



## Macro-financial stability frameworks and external financial conditions

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The views expressed are those of the presenter and not necessarily those of the BIS

## Outline

- Introduction
  - Macro-financial stability frameworks (MFSFs): Nature and origins
  
- MFSFs and external financial conditions
  - Nature of policy trade-offs raised by swings in external financial conditions
  - Implications for MFSFs
  - Macroprudential features of FX intervention

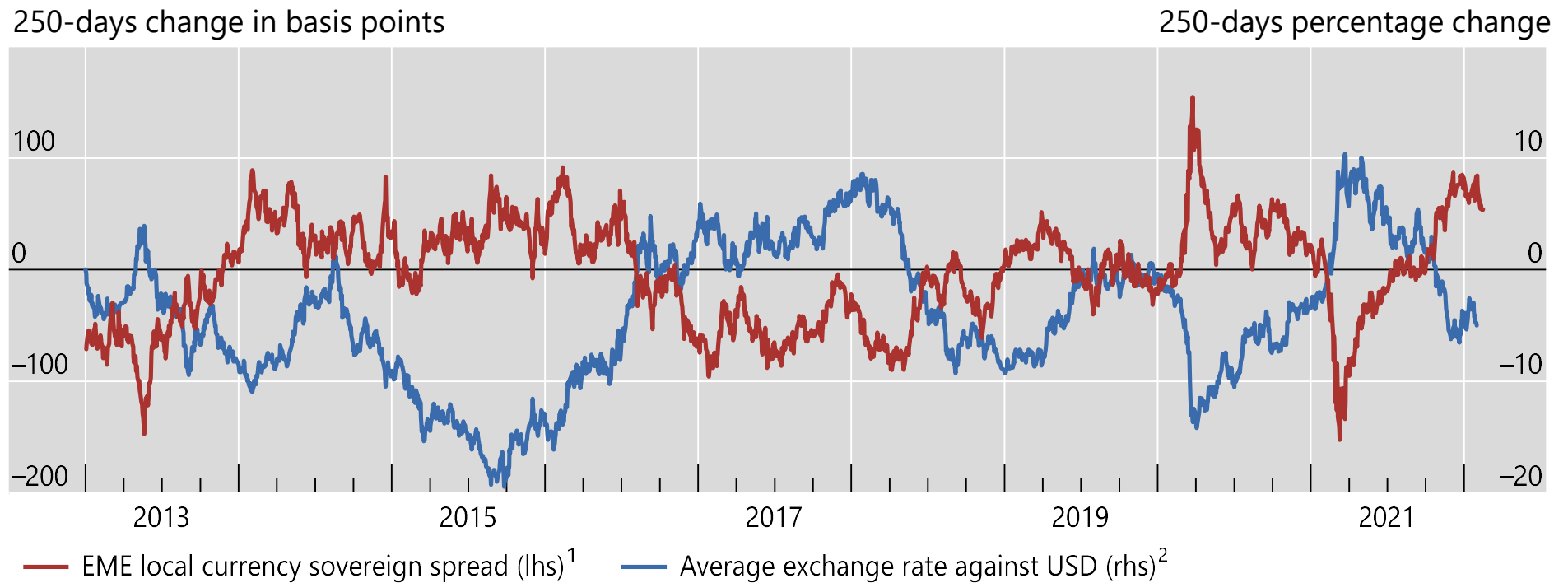
## MFSFs: Nature

- Policy frameworks designed to durably safeguard macro-financial stability by...
  - ...mitigating the build up of vulnerabilities
  - ....building policy buffers to enhance resilience
  
- Elements of an MFSF
  - Monetary and fiscal policy (BIS (2023))
  - Complementary policies
    - Macroprudential policies (MaPPs)
    - FX intervention

## MFSFs: Origins

- Long tradition of work on MFSFs at the BIS
  - Crocket (2000), BIS (2004, 2005, 2008)
  
- Recent work on MFSFs and external financial conditions
  - BIS (2019)
  - Subsequent reports by member central banks (ACC (2020), CCA (2021))
  - BIS report to the G20 FMCBG (2022)

## MFSFs and external financial conditions



<sup>1</sup> JPMorgan GBI-EM Broad diversified index spread over the 10-year US Treasury yield. <sup>2</sup> Weighted average using the country weights (excluding EG, DO, RO and UY) of the JPMorgan GBI-EM Broad diversified index as of 31 January 2022.

