



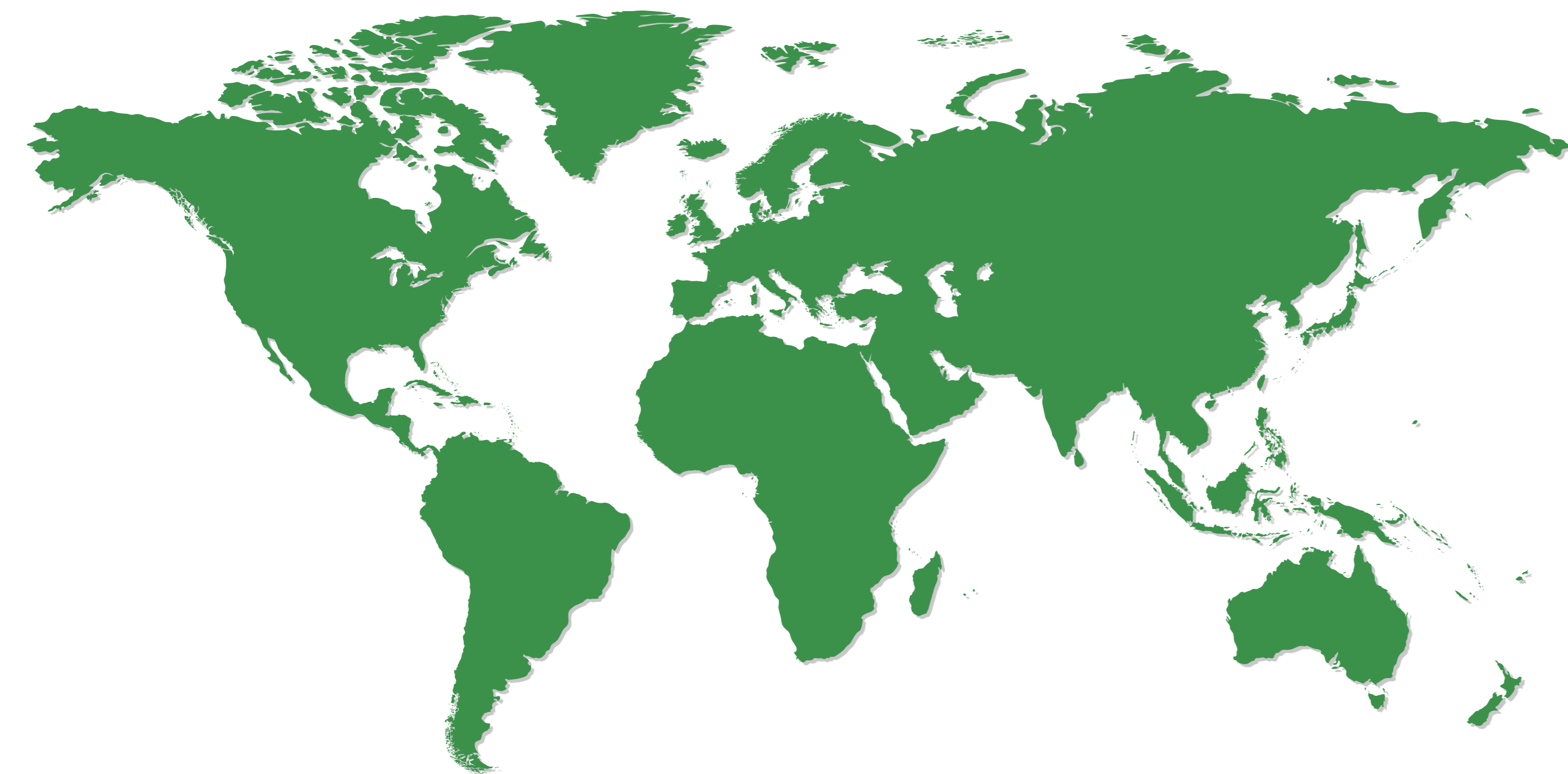
International Monetary Fund

Global Financial Stability Outlook

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Financial Stability Risks Could Rise Sharply

Since the April 2018 GFSR

- Global financial conditions have tightened somewhat, but remain broadly accommodative
- Near-term risks have increased modestly, while medium-term risks remain elevated

Risks Could Rise Sharply

Possible triggers:

- Broader EM pressures
- Escalation of trade tensions
- Political and policy uncertainty
- Faster monetary policy normalization

Vulnerabilities Continue to Build

- High nonfinancial leverage
- Stretched asset valuations
- EM external borrowing
- Bank exposures & FX funding

MARKET DEVELOPMENTS

Financial Conditions Have Diverged Across AEs and EMs

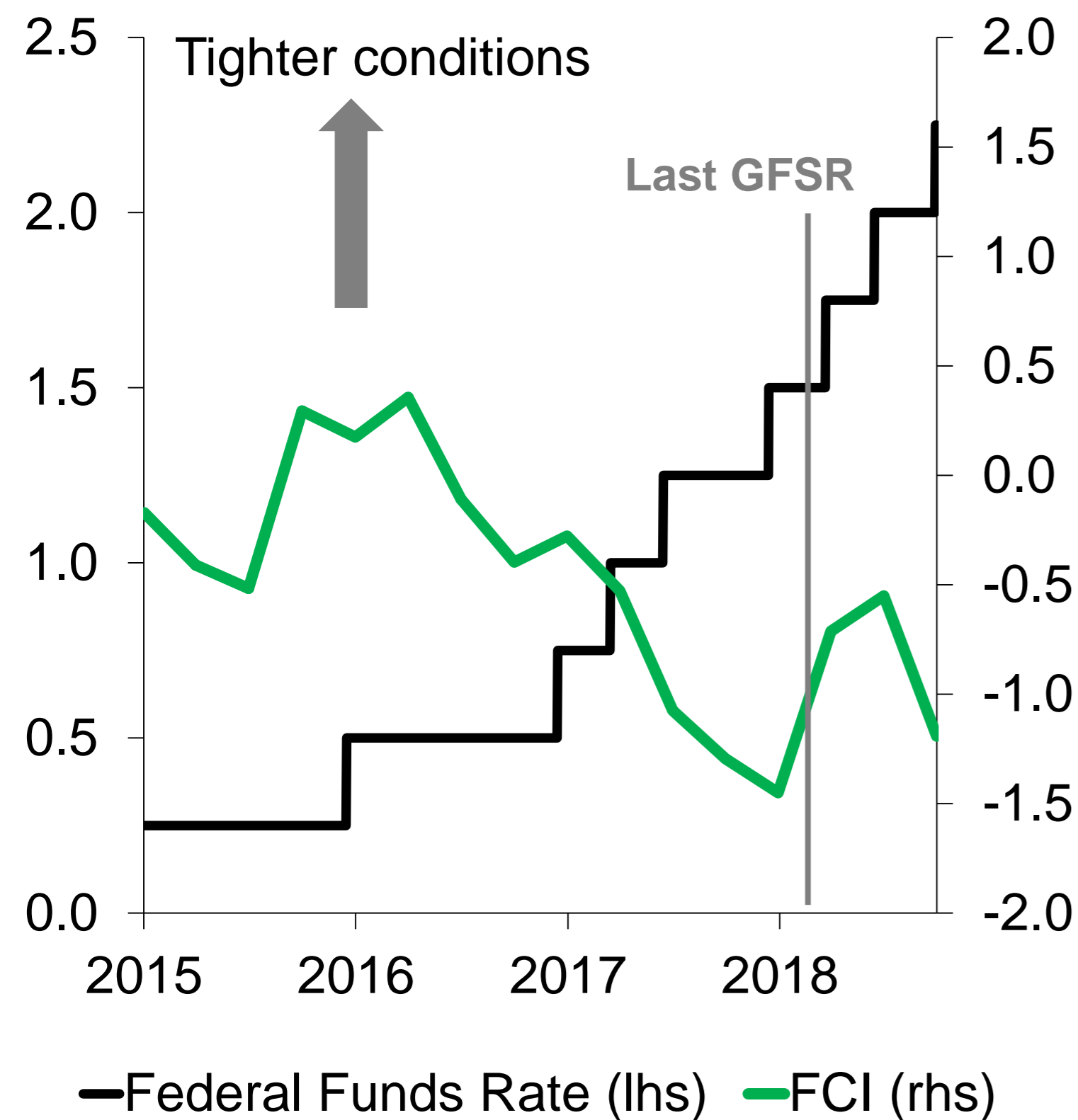
Financial conditions in the US eased, despite policy rate hikes...

...offsetting tighter financial conditions in EMs, and...

