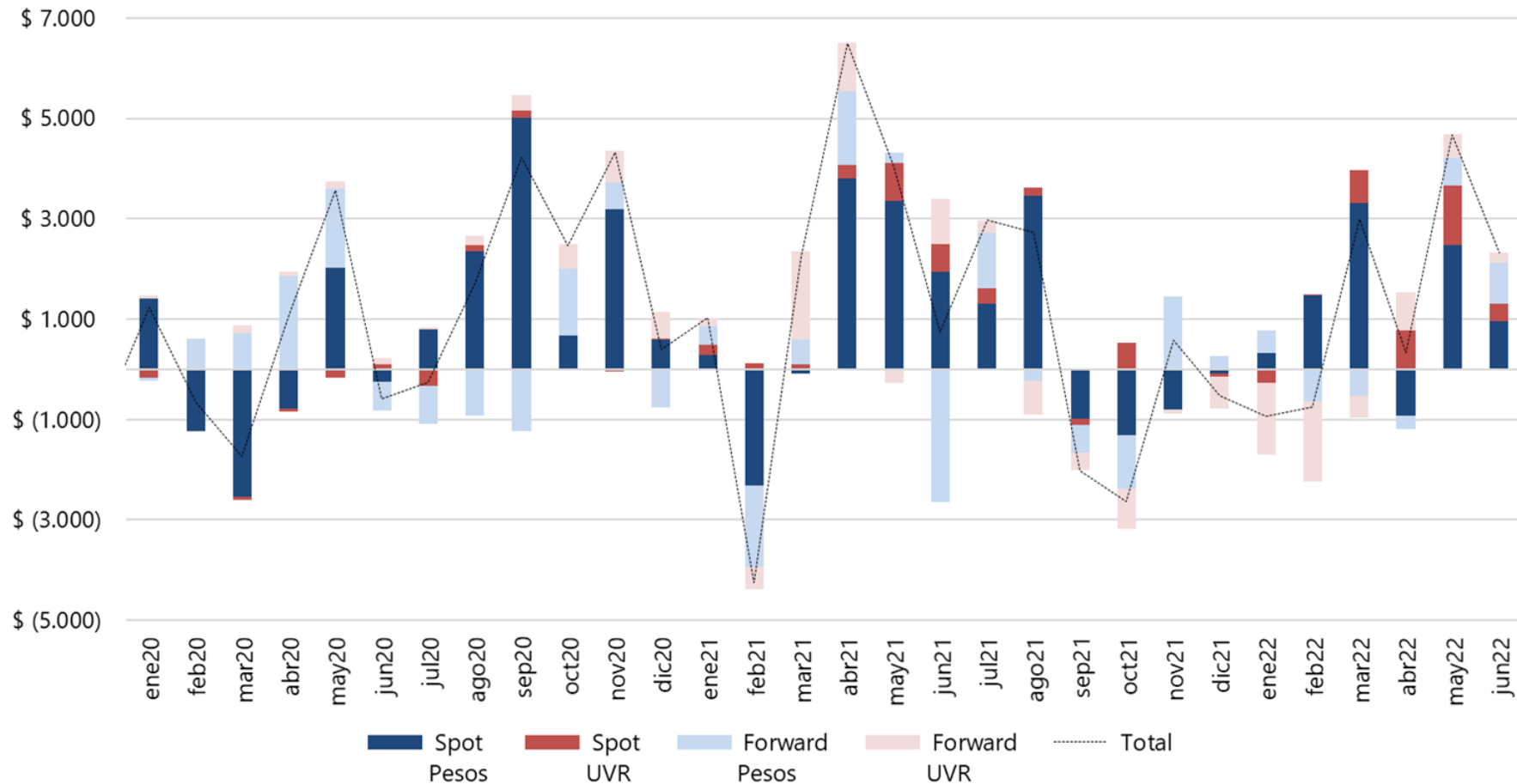
# Albeit recent developments, foreign portfolio investment flows in Colombia have remained positive



