

GLOBAL FINANCIAL STABILITY REPORT

APRIL 2026



CHAPTER 2

Capital Flows to Emerging Markets: The Role of Global Non-Bank Investors

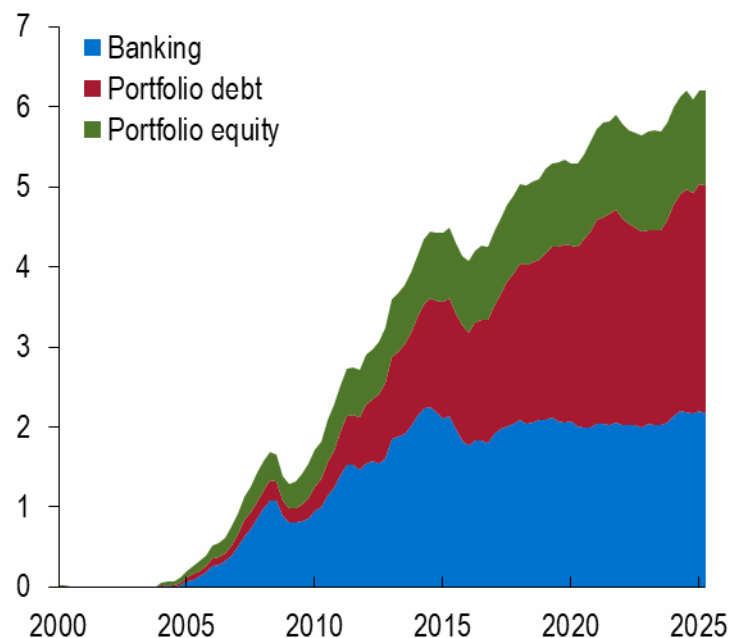
2026 IMF-WIFPR Conference on the
Evolving Global Financial Architecture:
Nonbanks, Stablecoins, and Tokenization

Washington, DC
June 16, 2026

Emerging markets are increasingly relying on “nonbank” sources for financing

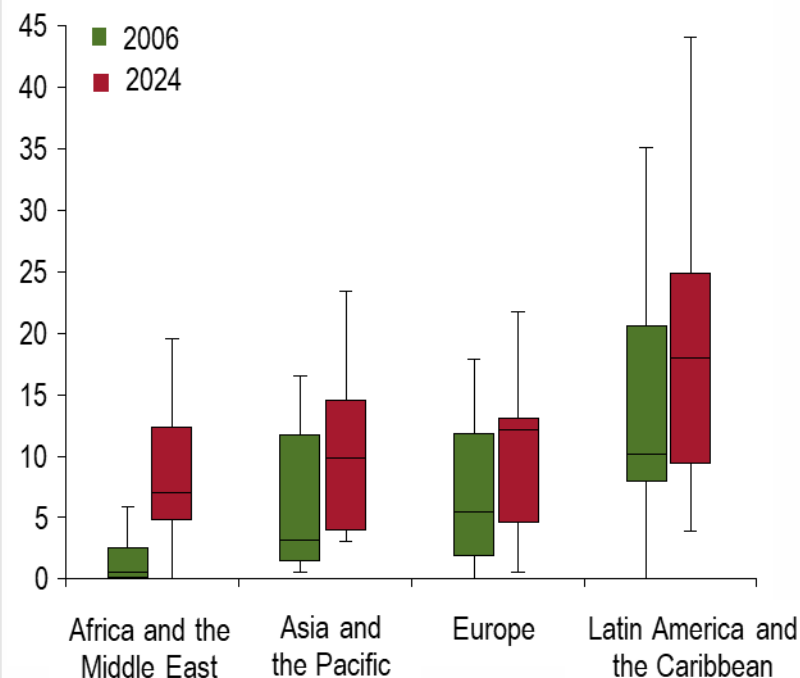
Since the GFC, portfolio flows to EMs have surged, especially debt flows ...

Cumulative nonresident portfolio and banking flows to EMs (trillion of US dollars)



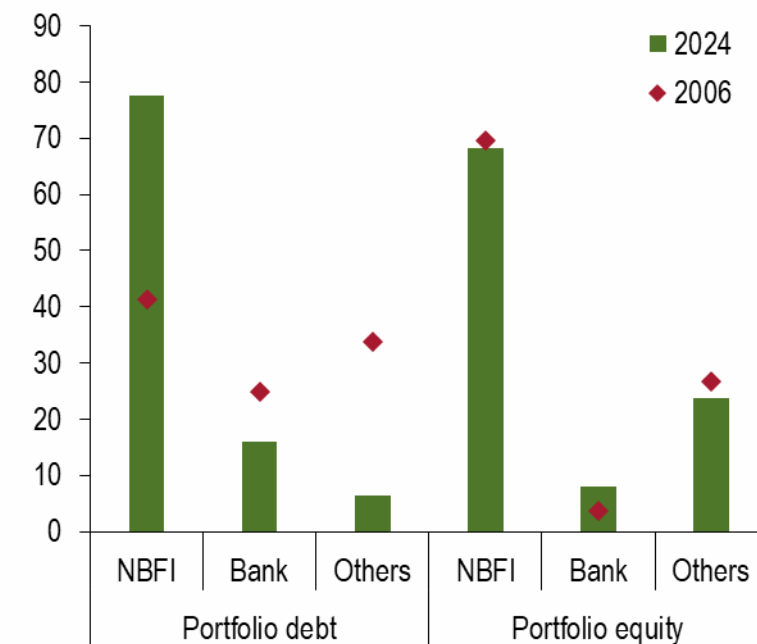
... which are sizeable ...

External Portfolio Debt Liabilities (Percent of GDP, interquartile range, median)



... and largely intermediated by global non-bank financial investors

Share of nonresident NBFIs sector in portfolio debt and equity investment in EMs (percent)

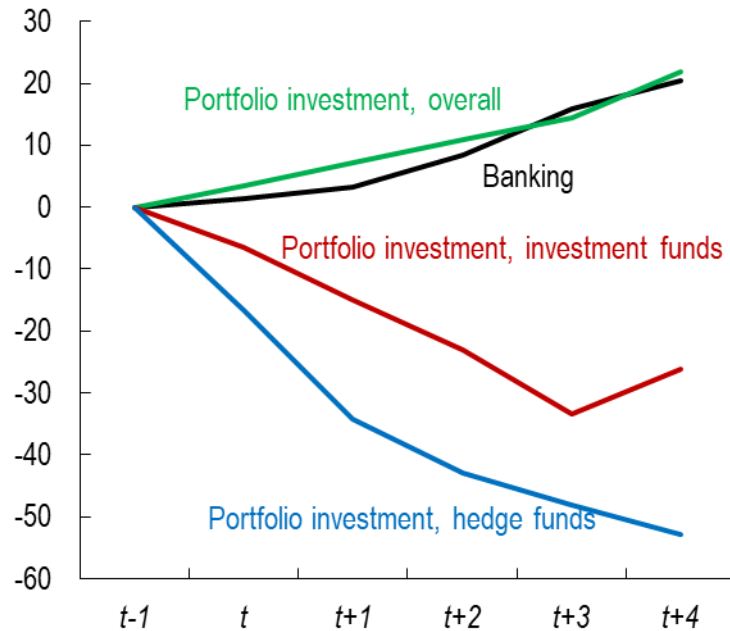


Non-bank flows bring substantial benefits but can also create challenges ...

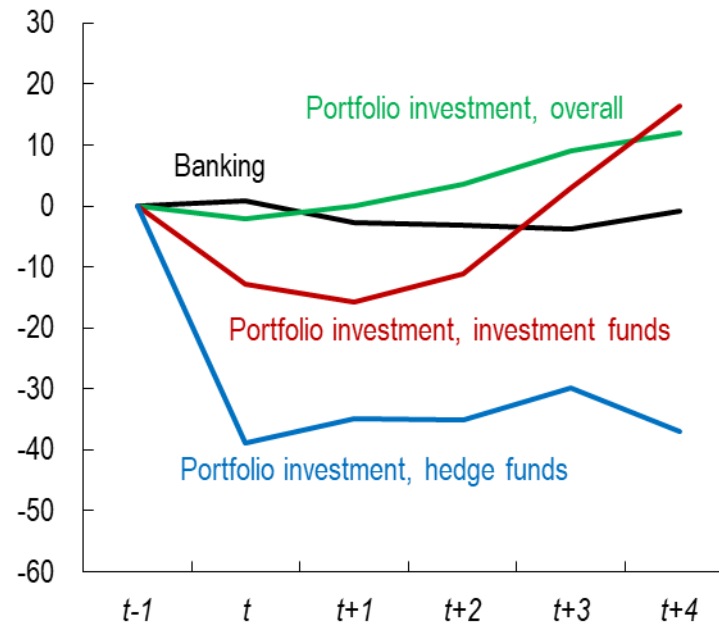
Emerging markets have experienced significant reversals in investment and hedge fund flows during major episodes of market stress since the global financial crisis.