...supporting near-term growth, while keeping medium-term risks elevated

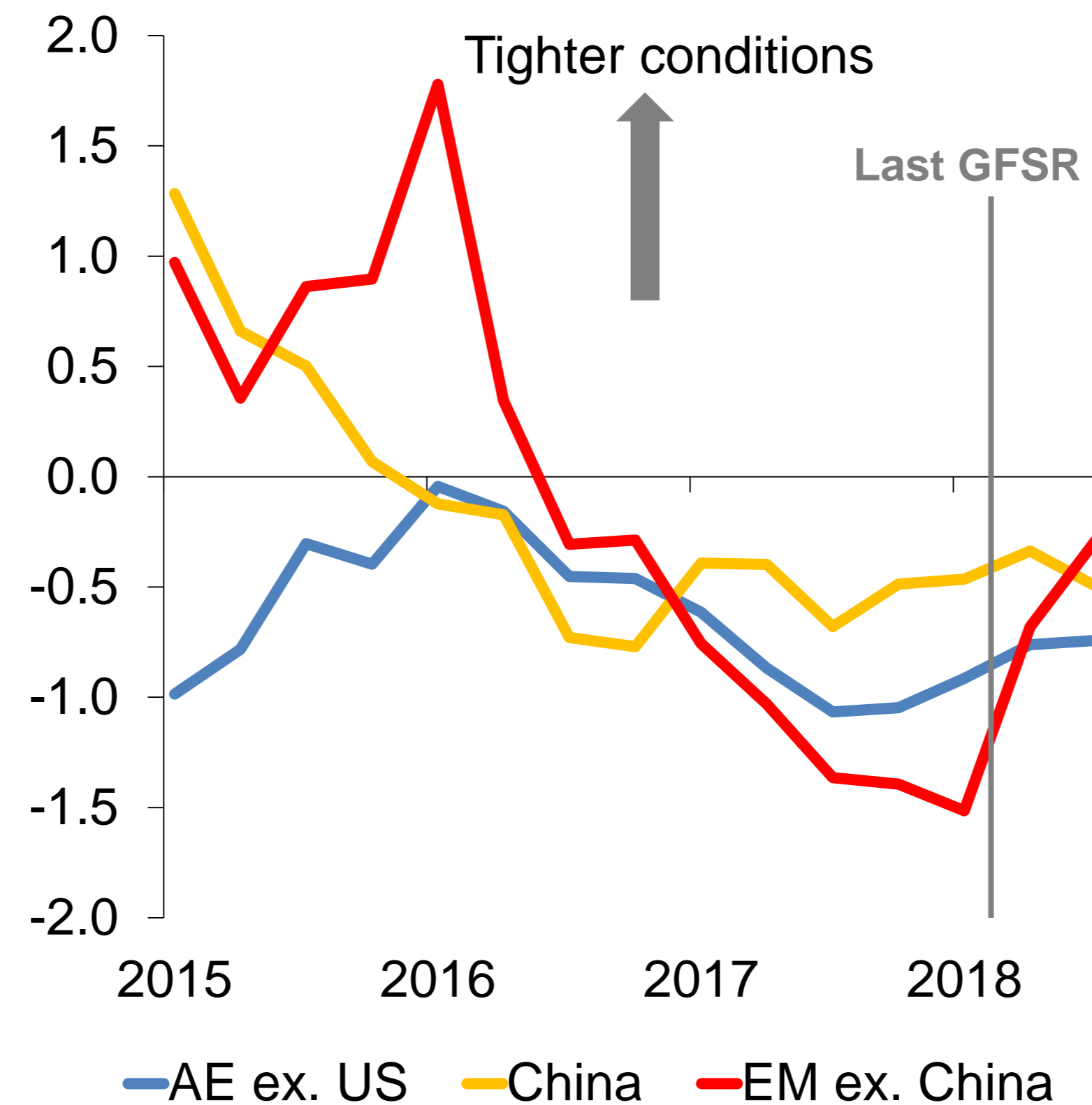
US Financial Conditions Index and Federal Funds Rate

(z-scores over 2010-18 and percent)



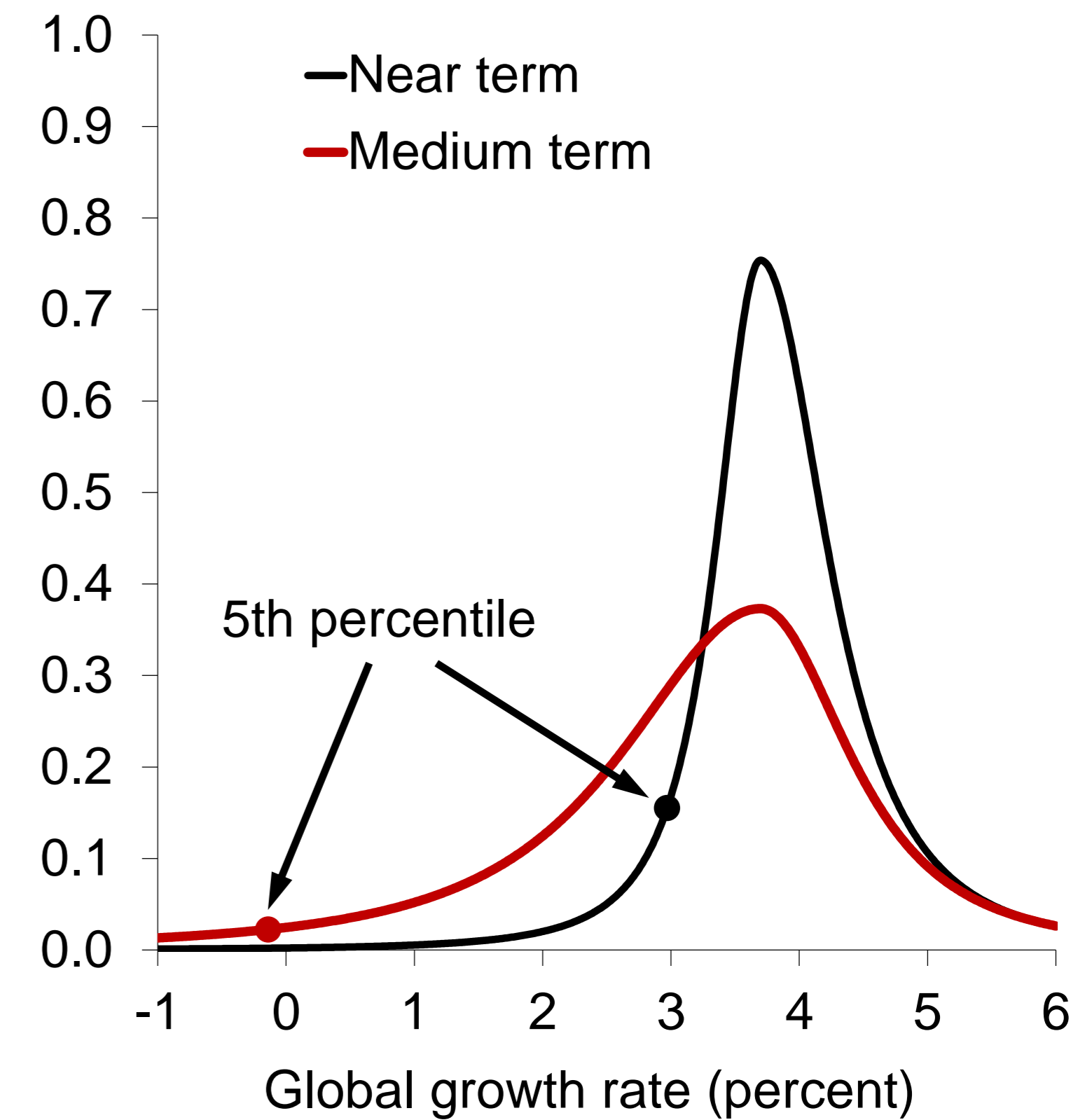
Financial Conditions Indices of Other Advanced and Emerging Market Economies

(z-scores over 2010-18)



Global Growth Forecast Densities

(Probability density, 2018:Q3)