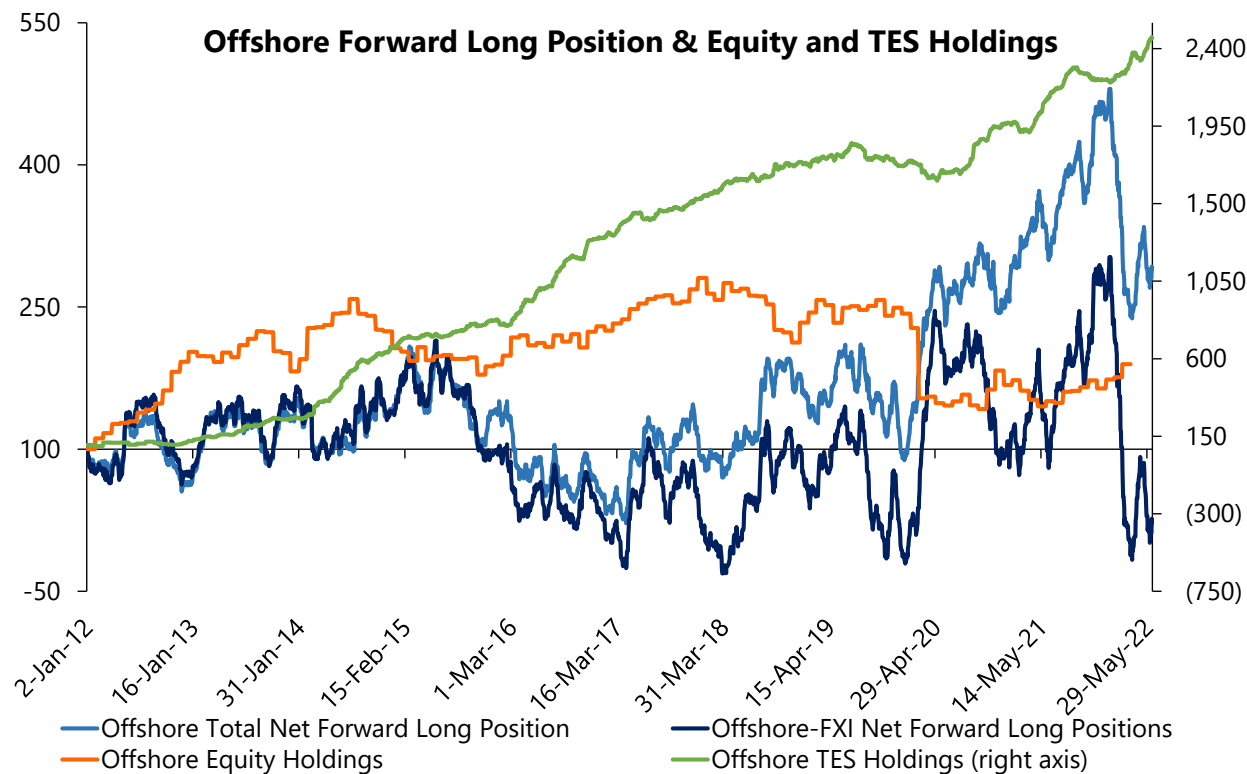
Corporate (Others) includes: convertible bonds in shares, pension bonds, public bonds, associations CDs, mortgage securities and participation securities.  
 Private bonds includes: ordinary bonds and commercial papers.

\* Adjustments: includes some profits and returns. Φ Foreign Portfolio Investment as of June 9, for this month only the value of TES is shown.