Cross-Border Portfolio and Bank Liability Flows
(Cumulative quarterly flows as a percent of initial stock)

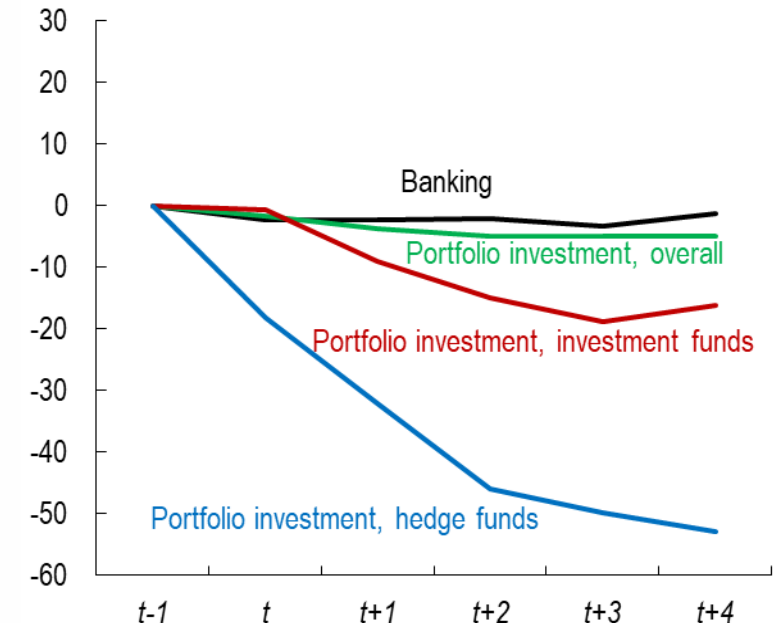
1. Taper Tantrum (2013:Q1)



2. COVID-19 Pandemic (2020:Q1)



3. Policy Tightening by the US Federal Reserve (2022:Q1)



Sources: Bank for International Settlements; Emerging Portfolio Fund Research; FactSet; IMF, Balance of Payment Statistics; and IMF staff calculations.

Note: Portfolio investment flows include portfolio debt and equity liability flows, except in panel 1 where portfolio investment of hedge funds includes equities only because of data limitations. On the x-axis, t indicates the quarter of the respective shock: the first quarter of 2013 in panel 1, the first quarter of 2020 in panel 2, and the first quarter of 2022 in panel 3.

Key questions

1. How strongly does the nonresident NBFIs sector transmit global risk shocks to EMs?

Comparison with the banking sector, pre- vs post-GFC, EMs vs AEs, non-linearities, ...

2. Which types of NBFIs investors in EMs are most sensitive to global risk shocks? Why?

Comparison across mutual funds, hedge funds, insurers, pension funds; and within the mutual fund/ETF universe, ...

3. How does exposure to risk-sensitive investors impact macro-financial stability during episodes of global market stress?

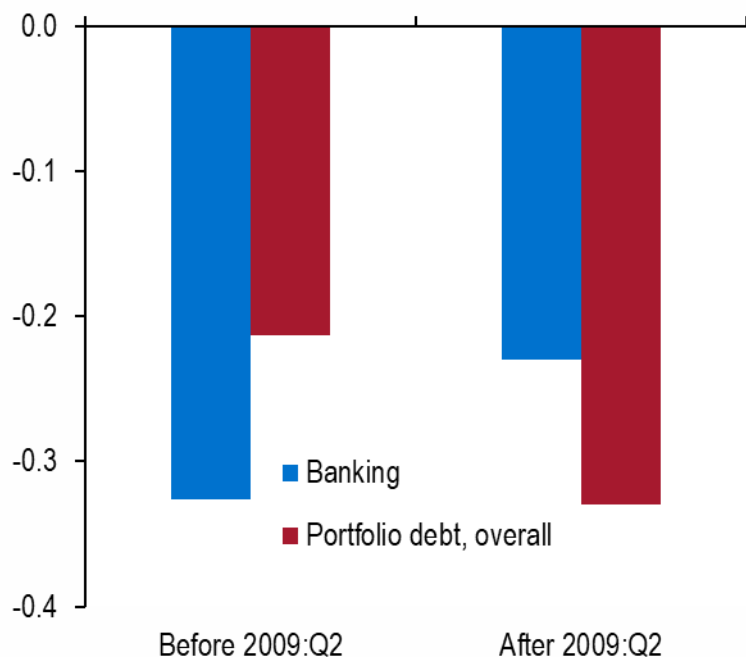
Data:

- ❖ Macro-level data (2003-2025): BIS LBS; IMF BOP, PIP/CPIS, WEO; ICRG; CBOE; Fed FRED.
- ❖ Security-level portfolio holdings of ~7K institutional investors, ~4K mutual funds / ETFs
 - ... investing in ~50 recipient EMs (2010-2025): FactSet; Lipper; Dealogic; LSEG; MSCI; Worldscope.

Nonbank financial investors are highly sensitive to global risk conditions

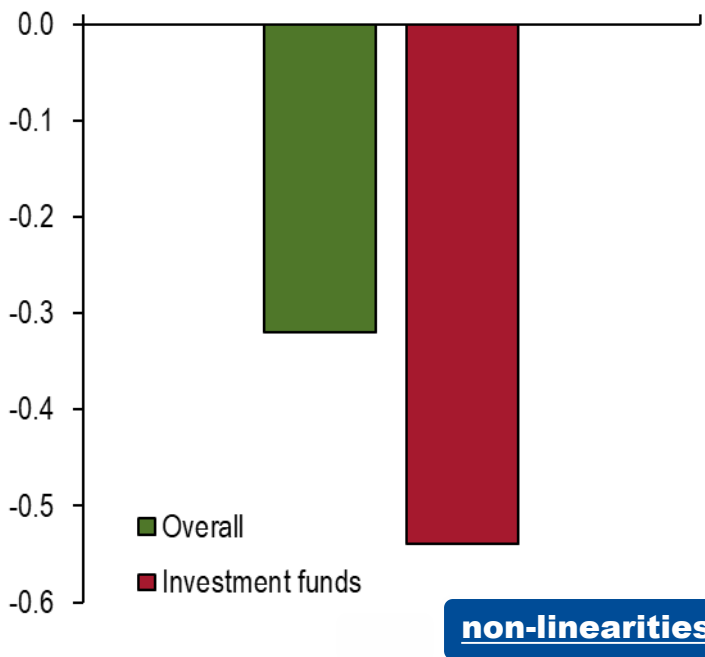
The sensitivity of cross-border bank lending to global risk has declined relative to portfolio debt flows.

Banking and portfolio debt liability flows to EMs relative to GDP following an increase in the VIX (standard deviations)



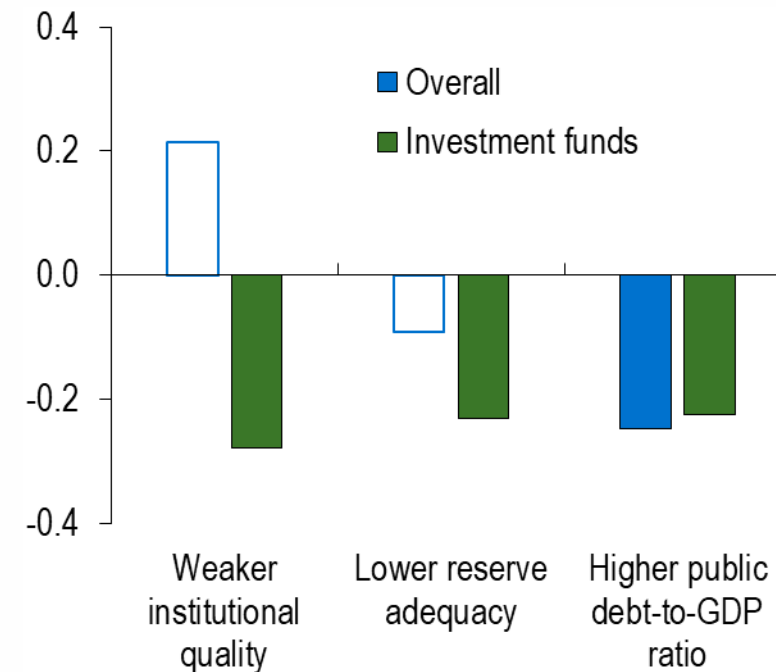
Bond fund flows are particularly sensitive to global risk.

Portfolio debt liability flows to EMs relative to GDP following an increase in the VIX (standard deviations)



Bond funds retrench more strongly from countries with preexisting vulnerabilities.

Portfolio debt liability flows to EMs relative to GDP following an increase in the VIX (standard deviations)

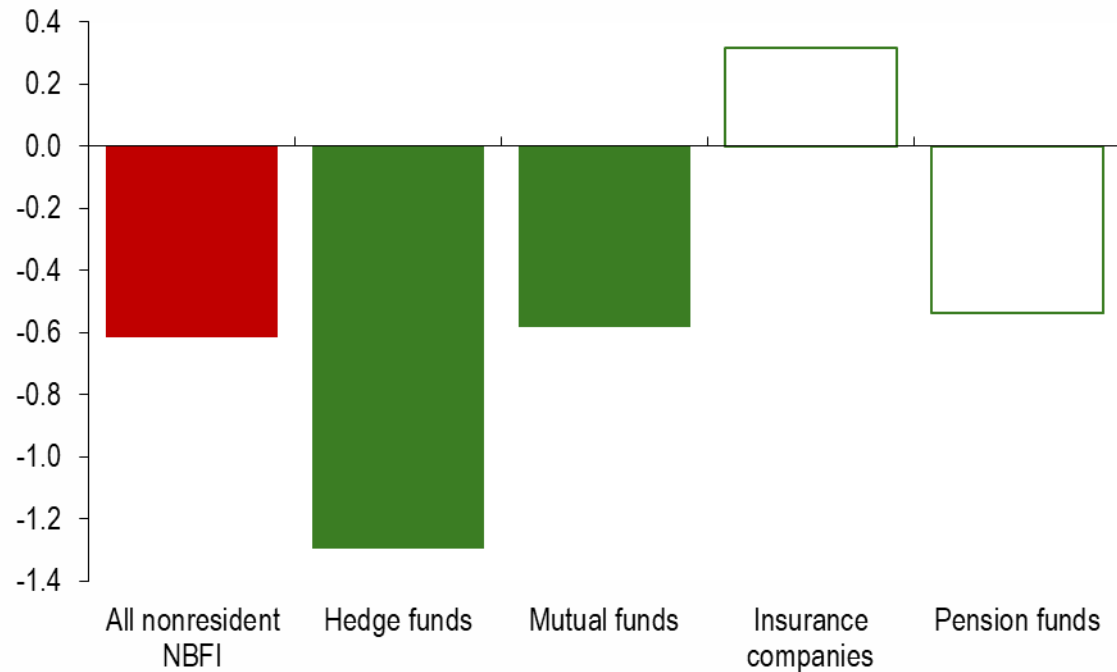


Notes: Regressions include a large set of country controls, and year fixed effects or various other global risk factors. The results are largely robust to using various other global factors, e.g., risk-on risk-off (RORO) index, the World Uncertainty Index (WUI), and the US Dollar Index (DXY). Solid bars indicate that the reported effect is statistically significant at 10 percent. 5

There is significant heterogeneity across and within types of NBFIs ...