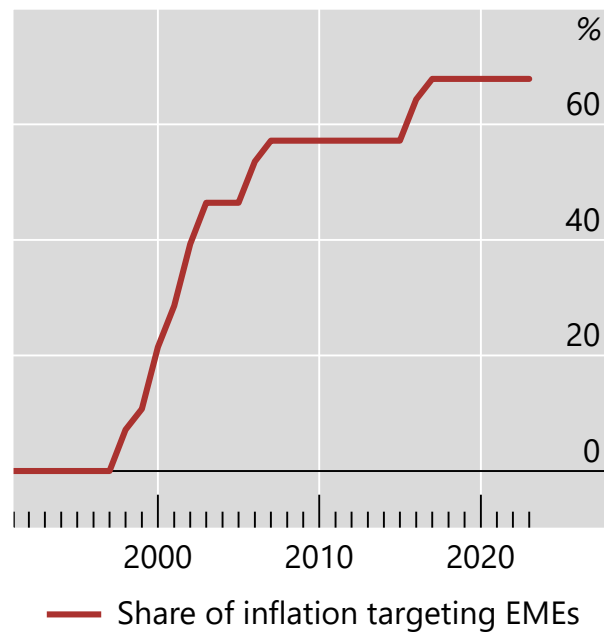
Sources: Bloomberg; JPMorgan Chase; BIS calculations.

## External financial conditions and monetary policy trade-offs

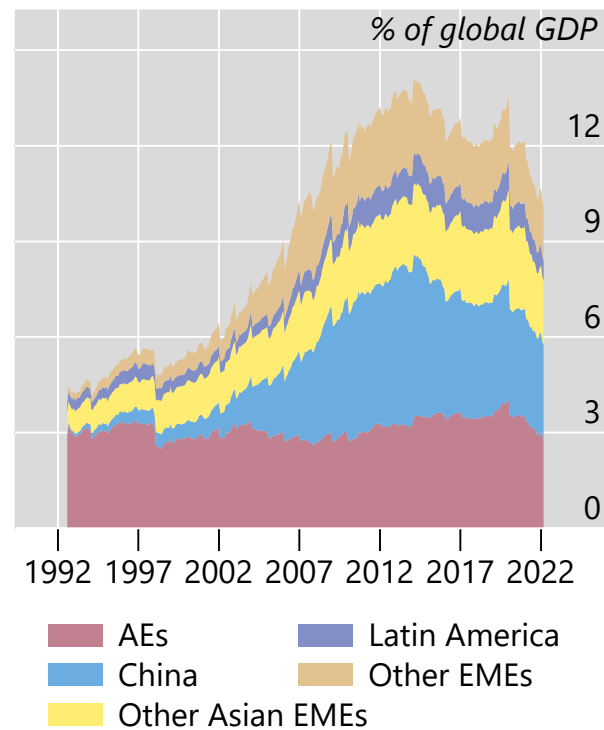
- Impact on domestic financial conditions gives rise to monetary policy trade-offs
  - Intra-temporal: inflation and output may be pushed in opposite directions (e.g. capital outflow may be inflationary and contractionary)
  - Inter-temporal: short- and long-run risks to price stability may be affected differently (e.g. capital inflow may be disinflationary but promote financial imbalances)
  
- MaPPs and FX intervention can improve trade-offs
  - Lean against imbalances and enhance resilience