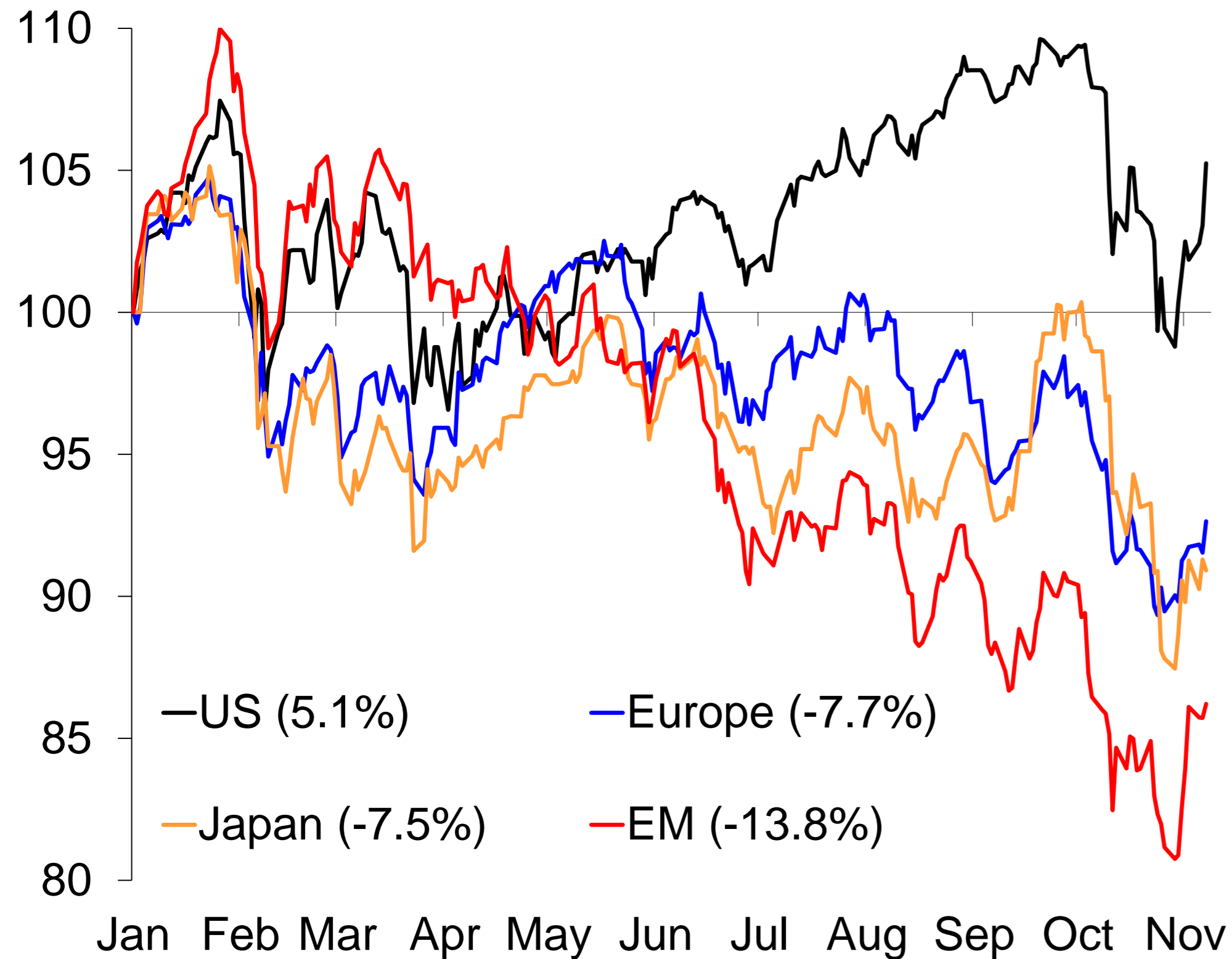
Recent Market Movements Have Contributed to Tighter Conditions

The sharp selloff in US stocks triggered a global stock market correction...

... leading to a significant fall in equity valuations

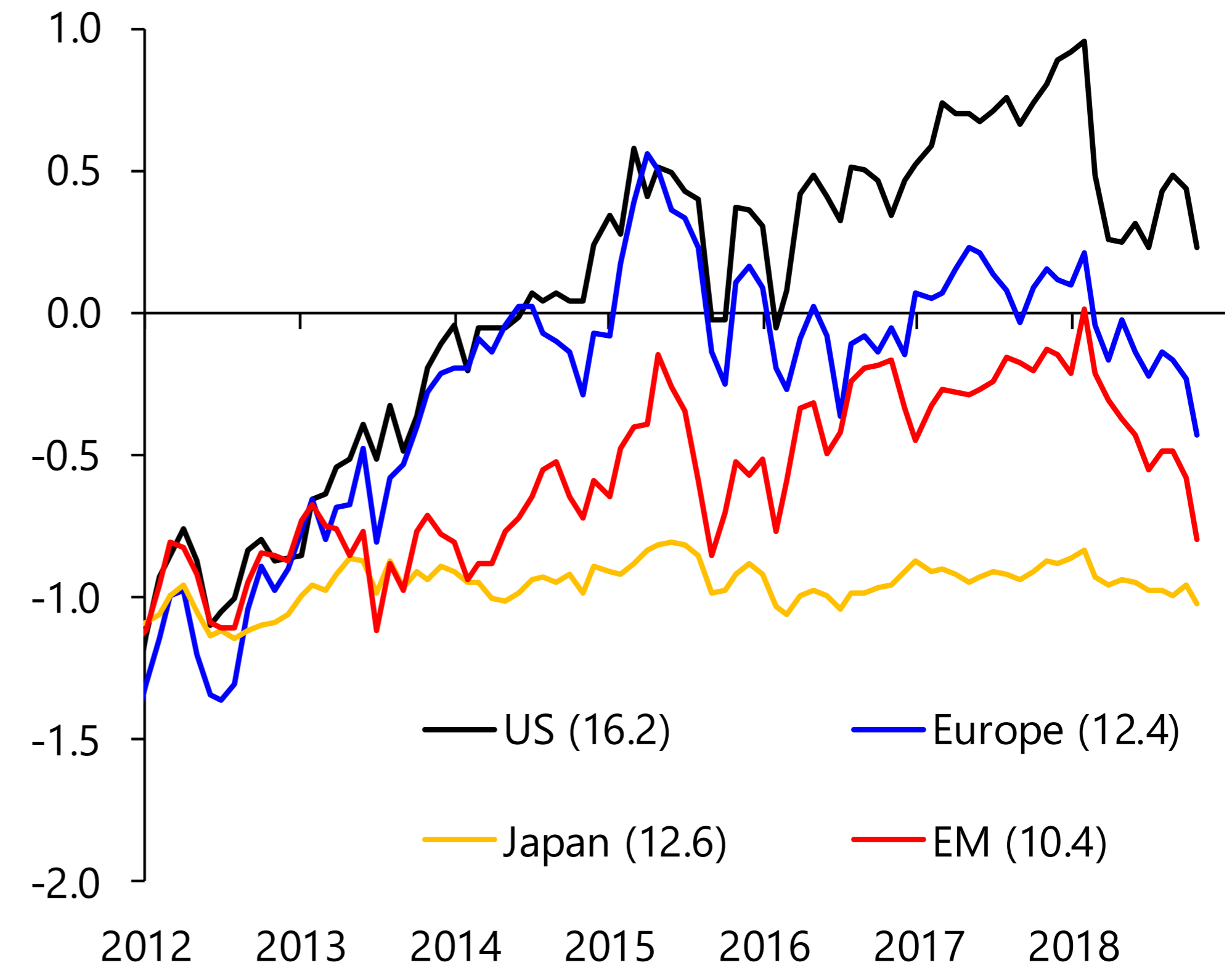
Major Stock Index Performance

(index to Jan 1, 2018; YTD change in parentheses)