Hedge funds and mutual funds are most sensitive to global risk ...

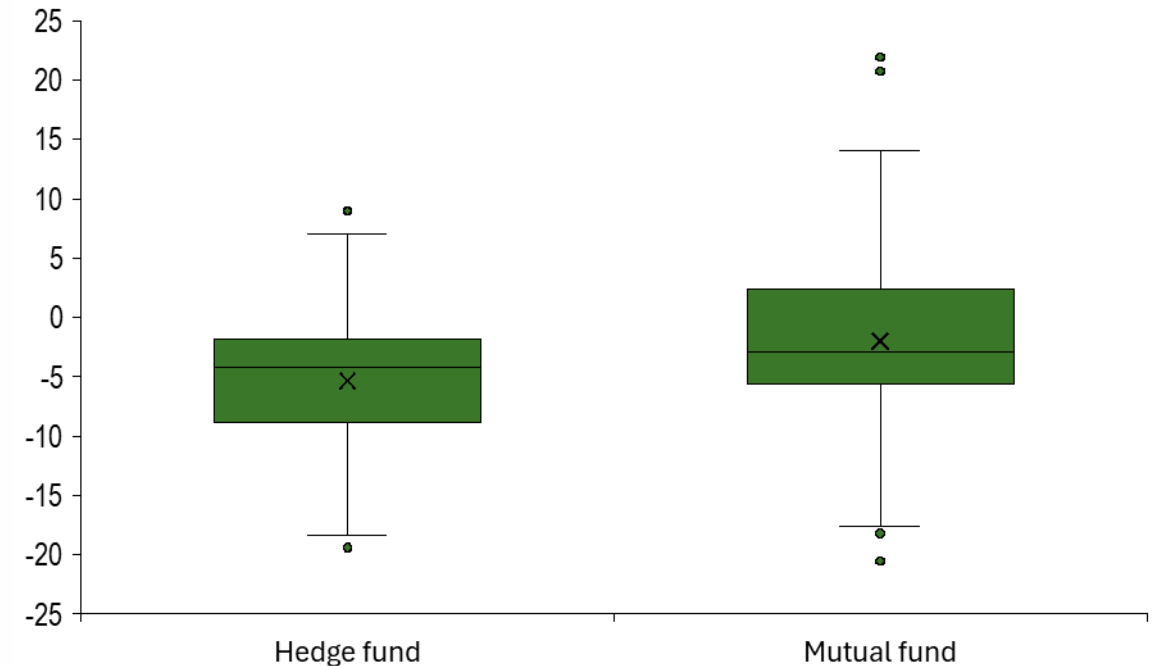
Change in nonresident investments after an increase in the VIX (percentage points, relative to initial holdings)



Notes: The reported effects are valuation-adjusted, expressed relative to initial holdings, and benchmarked against residents. Solid bars indicate that the estimated effect is statistically significant at 10 percent.

... with substantial heterogeneity across funds

Change in nonresident investments after an increase in the VIX (percentage points, relative to initial holdings)

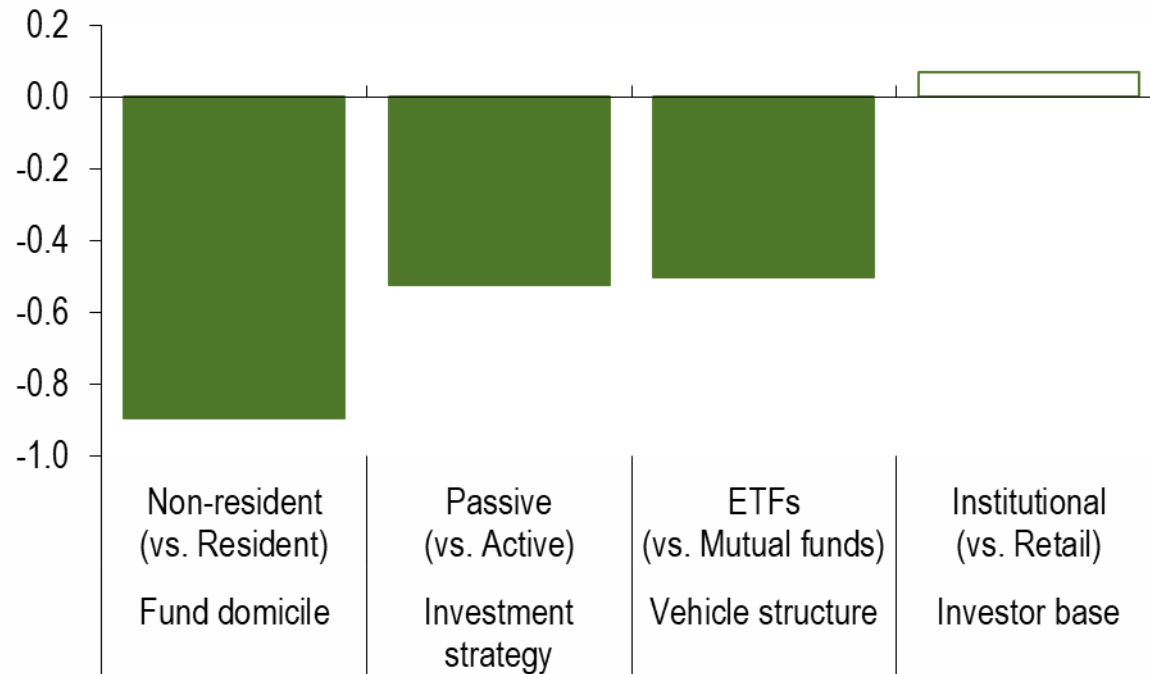


Notes: The boxes represent the interquartile ranges, "x" and "-" denote the average and the median sensitivity, respectively, and the whiskers illustrate the range of the estimates, excluding outliers, which are shown by the dots outside the whiskers.

... and among mutual funds and ETFs.

Nonresident passive funds and exchange-traded funds tend to be more sensitive to the VIX.

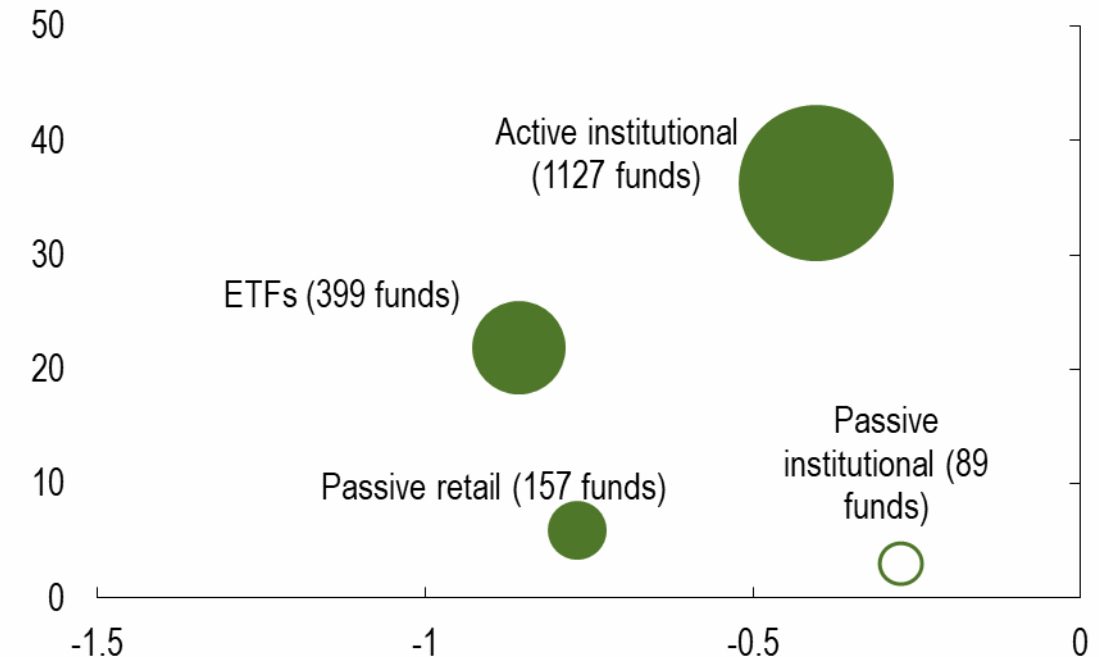
Change in nonresident investments after an increase in the VIX
(Percentage points, relative to initial holdings, valuation adjusted)



Notes: The reported effects are valuation-adjusted, expressed relative to initial holdings, and benchmarked against residents. Solid bars indicate that the estimated effect is statistically significant at 10 percent.