## Inflation targeting, FX reserves and macroprudential policies

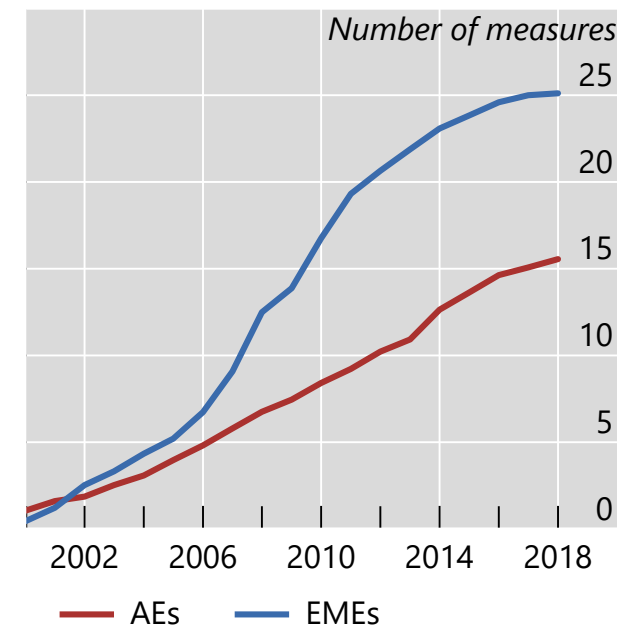
### Inflation targeting



### FX reserves



### Macroprudential regulation

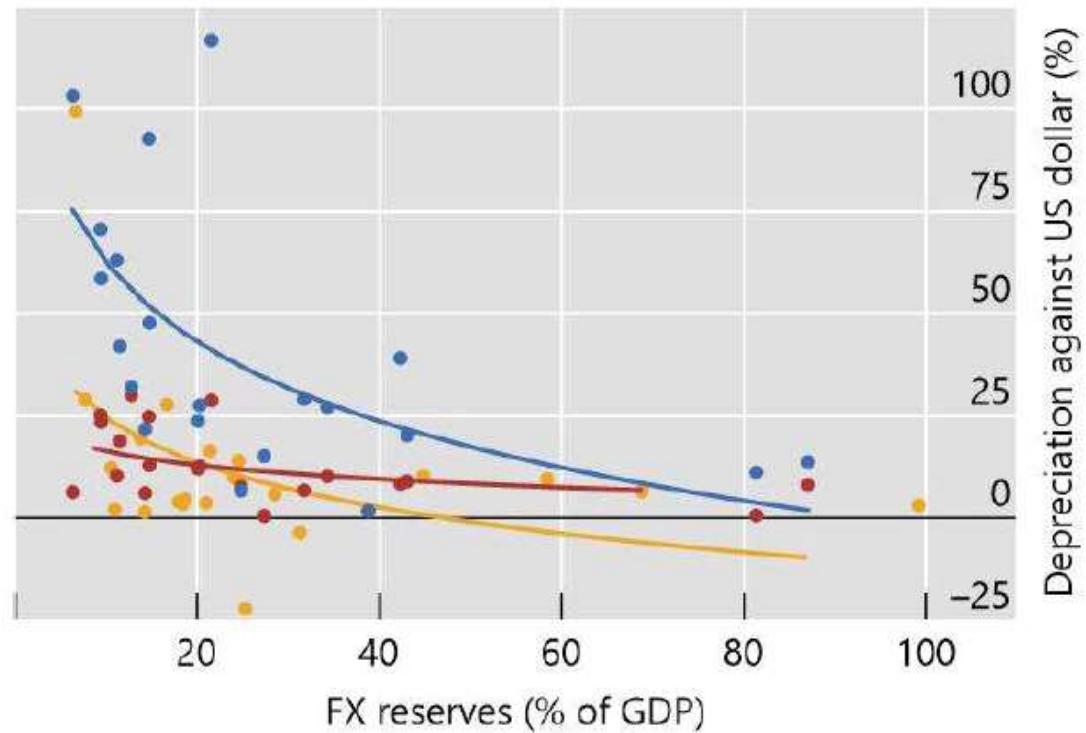


## The macroprudential features of FX reserves

- Reserve accumulation for precautionary motives
  - Self-insurance against large devaluations and capital outflows and their repercussions on macro-financial stability
- FX intervention for stabilisation motives
  - FX intervention leaning against unwanted swings in the exchange rate and capital flows and their repercussions on domestic credit conditions