12-month Forward Price-to-Earnings Ratio

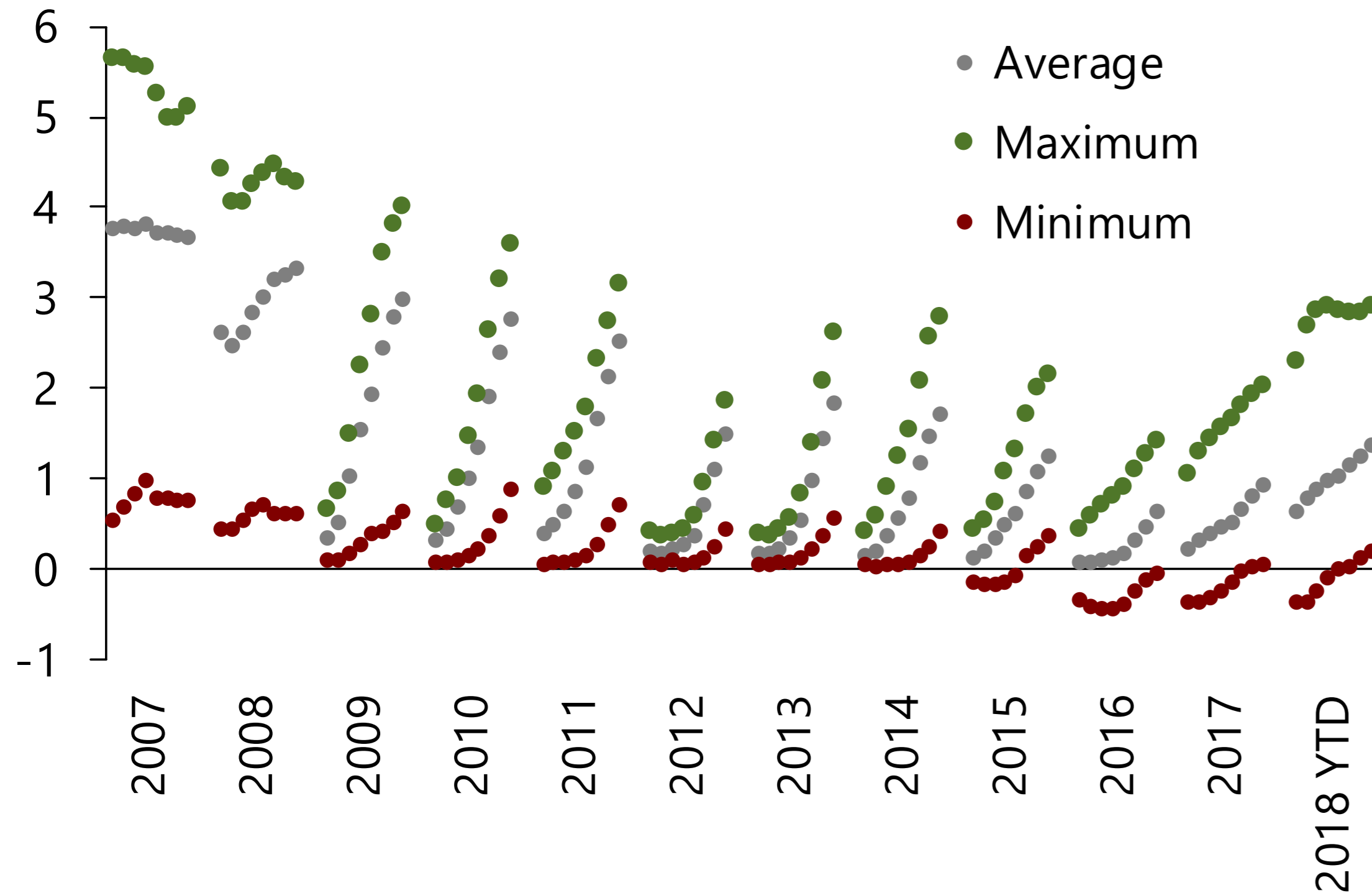
(z-score since 1987; current value in parentheses)



Markets Are Pricing in a Benign Macroeconomic Outlook

Policy rate expectations point to gradual rate hikes...

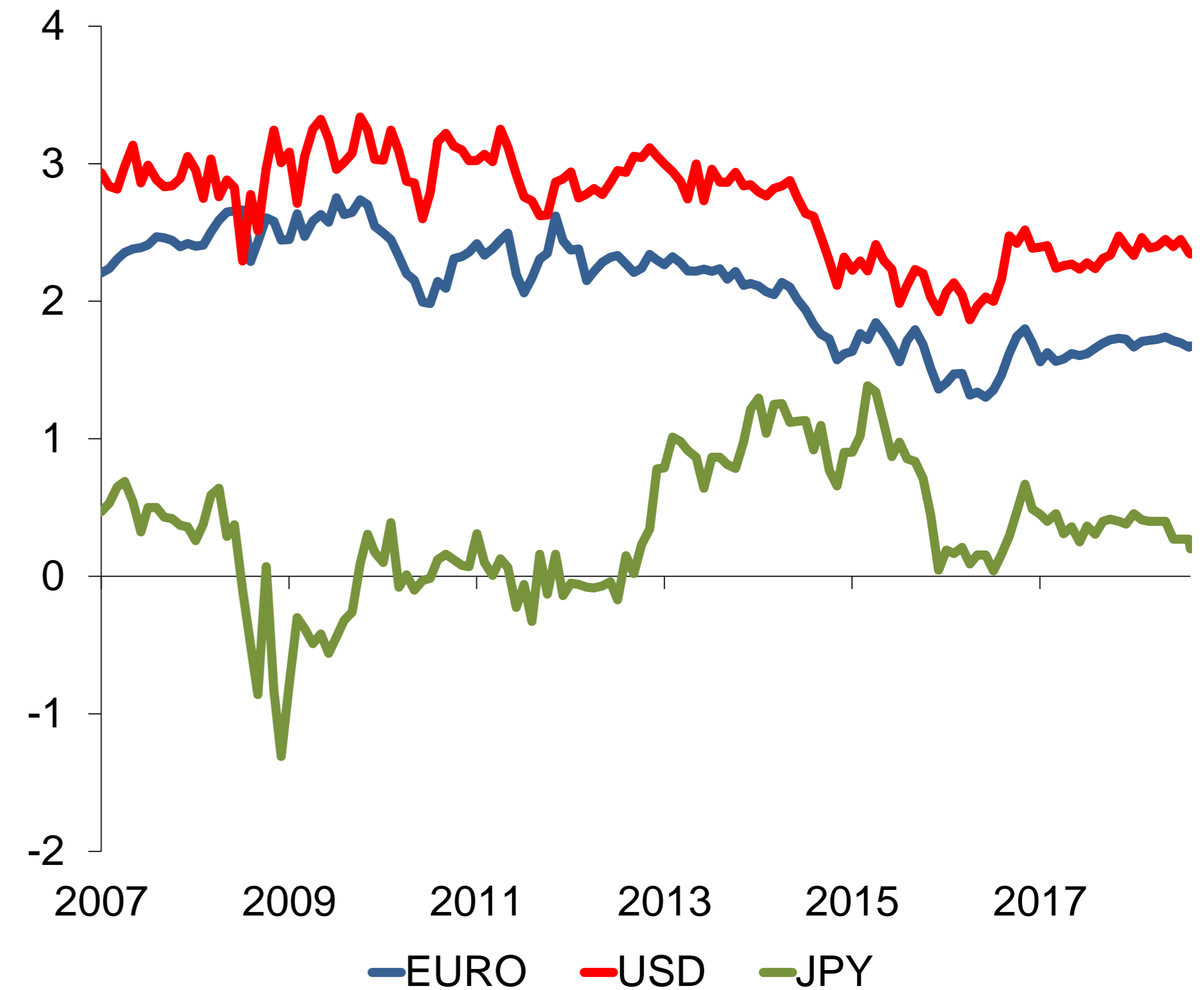
Overnight Indexed Swap (OIS) Forward Rate Curves for Advanced Economies
(Percent)



Note: Annual average three-month overnight indexed swap (OIS) rates on forward contracts for tenors from six months to five years. The OIS forward curves are constructed from the USD, EUR, JPY, and GBP, and the average, maximum, and minimum are computed for each tenor across the four jurisdictions.

... despite relatively benign expectations of future inflation

Breakeven Swap Rates, 5Y5Y Forward
(Percent)