Substantial variation within and across investor bases and fund structures, driven by end-investor flows, passthrough and portfolio rebalancing, as well as leverage/hedging.

Change in Nonresident Investments after an Increase in the VIX, by Investment Fund Type and Characteristic
(Percentage points, relative to initial holdings, valuation adjusted)

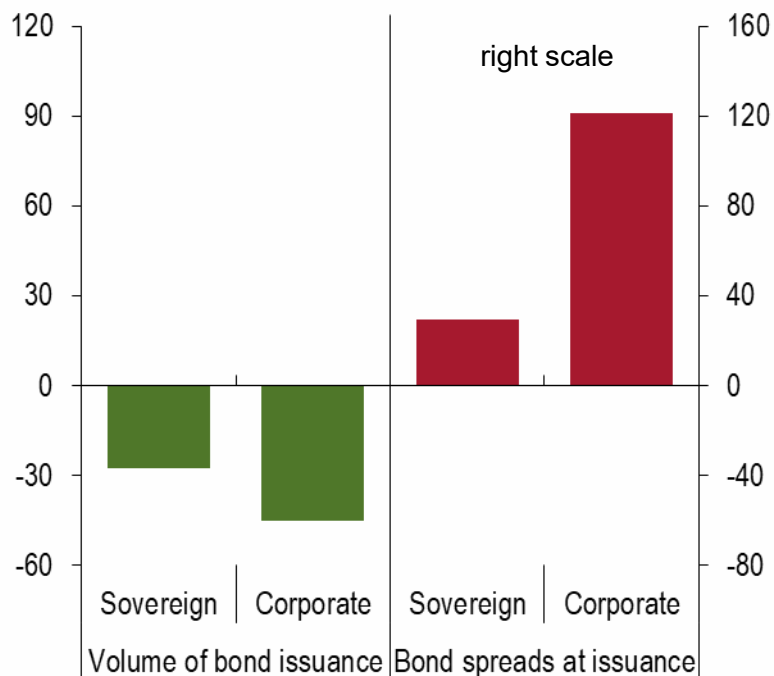


Notes: The panel reports estimated sensitivities of valuation-adjusted fund flows to the VIX, relative to active retail funds (the largest category), with size of the circles reflecting number of funds covered.

Exposure to risk-sensitive investors could lead to macro-financial stress

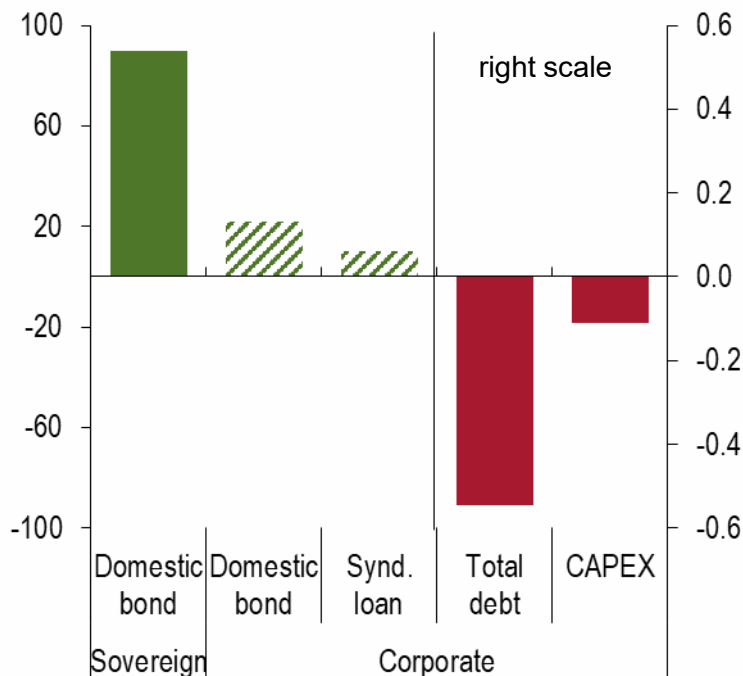
Stress episodes trigger weaker bond issuance, higher spreads ...

Volume and Spreads of Bond Issuance at International Markets for Issuers with Higher Reliance on 'Flighty' Investors
(percentage points, left scale; basis points, right scale)



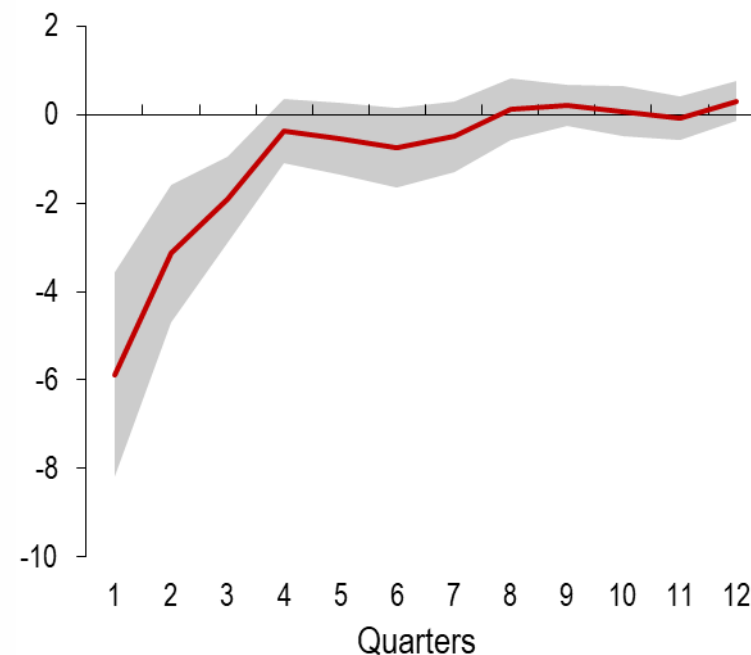
... and weaker investment for EM issuers exposed more to 'flighty' investors,

Volume of Alternative Funding for Issuers with Higher Reliance on 'Flighty' Investors
(percentage points, left scale; percent, right scale)



... with broader macro-financial implications.

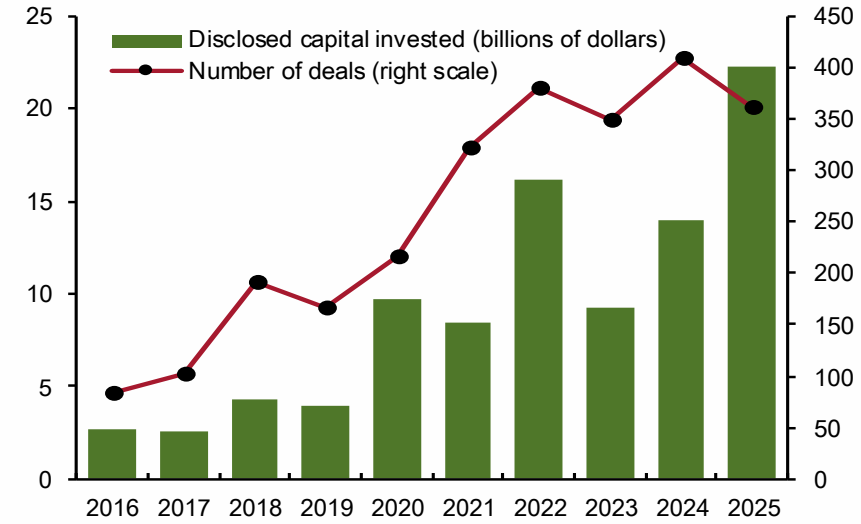
Growth-at-Risk after an Increase in the VIX for Countries with Greater Ex Ante Reliance on Flighty Investors
(Percent)



➤ Private Credit Flows to Emerging Markets

- A largely complementary role to domestic regulated institutions
- Could generate financial stability risks if it amplifies leverage or operates with limited transparency, esp. in jurisdictions where supervisory and data frameworks remain less developed

Private Credit Investment in Emerging Markets (Billions of dollars, left scale; number of deals, right scale)

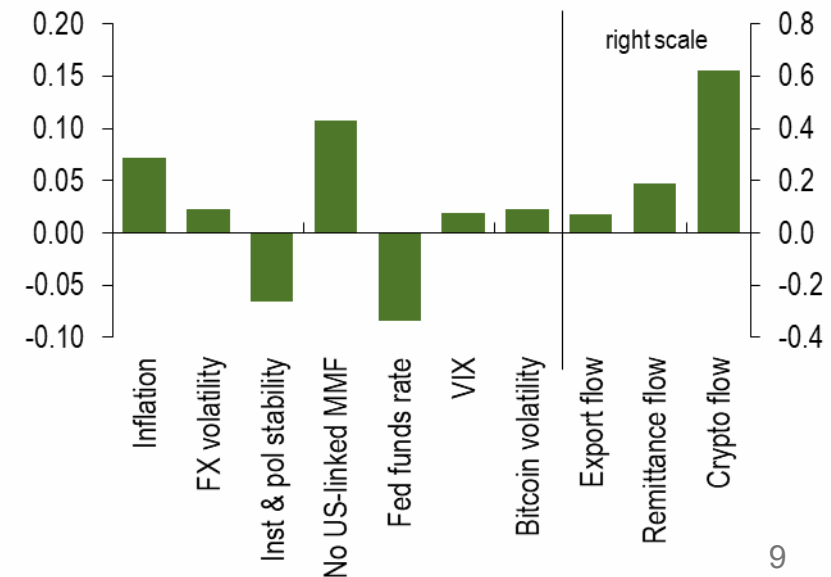


Sources: Global Private Capital Association, and IMF staff calculations.