## FX reserves cushion impact of major shocks in EMEs

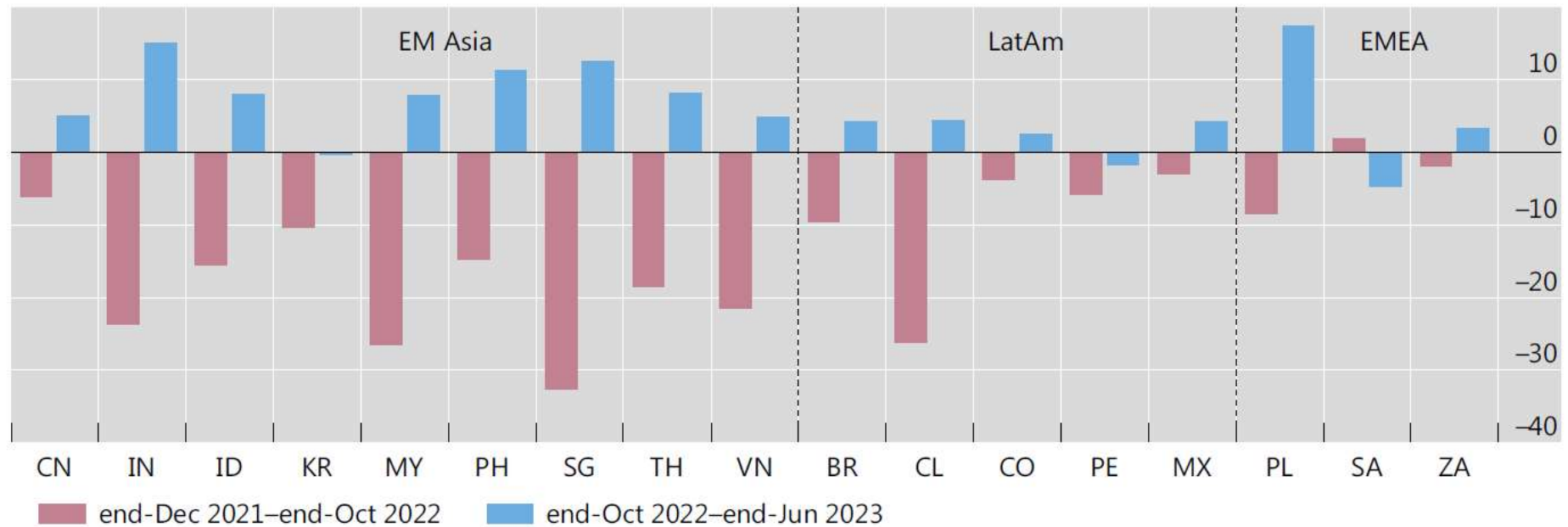


- x-axis: 2012  
y-axis: Q1 2013–Q4 2015
- x-axis: 2019  
y-axis: Jan–Mar 2020<sup>6</sup>
- x-axis: Q2 2021  
y-axis: Q3 2021–Q2 2022<sup>7</sup>

## Recent FX interventions

### Change in FX reserves in 2022–23

In per cent



FX reserves include net forward positions.

Sources: IMF; BIS.

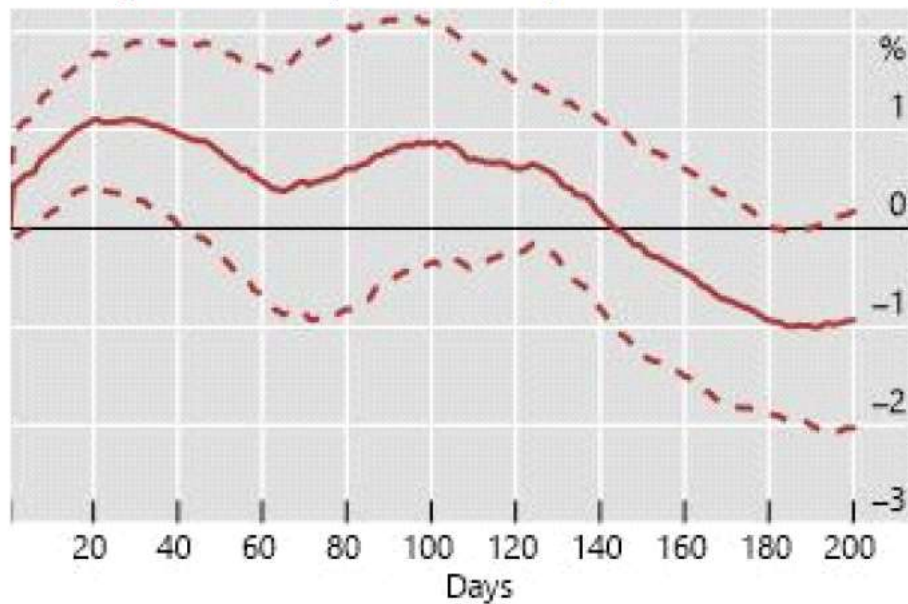
## FX intervention and credit conditions: Channels