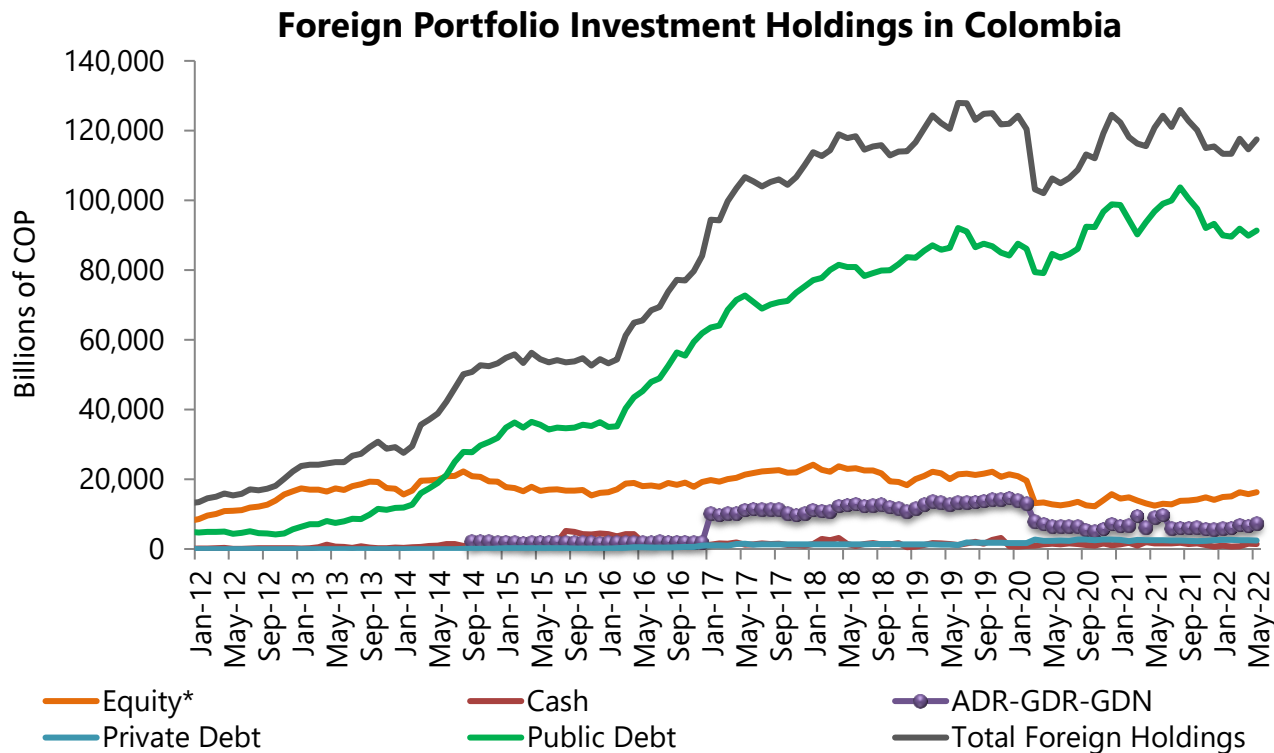
## ...also when counting in the derivative market



Foreigners are important holders of local debt. Hence, stalled flows are worrisome, but a reversal can be particularly disruptive