➤ Cross-Border Stablecoin Flows to Emerging Markets

- ... respond to a range of factors: unbacked crypto activity, remittance and trade flows; inflation, institutional and political stability
- Absent adequate regulation and backstops, → risks to macrofinancial stability

Drivers of Gross Stablecoin Flows to Emerging Markets (Relative to GDP, standardized)



Sources: Chainalysis; and IMF staff calculations.

POLICY IMPLICATIONS

- **Strengthen resilience to mitigate risks from capital flow volatility by**
 - improving macroeconomic fundamentals and institutional quality
 - pursuing risk management in line with the IMF's Integrated Policy Framework
- **Use systemwide stress tests to gauge resilience**
 - ensure adequate capital and liquidity buffers at financial institutions
- **Continue deepening domestic bond markets**
 - broadening the domestic investor base (Oct '25 GFSR)
- **Foster international cooperation**
 - close regulatory gaps and limit the cross-border propagation of shocks
- **Improve regulatory reporting and international data sharing on**
 - nonbank exposures and vulnerabilities to strengthen surveillance and risk management

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Chapter 2 at a Glance

- Cross-border portfolio flows to emerging markets have risen sharply since the global financial crisis, driven largely by nonbank financial investors, with cumulative inflows approaching \$4 trillion in 2025.
- By supporting market development and expanding financing options, cross-border portfolio flows offer important opportunities but also carry risks, such as heightened sensitivity to shifts in global risk sentiment.
- Sensitivity to global risk varies significantly across the types of investors. Hedge funds and investment funds react more strongly to shifts in global risk than other nonbanks, with passive mutual funds and exchange-traded funds showing the greatest sensitivity within the investment fund sector.
- During periods of global market stress, emerging markets that are more exposed to risk-sensitive investors face tighter financial conditions—including reduced debt issuance and wider spreads—with adverse implications for macrofinancial stability.
- Robust policy frameworks can mitigate the impact of adverse shocks. Nonbank financial investors pull back less from countries with stronger institutions, ample reserve buffers, or lower fiscal risks when global risk increases.
- Cross-border private credit and stablecoin flows into emerging markets are expanding rapidly, creating opportunities but also challenges. Stablecoin flows remain closely tied to crypto market dynamics, although demand is often elevated in countries with weak fundamentals and policy frameworks, raising currency substitution concerns.

Policy Implications

- To reduce volatility in cross-border portfolio flows, countries—especially those reliant on more risk-sensitive investors—should strengthen macroeconomic fundamentals and institutional quality, build robust fiscal and external buffers, and pursue proactive risk management consistent with the IMF's Integrated Policy Framework.
- International cooperation is essential to close regulatory gaps in nonbank financial intermediation and limit the cross-border propagation and amplification of global financial shocks.
- More comprehensive disclosure and enhanced international data sharing on nonbank exposures and vulnerabilities could strengthen market surveillance and improve risk management practices.
- The rapid expansion of private credit markets and stablecoins in emerging markets warrants continued, proportionate monitoring, particularly where interlinkages with regulated financial institutions are material.

Introduction

Cross-border capital flows from the nonbank financial intermediation (NBFi) sector are an important source of funding for emerging markets. Since the

global financial crisis, nonresident portfolio flows to emerging markets—particularly investments in debt securities—have grown markedly compared with bank flows, constituting a key source of external financing for these countries (Figure 2.1, panels 1 and 2).¹ The

The authors of this chapter are Salih Fendoglu (co-team lead), Oksana Khadarina, Li Lin, Kohei Machashi, Taneli Mäkinen, Enyu Shao, Felix Suntheim (co-team lead), Mingmei Xiao, and Mustafa Yenice, with contributions from Jakree Koosakul, Corrado Macchiarelli, Andrew Usher, and Dmitry Yakovlev, under the supervision of Mahvash Qureshi. Marcin Kasperczyk served as an external advisor.

¹According to the IMF *Integrated Balance of Payments and International Investment Position Manual*, seventh edition (BPM7) portfolio investment is defined as cross-border flows and positions involving debt or equity securities, other than those included in direct investment or reserve assets. The flows discussed here refer to net incurrence of liabilities in the financial account under BPM7.

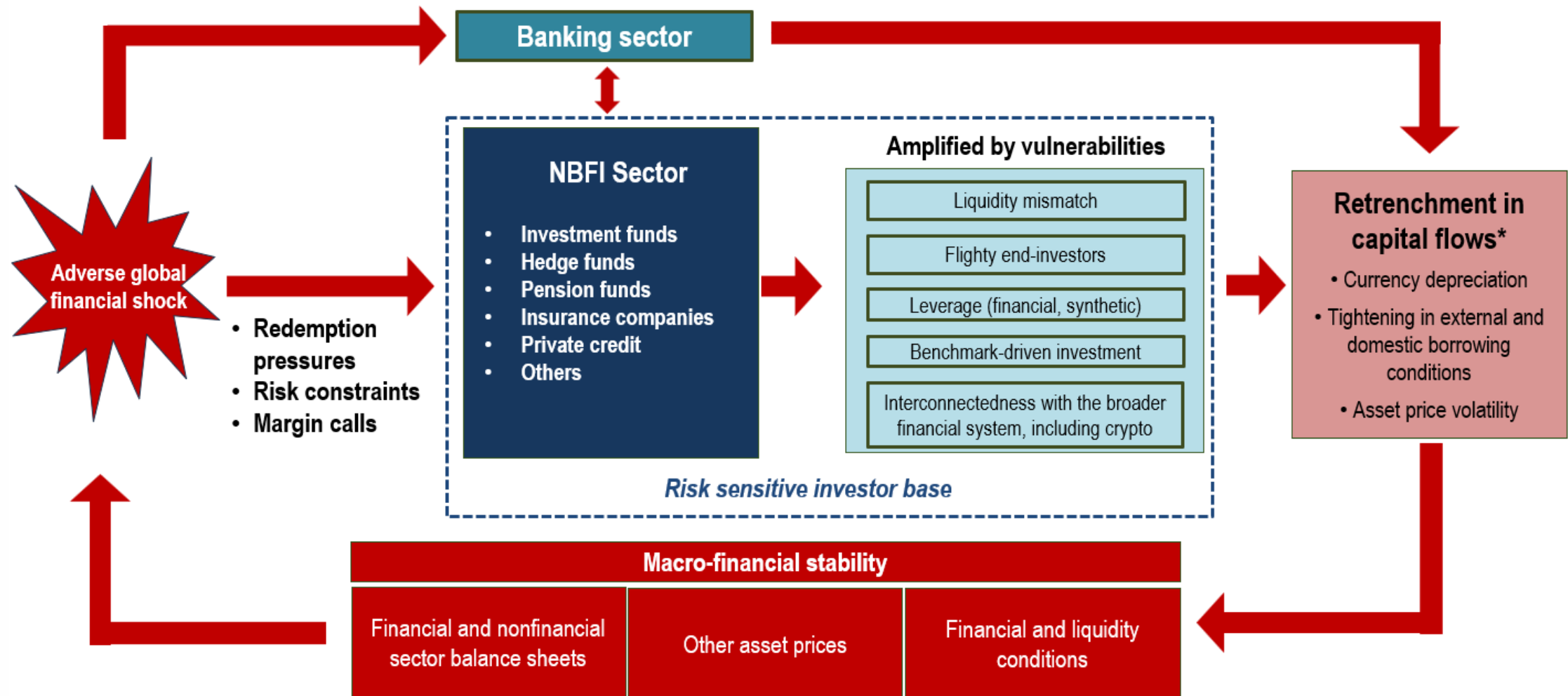
THANK YOU



Additional Slides

... through various channels.

Nonbank flows enhance access to capital and support market development but can also be amplifiers of global financial shocks.



Note: The degree of retrenchment in capital flows by nonresident NBFi also depends on borrower vulnerabilities and structural characteristics, such as the extent of external and fiscal buffers, institutional capacity, and the depth of domestic financial markets. NBFi = nonbank financial intermediation.

Methodology

Baseline specification: $Y_{c,t}^k = \beta^k \cdot \textcolor{red}{GRF}_t + \gamma^k D^{post} \textcolor{red}{GRF}_t + \eta_{c,t(y)} + \varepsilon_{c,t}^k$

$Y_{c,t}^k$: Cross-border *portfolio flows* (debt or equity, overall or intermediated by investment funds) or *banking inflows* to country c in quarter t , normalized by country c 's quarterly GDP at $t-1$ and standardized.