- Exchange rate channel
  - FX intervention affects credit through exchange rate via currency mismatches (original sin/original sin redux)
  
- Sterilisation channel
  - Sterilisation operation altering bond supply affects credit supply through bank balance sheet constraints
  
- Sterilised FX purchases dampen credit expansion through two effects (Hofmann, Shin and Villamizar-Villegas (2019)) :
  - Exchange rate depreciation tightening financial conditions
  - Increasing the supply of bonds to be absorbed by banks limiting their balance sheet capacity

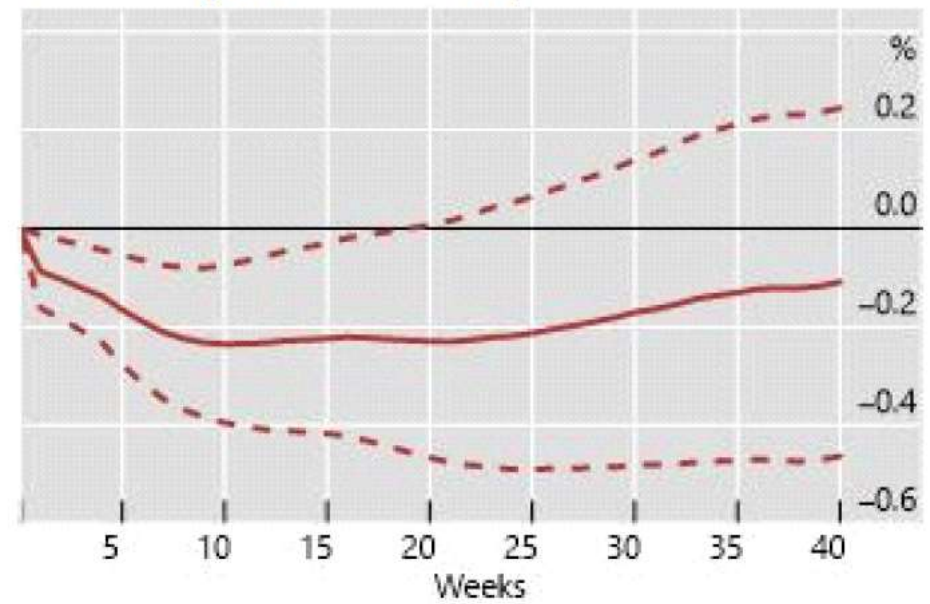
## Dynamic impact of FX purchase shock

- Daily data for Columbia (Hofmann, Shin and Villamizar-Villegas (2019))

Exchange rate (COP per USD), daily



Stock of corporate loans, weekly



## FX intervention and credit conditions: testing the channels

- Firm-level analysis testing the channels through firm-level FX debt and bank-level capitalization (Hofmann, Shin and Villamizar-Villegas (2019))
- The negative effect of FX purchases on new firm loans...
  - ...increases with FX debt of the firm (consistent with exchange rate channel operating through borrower balance sheets)
  - ...decreases with bank capitalisation (consistent with sterilisation channel)

## Conclusions

- “Macroprudential” goes beyond MaPPs
  - Whole policy framework should incorporate macroprudential features (MFSFs)
- Swings in external financial conditions raise difficult trade-offs for monetary policy, making the case for activation of complementary policies
  - MaPPs
  - FX intervention
- FX intervention has macroprudential features that can help mitigate trade-offs (together with MaPPs)