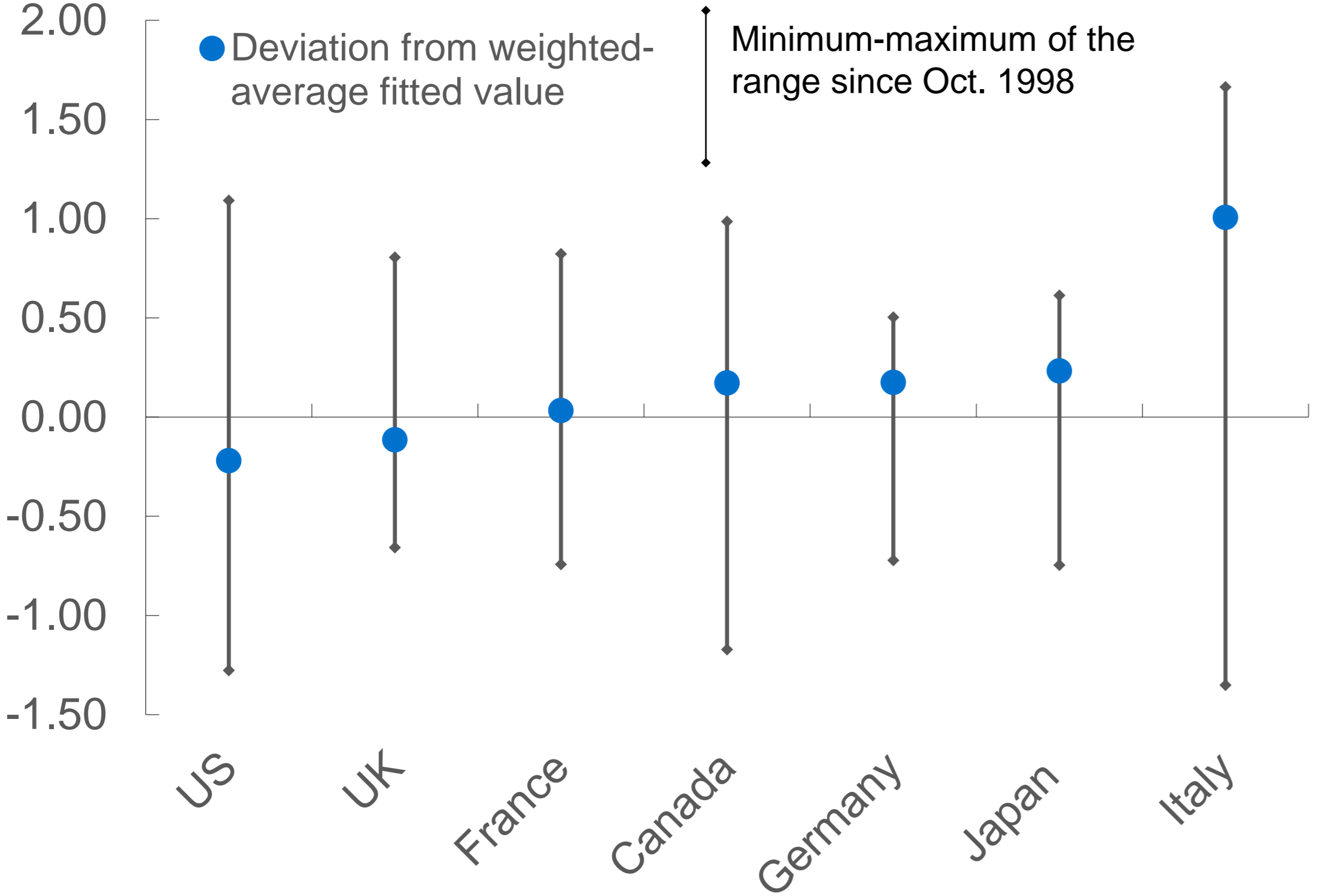


In Certain Asset Classes, Valuations Still Increasingly Stretched

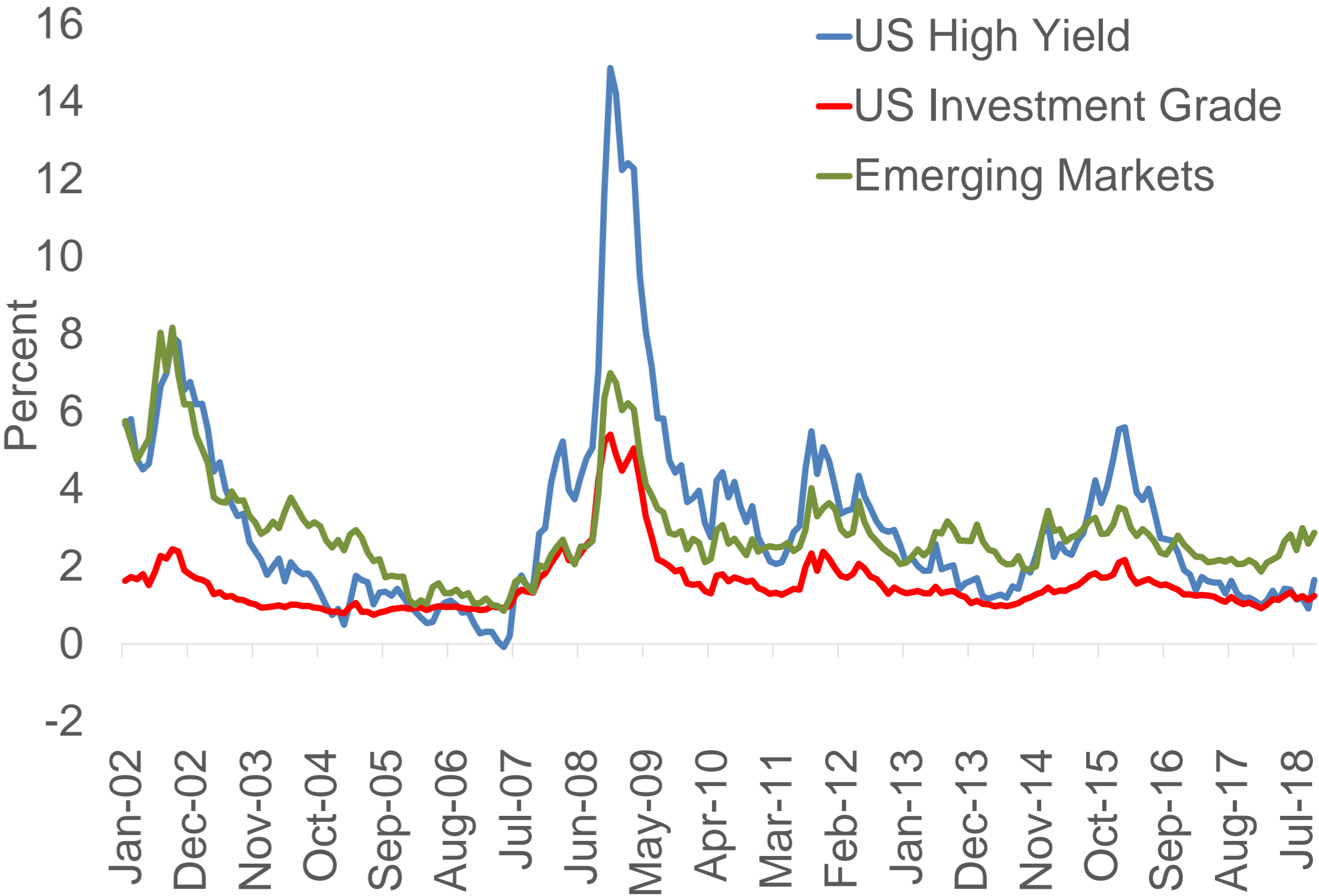
Term premiums are low, but mostly fairly priced based on fundamentals...

...but corporate spreads remain very low, given creditworthiness of borrowers

Deviation from Fitted 10-Year Premium
(Percentage points)



Residual Market Risk Premiums for U.S. and Emerging Market Dollar-Denominated Corporate Bonds
(Difference between the corporate spread and the default risk component, percent)