Source: Banco de la República  
Base 100: January 2nd 2012

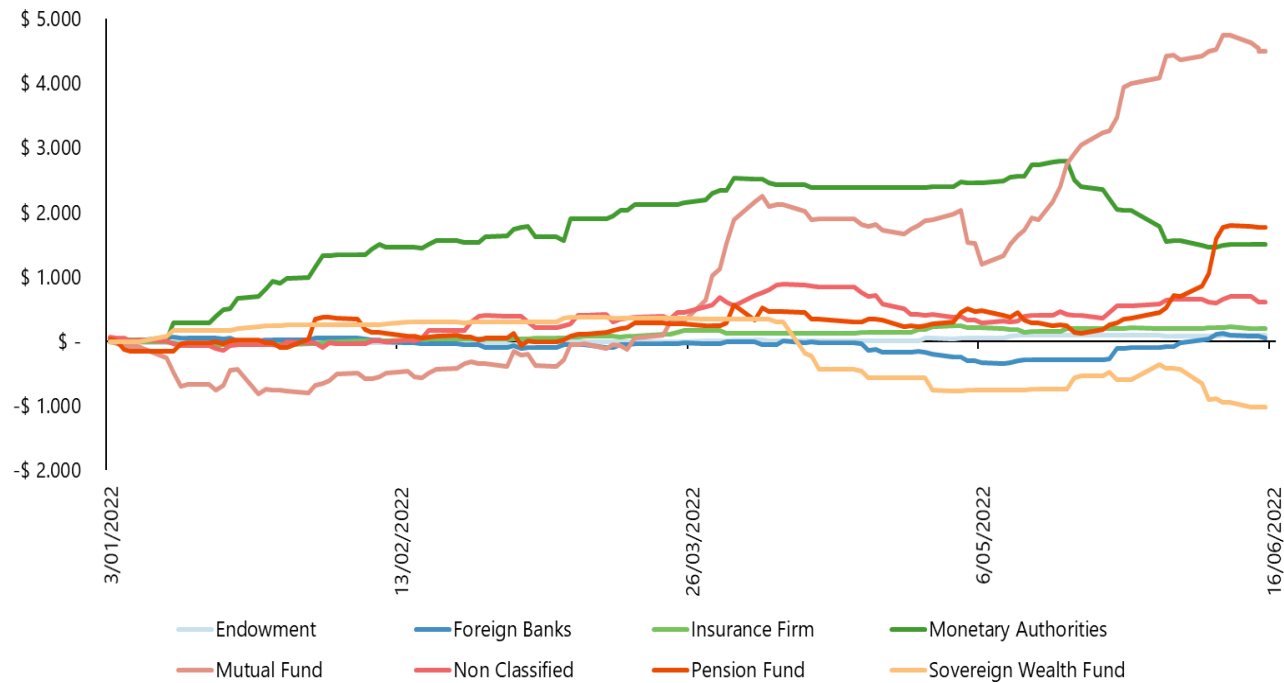


\*Includes investments in Mutual Funds.

Source: Formato Ipext Banco de la República.



The nature of foreign investors can be relevant to understand risks. Some inflows came from agents that seems to be procyclical



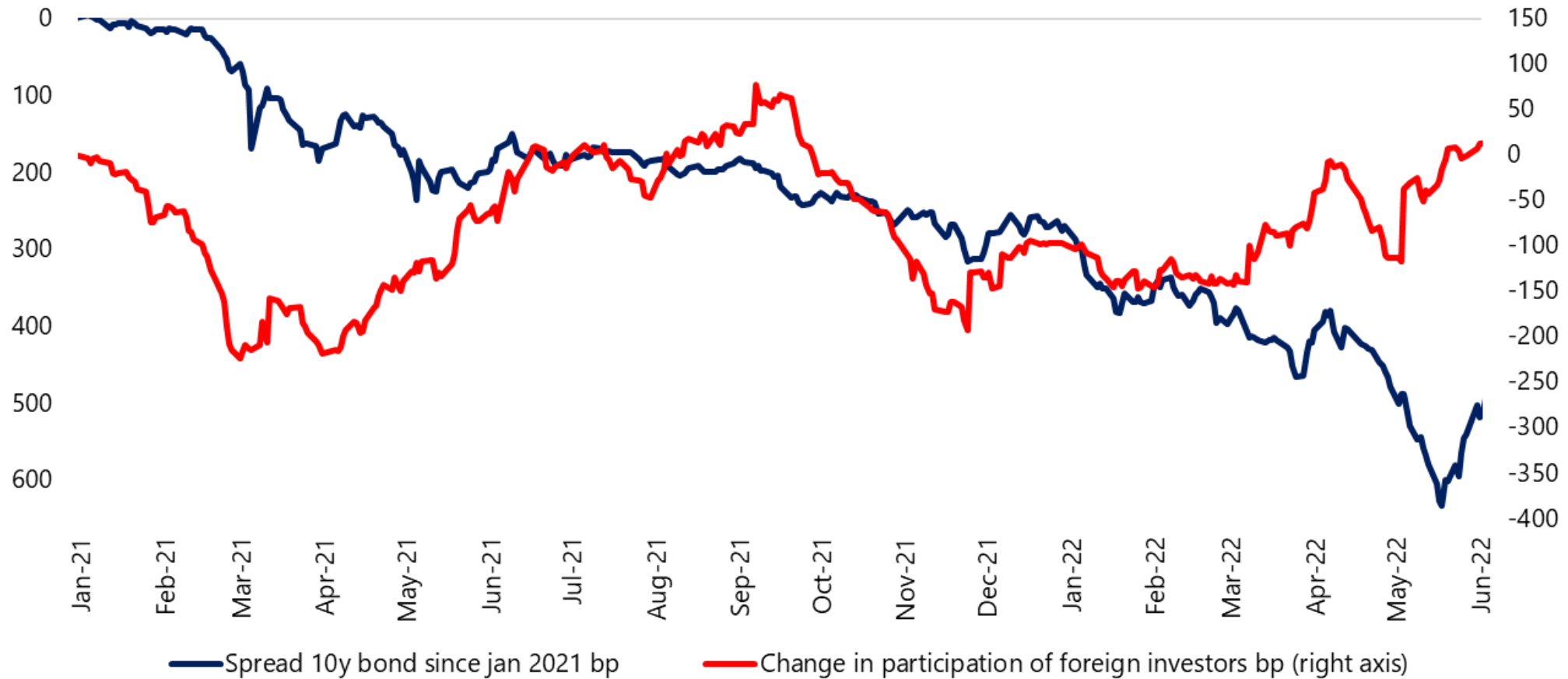
### Correlation with risk market variables