$\textcolor{red}{GRF}_t$: Global risk factor—VIX (baseline)

D^{post} : A dummy equal to one from 2009Q2 onward, and 0 otherwise

$\eta_{c,t(y)}$: Country-year fixed effects

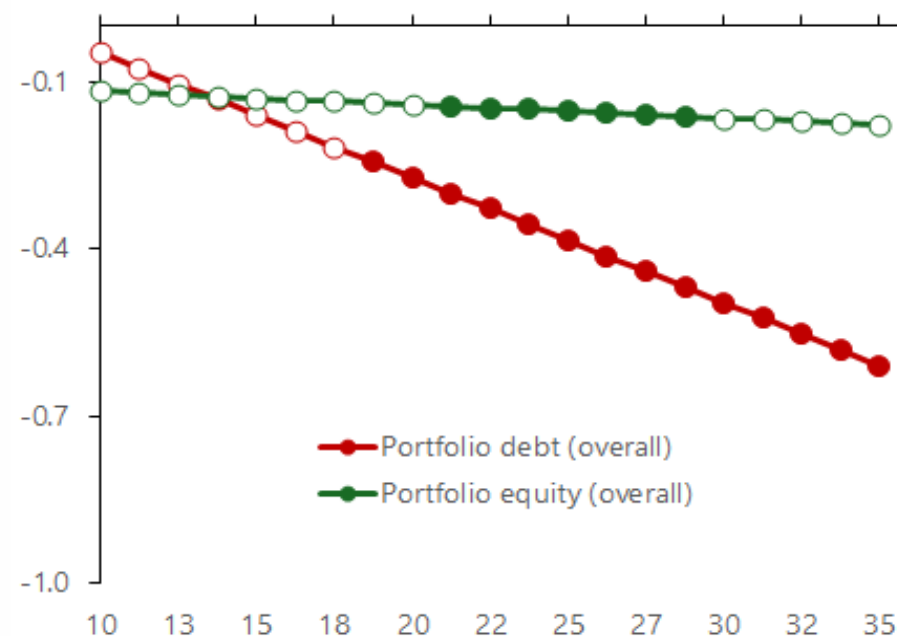
❖ Robustness and further analyses:

- ❖ a rich set of country-level and global controls.
- ❖ alternative global factors: risk-on risk-off (RORO) index, the World Uncertainty Index (WUI), and the US Dollar Index (DXY).
- ❖ different samples (EMs vs AEs).

The impact of VIX on flows is state-dependent

An increase in VIX has a greater impact on (debt) flows when VIX is high.

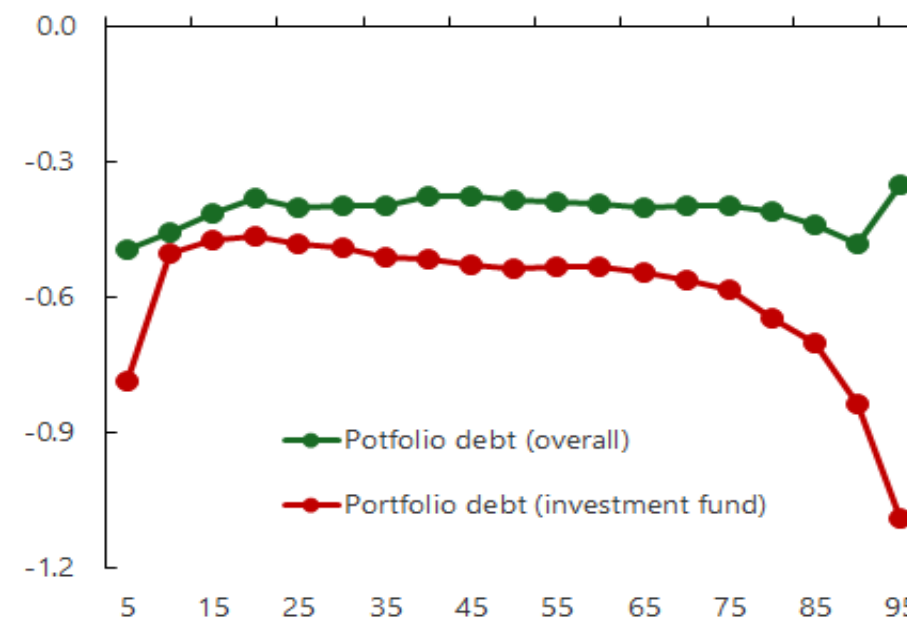
Sensitivity of Portfolio Liability Flows to Emerging Markets Following an Increase in the VIX, at Different Levels of the VIX, Post-2009Q2



Sources: Bank for International Settlements; IMF, Balance of Payments Statistics; IMF, World Economic Outlook database; and IMF staff calculations. Notes: Solid markers indicate statistical significance at 10 percent or lower, and hollow markers indicate that the estimated effect is not statistically significant.

Investment fund flows are most sensitive to global risk factors when flows-to-GDP is at tails.

Effect of a one-standard-deviation increase in the VIX on portfolio debt liability flows, at different percentiles of the flows, Post-2009Q2

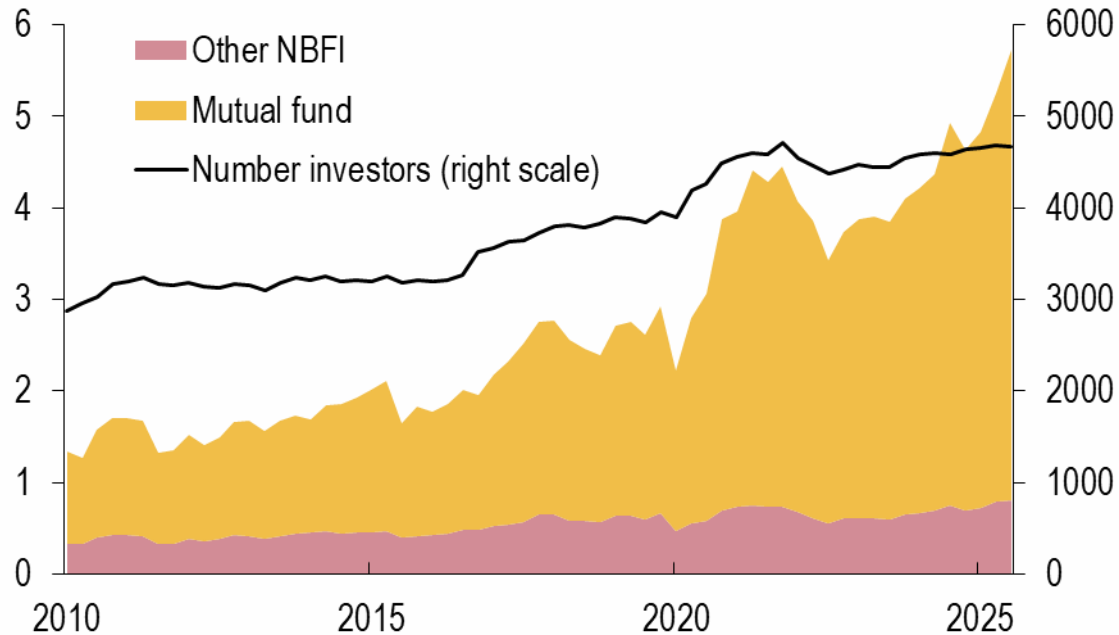


Sources: Emerging Portfolio Fund Research; IMF, Balance of Payments Statistics; IMF, World Economic Outlook database; and IMF staff calculations. Notes: Solid markers indicate statistical significance at 10 percent or lower, and hollow markers indicate that the estimated effect is not statistically significant.

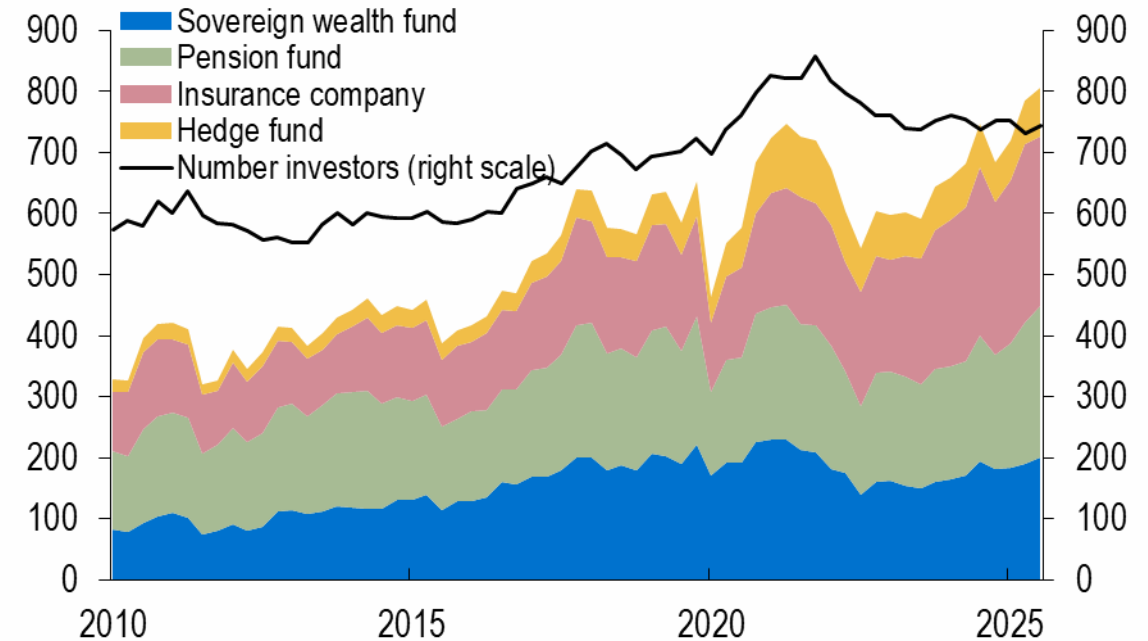
Stylized Facts and Data Coverage

Emerging markets securities holdings of nonbanks have increased substantially over the sample period

Emerging Market Security Holdings of the Nonbanks Covered by FactSet (Trillions of dollars; number of investors)



Emerging Market Security Holdings of Reporting Nonbanks Other than Mutual Funds (Billions of dollars; number of investors)



Sources: FactSet; and IMF staff calculations.