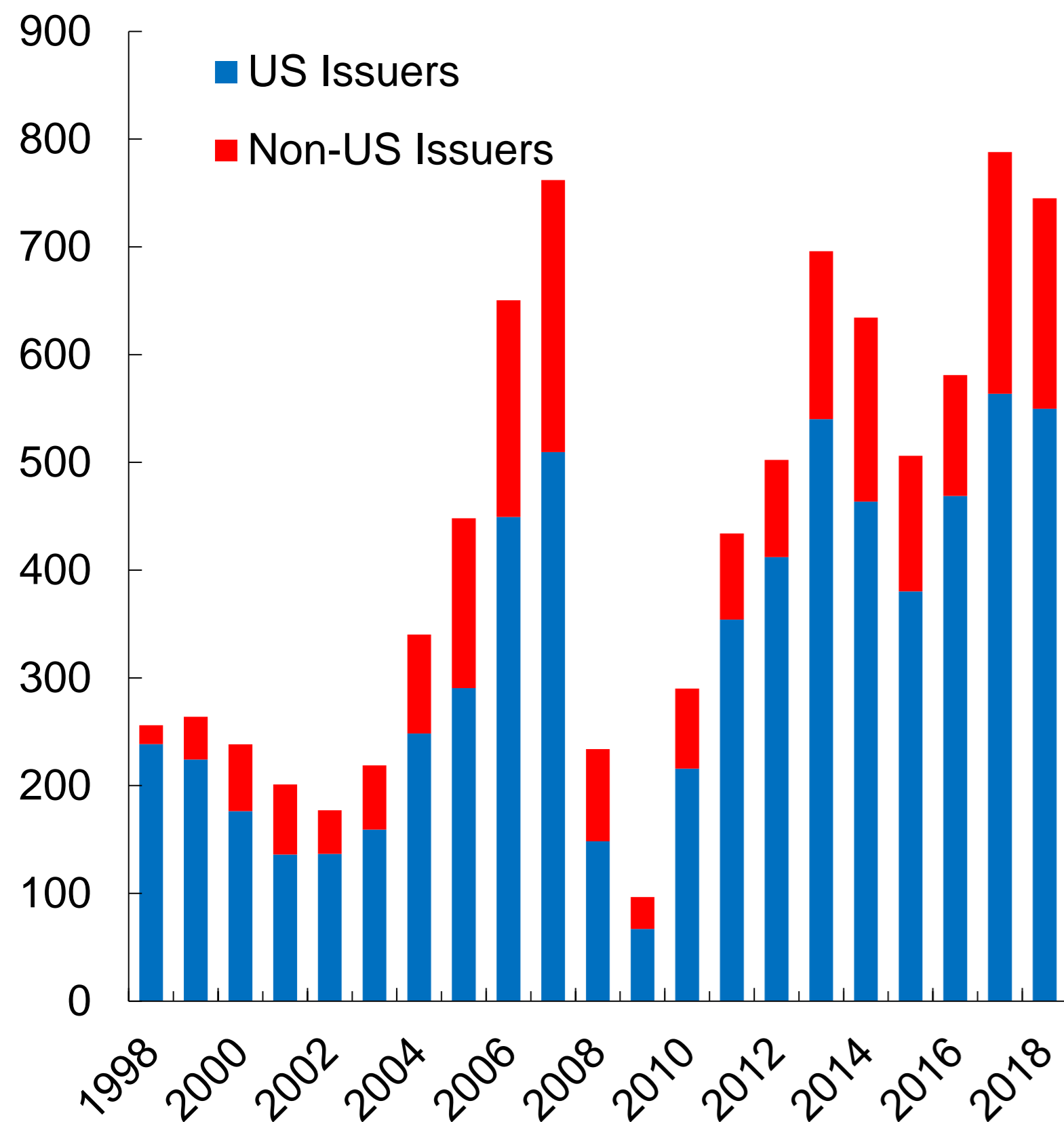
Intensifying Risks in Leveraged Lending

Global new issuance of leveraged loans has been growing...

... as has been the issuance of such loans by highly indebted companies...

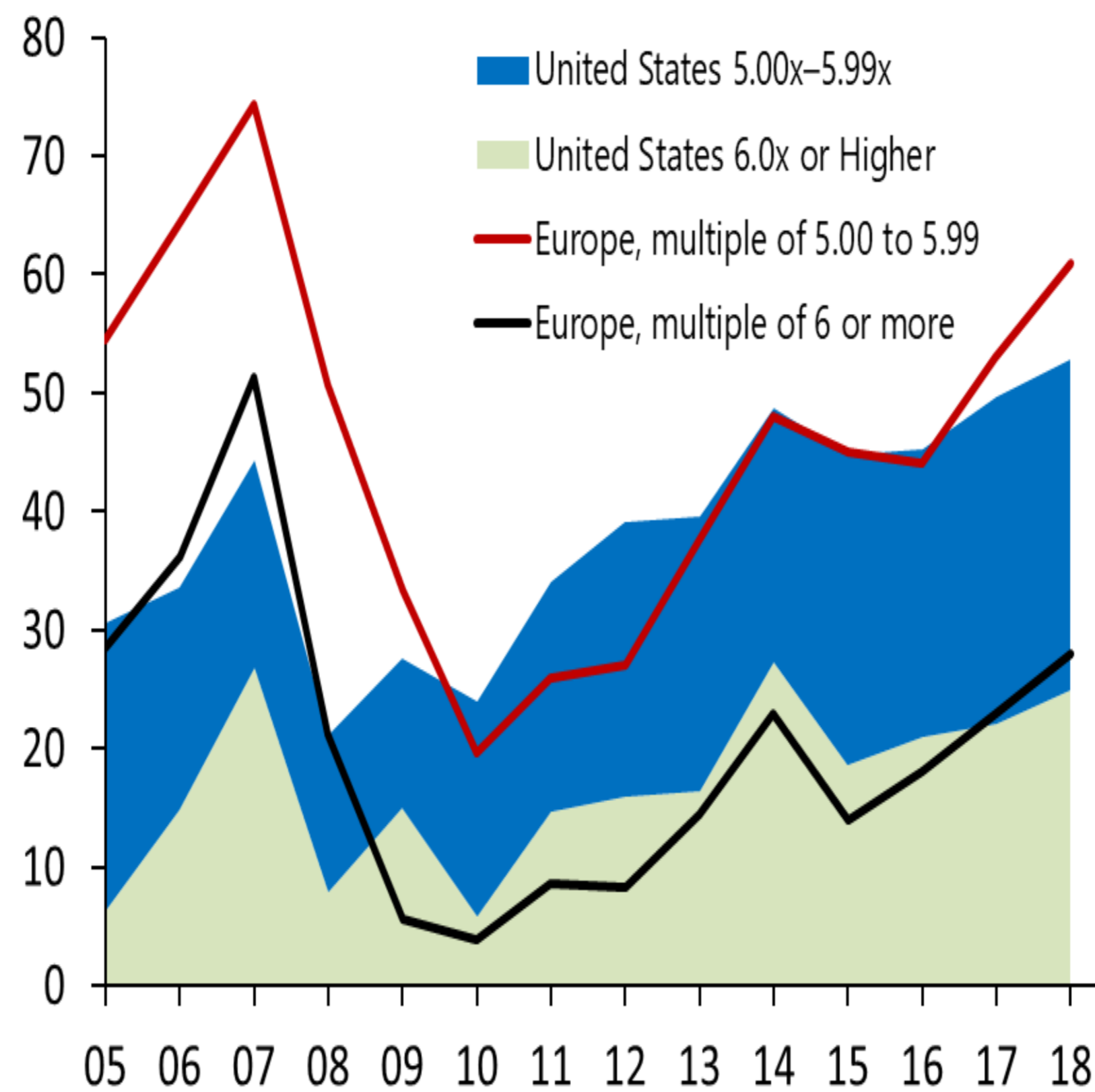
... with fewer investor protections and lower overall quality

New Issuances of Leverage Loans
(Billion of US Dollars)



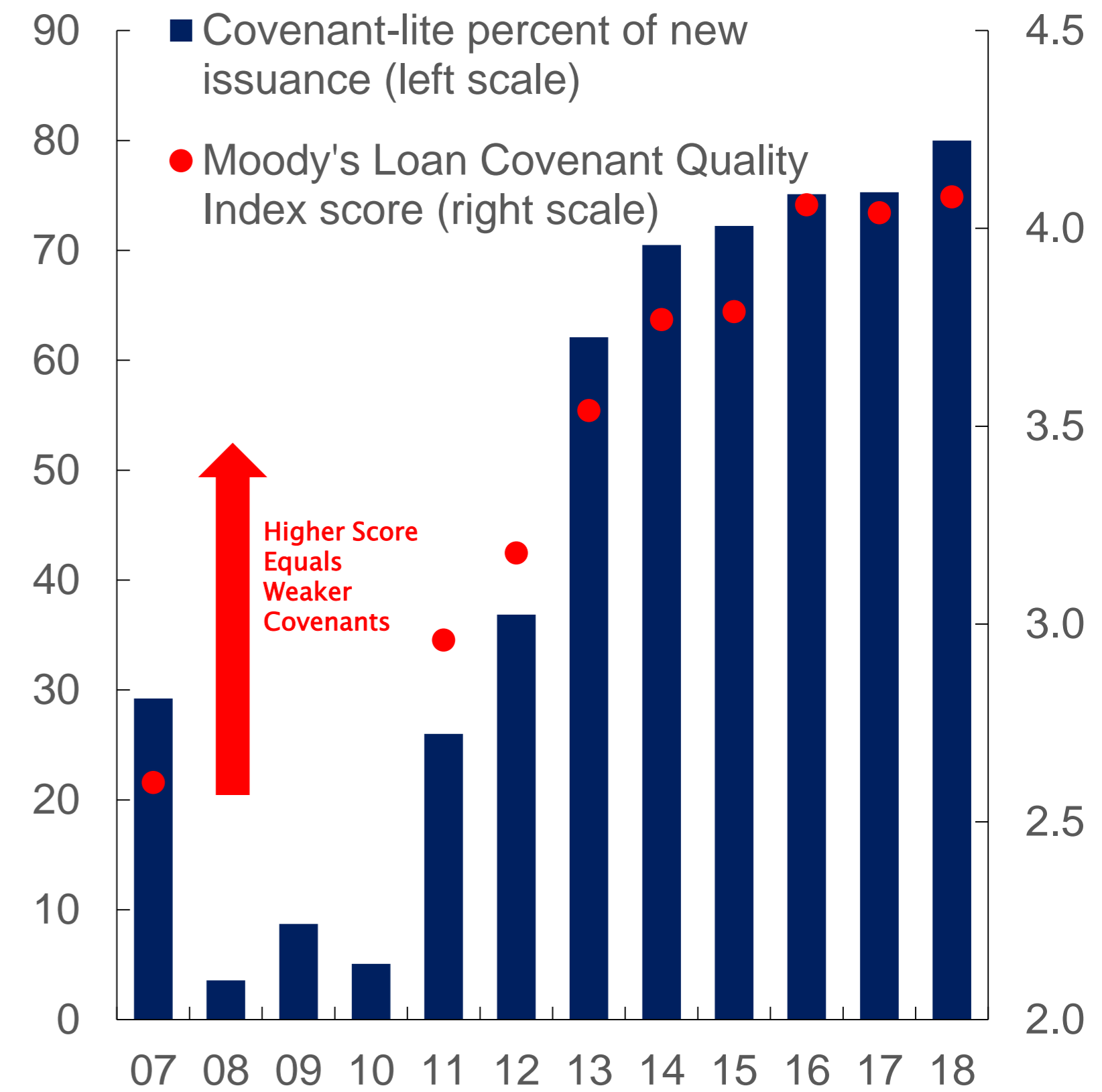
Note: 2018 data is through Q3 and annualized to estimate full-year 2018 issuance.