	CDS5Y	Gold	Vix	Vstox	Move	DXY	COP	WTI	EMBI	spread
Foreign Banks	0.07	-0.07	-0.05	0.03	-0.02	-0.07	0.05	-0.07	0.02	0.13
Hedge Fund	-0.15	0.06	-0.06	-0.08	-0.2	0.04	-0.09	0.15	-0.18	-0.16
Monetary Authorities	-0.03	-0.02	0.1	0.02	0.06	0.02	-0.02	0.19	0.01	0
Mutual Fund	-0.21	-0.02	-0.1	-0.08	-0.16	-0.02	-0.22	0.04	-0.2	-0.21
Non Classified	-0.11	0.09	-0.09	-0.19	-0.18	-0.02	-0.22	0.17	-0.08	-0.17
Pension Fund	-0.3	0.01	-0.16	-0.13	-0.09	-0.02	-0.21	0.01	-0.22	-0.16
Insurance Firm	-0.19	0	-0.22	0.04	-0.22	-0.13	-0.13	-0.15	-0.19	-0.14
Endowment	0.02	-0.04	-0.08	-0.16	-0.07	0.05	0.08	0.02	-0.03	0
Sovereign Wealth Fund	0.05	-0.05	-0.05	-0.15	0.06	0	0.02	0	0.05	0.1
Multilateral Organizations	-0.03	0.15	-0.01	-0.03	0.04	-0.02	-0.03	-0.01	-0.08	0.03