Note: Compared with the PIP (formerly CPIS), FactSet Ownership provides reasonable coverage, capturing roughly 65 percent of the total portfolio equity positions intermediated by non-bank financial institutions in the PIP. For debt securities, coverage has gradually increased over time, reaching close to 25 percent in 2024.

Baseline specification:

$$\frac{\Delta_{i,t} \text{ Holdings}_{i,j,t} - \text{Holdings}_{i,j,t-1}}{\text{Holdings}_{i,j,t-1}} = \gamma_{f,s,t} + \delta_{f,j,s} + \beta \cdot \text{GRF}_t \cdot \text{Nonresident}_{i,j} \cdot \text{Type}_j + \eta_{i,j,t}$$

where: i indexes a security, f the issuer of the security, s the type of the security (bond/equity), j an investor, t a quarter, $\Delta_{i,t}$ captures valuation changes between t and $t-1$, GRF_t denotes the global risk factor, $\text{Nonresident}_{i,j}$ is an indicator equal to 1 when investor j is a nonresident investor for security i , and 0 otherwise, and Type_j denotes the type of the nonresident investor j .

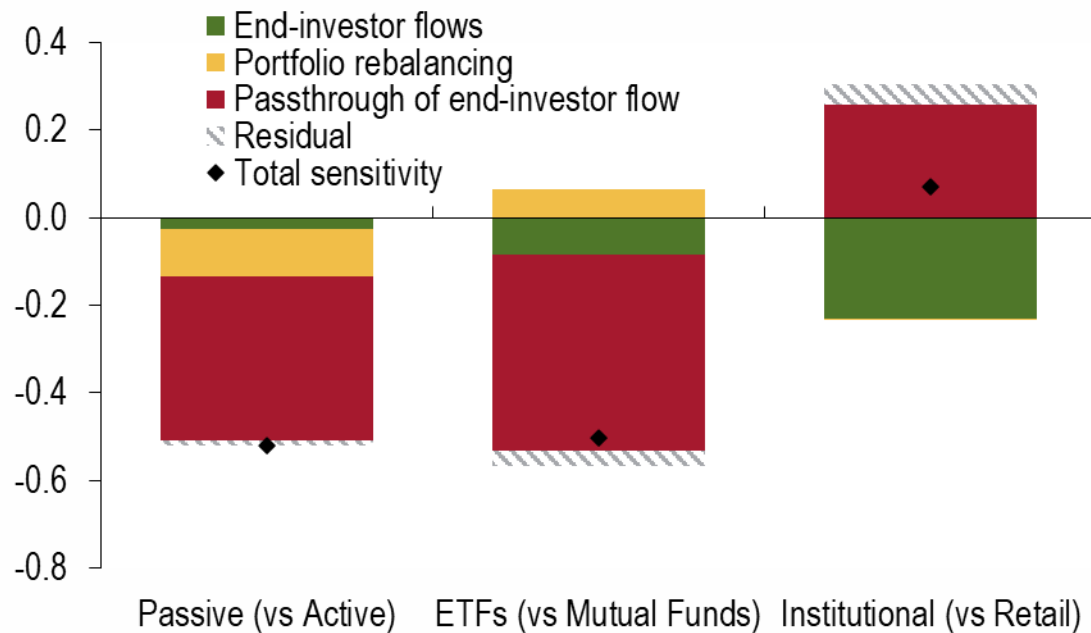
Fixed effects:

- ❖ $\gamma_{f,s,t}$ (issuer-security type-time FE) : captures the common factors affecting the changes in the debt and equity holdings of all investors in the sample in each period.
- ❖ $\delta_{f,j,s}$ (issuer-investor-security type FEs): captures the time-invariant issuer and security type characteristics that affect the demand of the investor for the securities of the issuer.

... driven by various fund characteristics
(end-investor flows, passthrough, and leverage/hedging).

End-investor flows, their passthrough, and portfolio rebalancing drive changes in nonresident holdings.

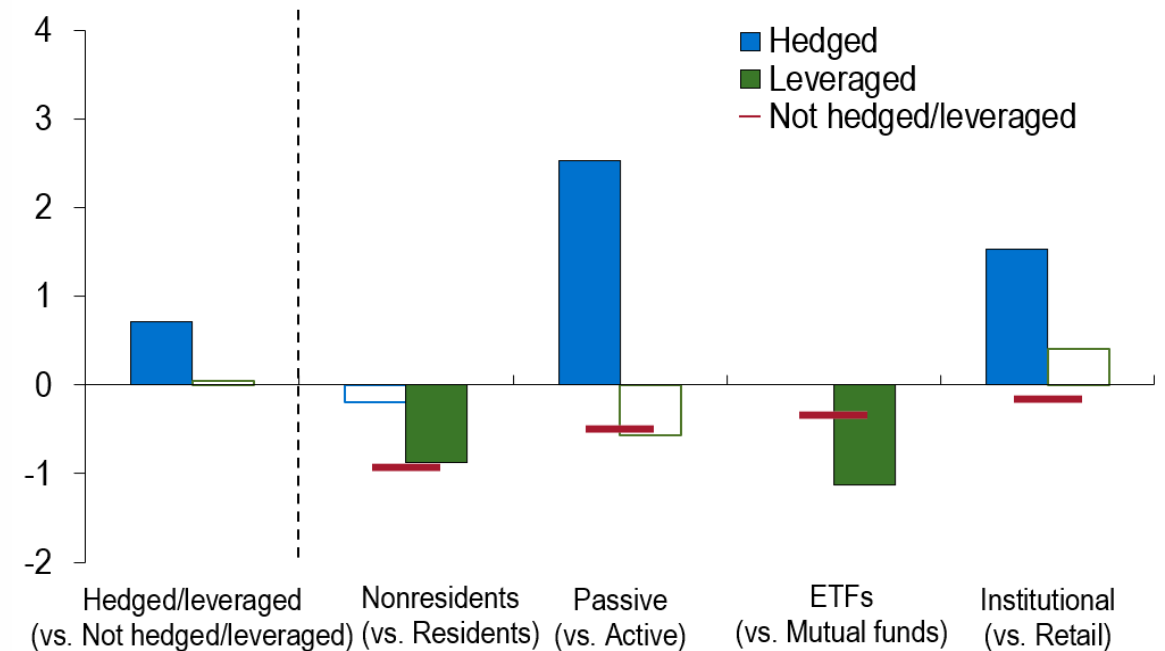
Decomposition of Sensitivity to VIX of Non-Residents' Flows to Emerging Markets; Across Fund Characteristics
(Percentage point, relative to initial holdings, valuation-adjusted)



Sources: FactSet, Lipper, MSCI, and IMF staff calculations.

Hedging dampens global risk sensitivity, whereas leverage amplifies it.

Change in Nonresident Investment after a VIX Increase, by Fund Characteristic
(Percentage point, relative to initial holdings, valuation-adjusted)



Sources: FactSet, Lipper, MSCI, and IMF staff calculations.

[back](#)

Methodology

Baseline specification:

$$Y_{i,t} = \alpha + \beta \text{Share}_{c,t-1} + \gamma \text{Share}_{c,t-1} GRF_{t-1}^D + \delta GRF_{t-1}^D + X_{i,t-1} + \varepsilon_{i,t}$$

$Y_{i,t}$:

- i) Volume of bond issuance of sovereign/firm i at quarter t
- ii) Spread at issuance of sovereign/firm i at quarter t
- iii) Total debt / capital expenditure (relative to total assets) of firm i at quarter t

$\text{Share}_{c,t-1}$:

Share of risk-sensitive NBFIs in the investor base of sovereigns/firms in country c at quarter $t-1$

GRF_{t-1}^D :

=1 if global risk factor is higher than its 90th percentile (stress period)

$X_{i,t-1}$:

Security characteristics, such as rating and duration, and issuer characteristics, such as firm-level cash buffers and leverage ratios (control variables)

Box 1. Private Credit Flows to Emerging Markets

➤ Small but rising

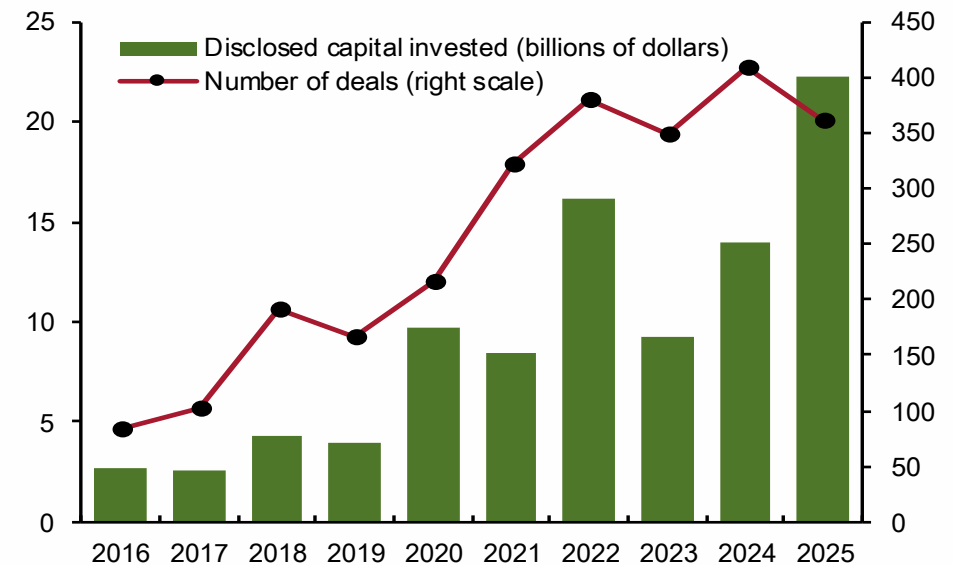
- EMs account for less than 5 percent of the global total AUM of private credit funds (less than 5 percent)
- EM private credit AUM roughly \$50 billion and \$100 billion, a fivefold increase over the past decade

➤ A largely complementary role to domestic regulated institutions

➤ Could generate financial stability risks

- if it amplifies leverage or operates with limited transparency, particularly in jurisdictions where supervisory and data frameworks remain less developed

Private Credit Investment in Emerging Markets
(Billions of dollars, left scale; number of deals, right scale)



Sources: Global Private Capital Association, and IMF staff calculations.