Leverage Multiple



Note: Leverage multiple is defined as the ratio of total debt-to-earnings before interest, taxes, depreciation and amortization after issuance of the loan.

Covenant Quality



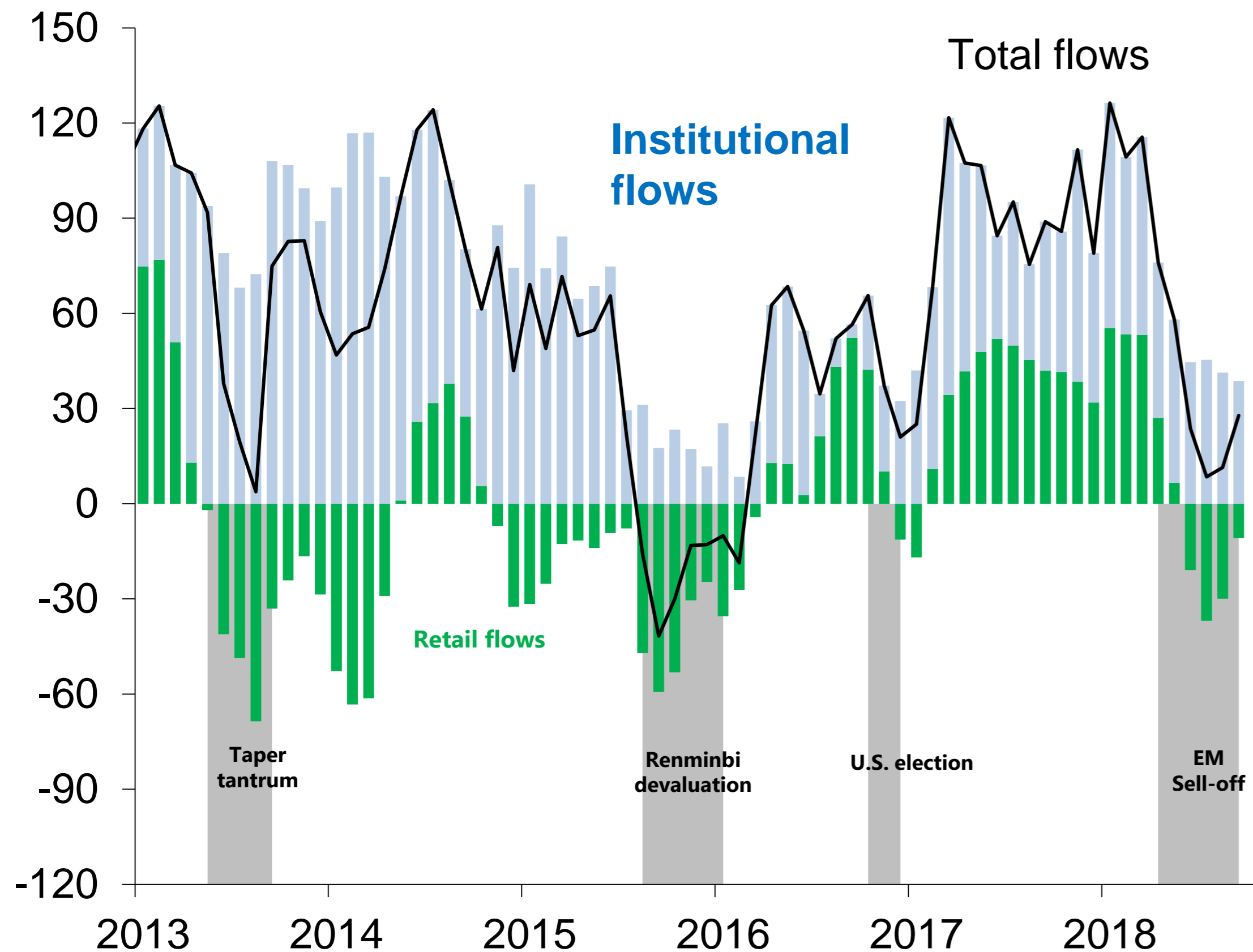
Note: Moody's Loan Covenant Quality Index score is a year average. Data unavailable from 2008 to 2010. 2018 data is through Q3.

Portfolio Flows to EMs Have Been Under Pressure

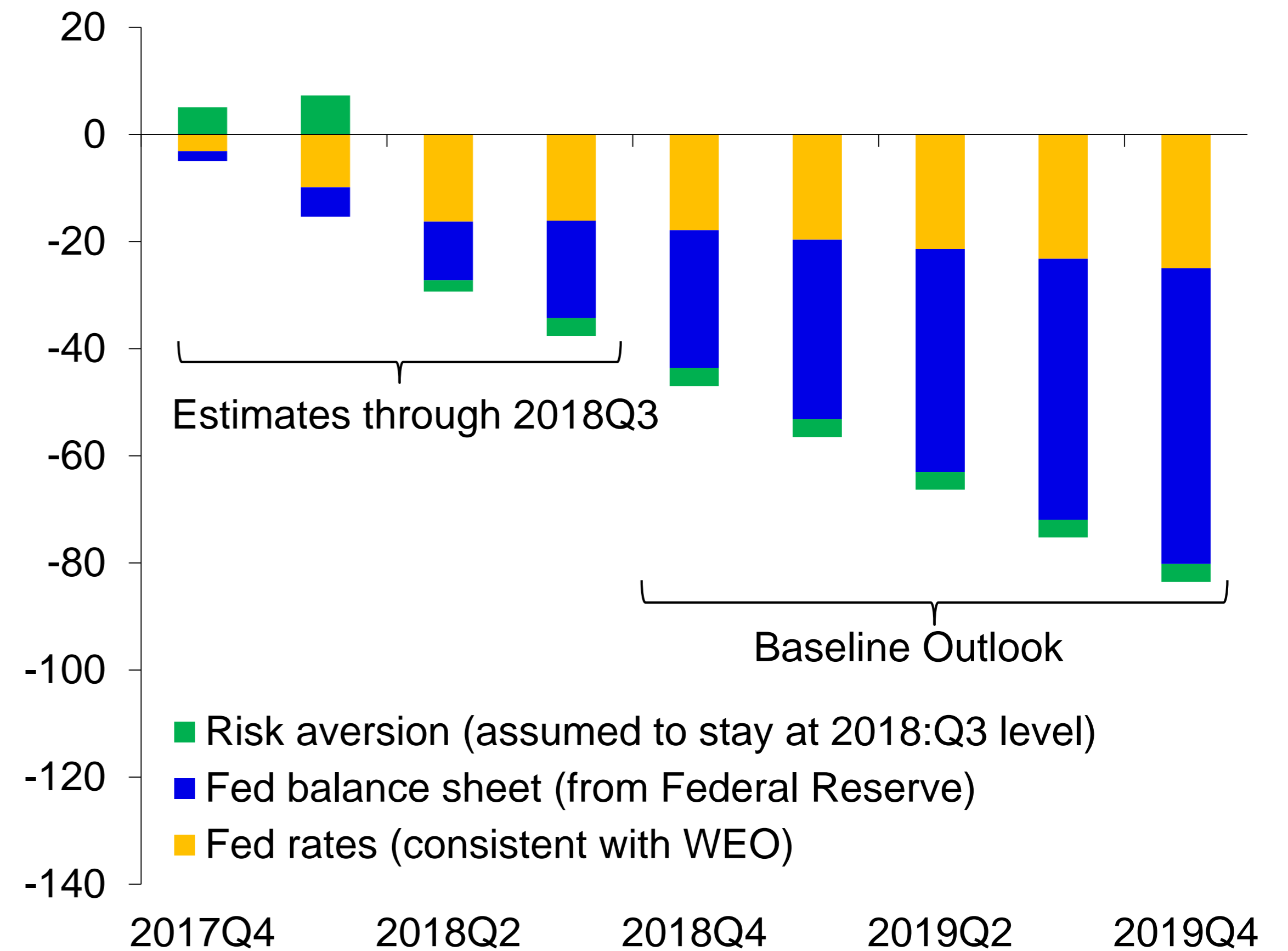
EM portfolio flows have declined, driven by a reversal in retail fund flows