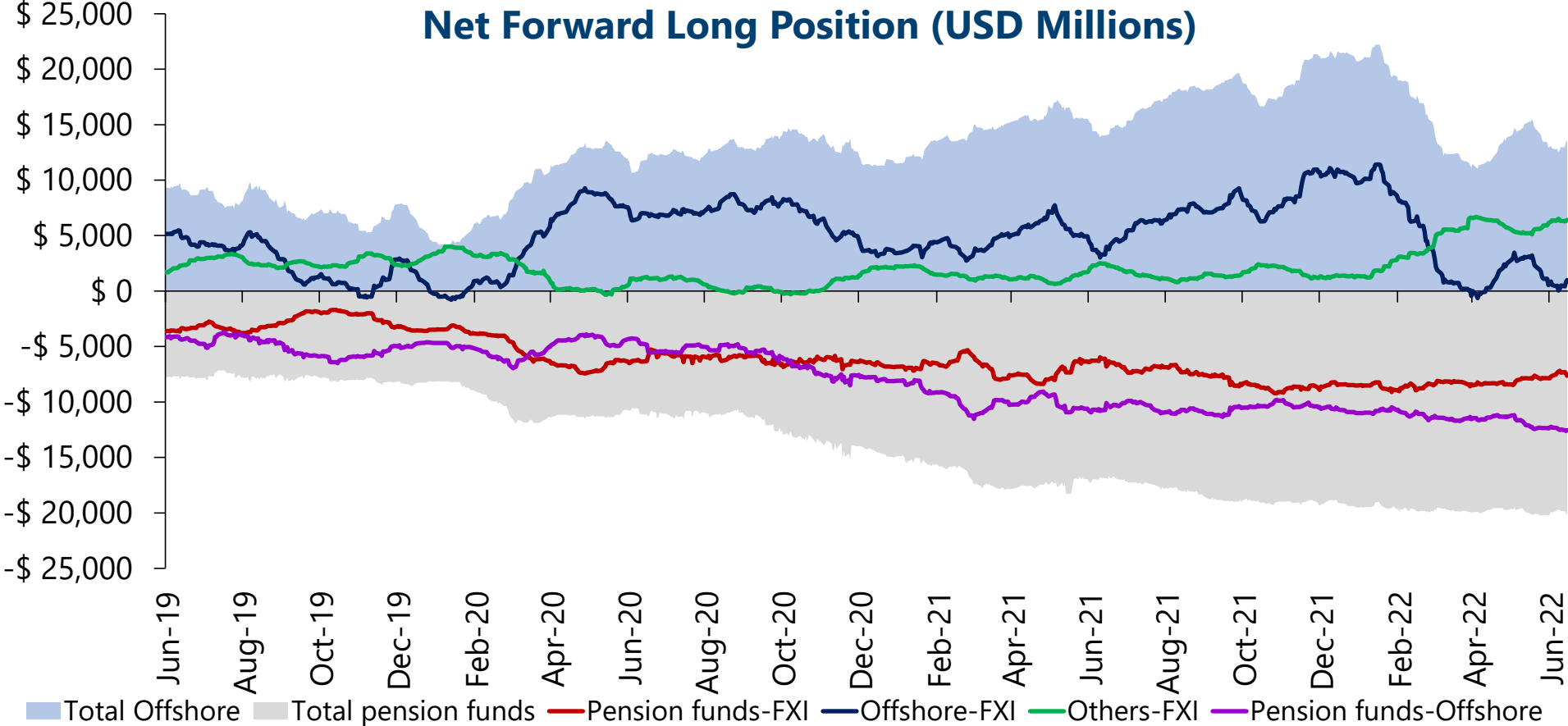
Source Banco de la República. Information updated until June 16,2022  
 Daily flows with trade date- Billion pesos  
 Only includes information on TES pesos of the spot market

The correlation was calculated using information from January 2010 to June 16<sup>th</sup> 2022.

...Recent foreign investments appear to be offsetting other factors



That has been the case for FX exposure too. There is no evidence of a particular speculative trend in the FX market.



Source: Banco de la República. Updated information at June 15th 2022.

Total Offshore includes the net balances of the Offshore with FX intermediaries (FXI) and the Offshore with Pension Funds and Total Pension Funds (PF) includes net balances of PF with FXI and PF with the Offshore.

Since December 7th 2020 this graph is calculated with the information of the operations reported by the Foreign Exchange Trading and Registration Systems.

# Conclusions

- Intervention of CB bank has been particularly important to restore confidence and to normalize market dynamics.
- Benefits outnumber costs in the process of defining alternatives to support the market, but a right balance must be incorporated in the strategies.
- Operability is key.
- Risk are not over, and some new circumstances may arise, therefore it is important to be prepared.
- Moreover, risks particularly towards EM seem to be building up given global factors (Inflation and monetary policy responses, shadows of recession and economic downturns) .

**Thanks**