Box 2. Rising Cross-Border Stablecoin Flows to EMs

➤ Small but rising

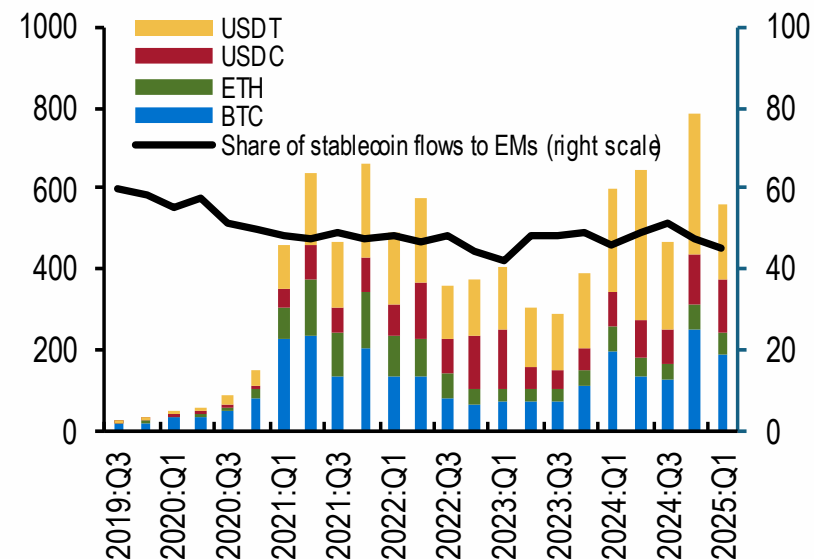
- Cross-border crypto activity has risen sharply in recent years, with stablecoin flows accounting for a sizable and rising share of total activity

➤ Gross stablecoin inflows into emerging markets respond to a range of factors

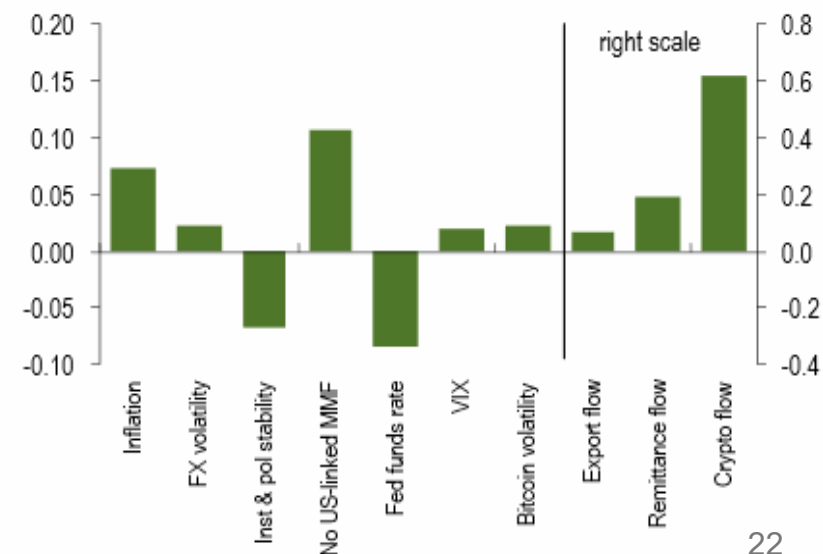
- unbacked crypto activity, remittance and trade flows, inflation, institutional and political stability

➤ Absent adequate regulation and backstops, stablecoins may also pose risks to macrofinancial stability

Cross-Border Crypto Flows
(Billions of dollars, left scale; percent, right scale)



Drivers of Gross Stablecoin Flows to Emerging Markets
(Relative to GDP, standardized)

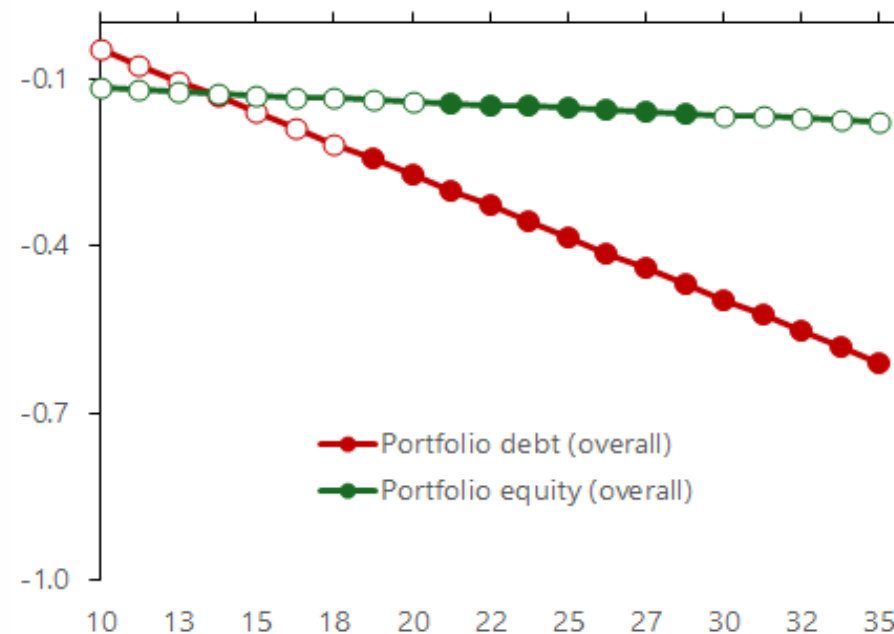


Sources: Chainalysis; and IMF staff calculations.

The impact of VIX on flows is state-dependent

An increase in VIX has a greater impact on (debt) flows when VIX is high

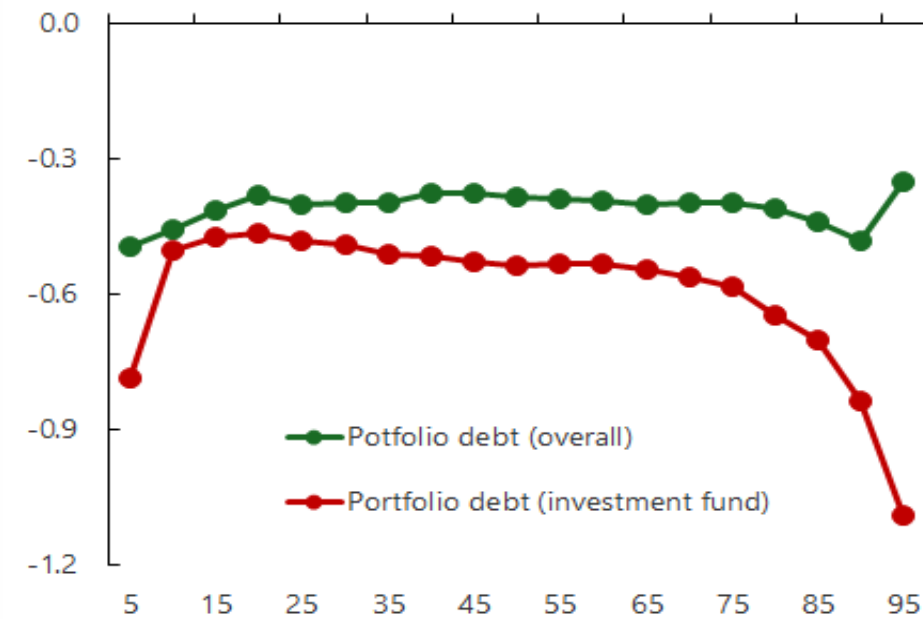
Sensitivity of Portfolio Liability Flows to Emerging Markets Following an Increase in the VIX, at Different Levels of the VIX, Post-2009Q2



Sources: Bank for International Settlements; IMF, Balance of Payments Statistics; IMF, World Economic Outlook database; and IMF staff calculations. Notes: Solid markers indicate statistical significance at 10 percent or lower, and hollow markers indicate that the estimated effect is not statistically significant.

Investment fund flows are most sensitive to global risk factors when flows-to-GDP is at tails

Effect of a one-standard-deviation increase in the VIX on portfolio debt liability flows, at different percentiles of the flows, Post-2009Q2



Sources: Emerging Portfolio Fund Research; IMF, Balance of Payments Statistics; IMF, World Economic Outlook database; and IMF staff calculations. Notes: Solid markers indicate statistical significance at 10 percent or lower, and hollow markers indicate that the estimated effect is not statistically significant.

[back](#)