Some moderation in EM portfolio flows is expected due to ongoing US monetary policy normalization

EM Portfolio Flows by Investor Type
(US\$ bn, 3-month rolling sum)



Baseline: Estimated Cumulative Impact of External Factors on Portfolio Flows to EMs

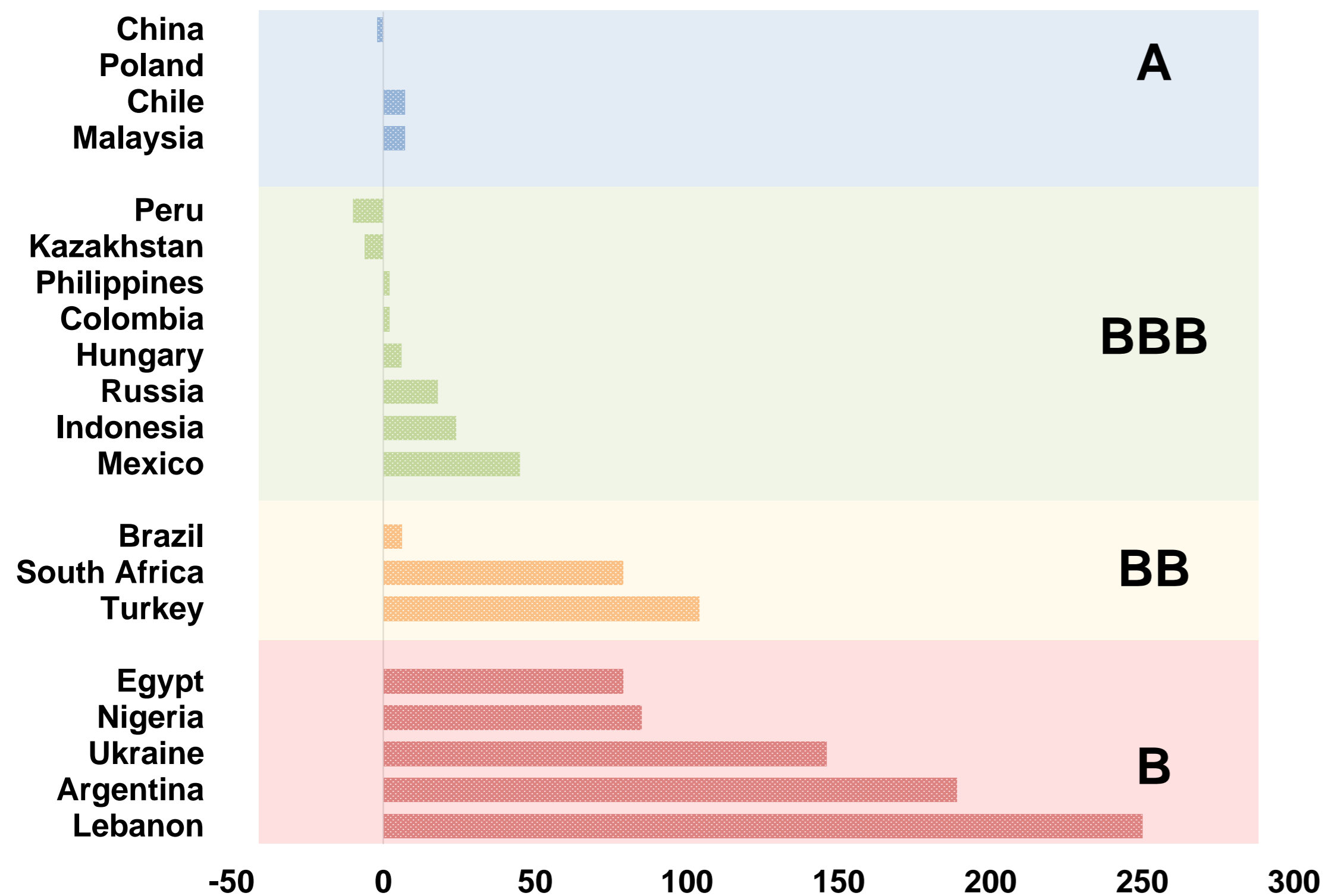


Investors Have So Far Differentiated Among EMs

Lower-rated EMs have seen larger widening in external debt spreads...

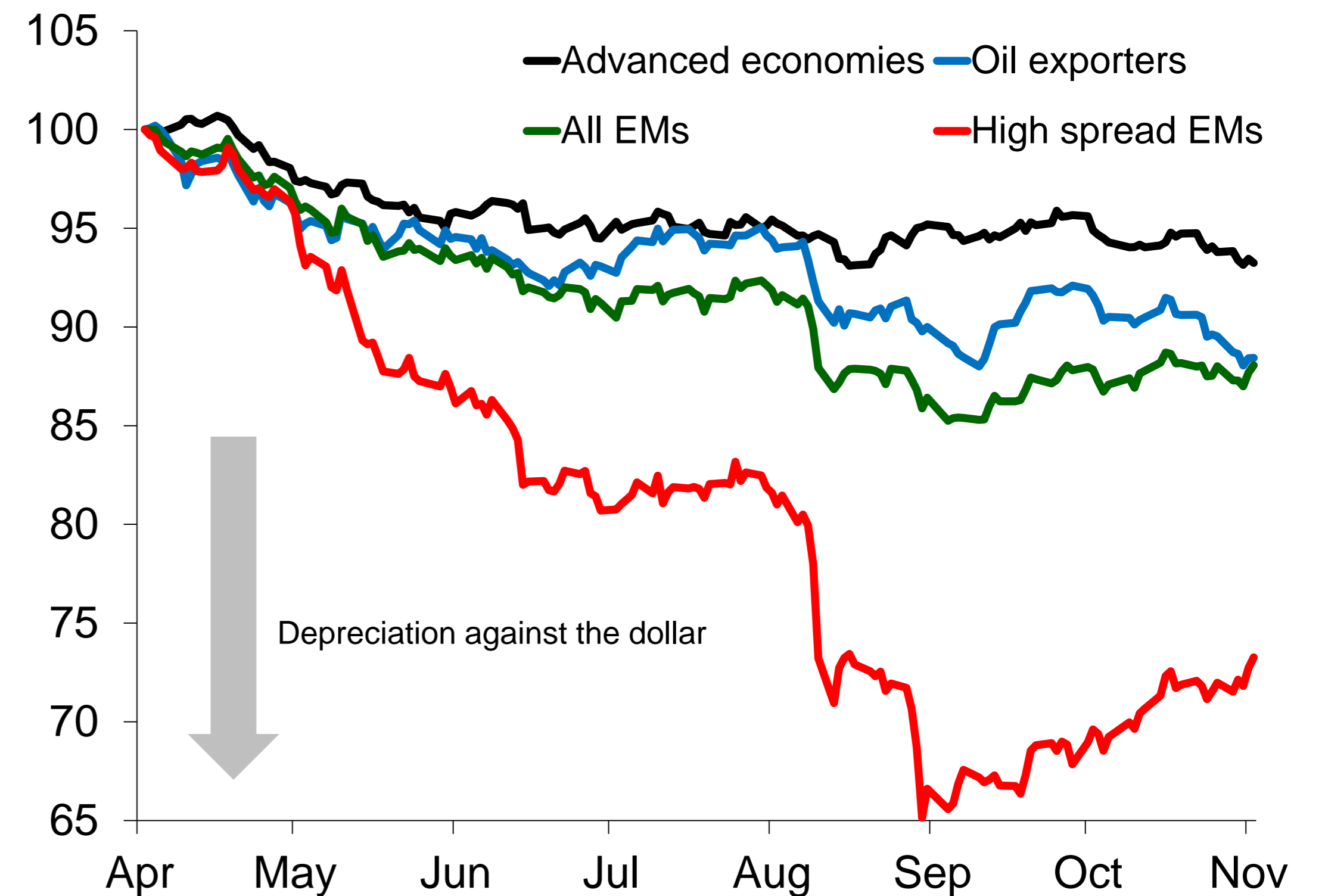
... but outsized FX currency moves have been limited to a few countries

USD Government Bond Spreads
(changes since end-March; basis points)



Note: Letters refer to foreign currency long-term sovereign credit ratings, as assigned by at least two out of the three major credit rating agencies

EM and AE Currencies against the USD
(index, 3/30/18=100)



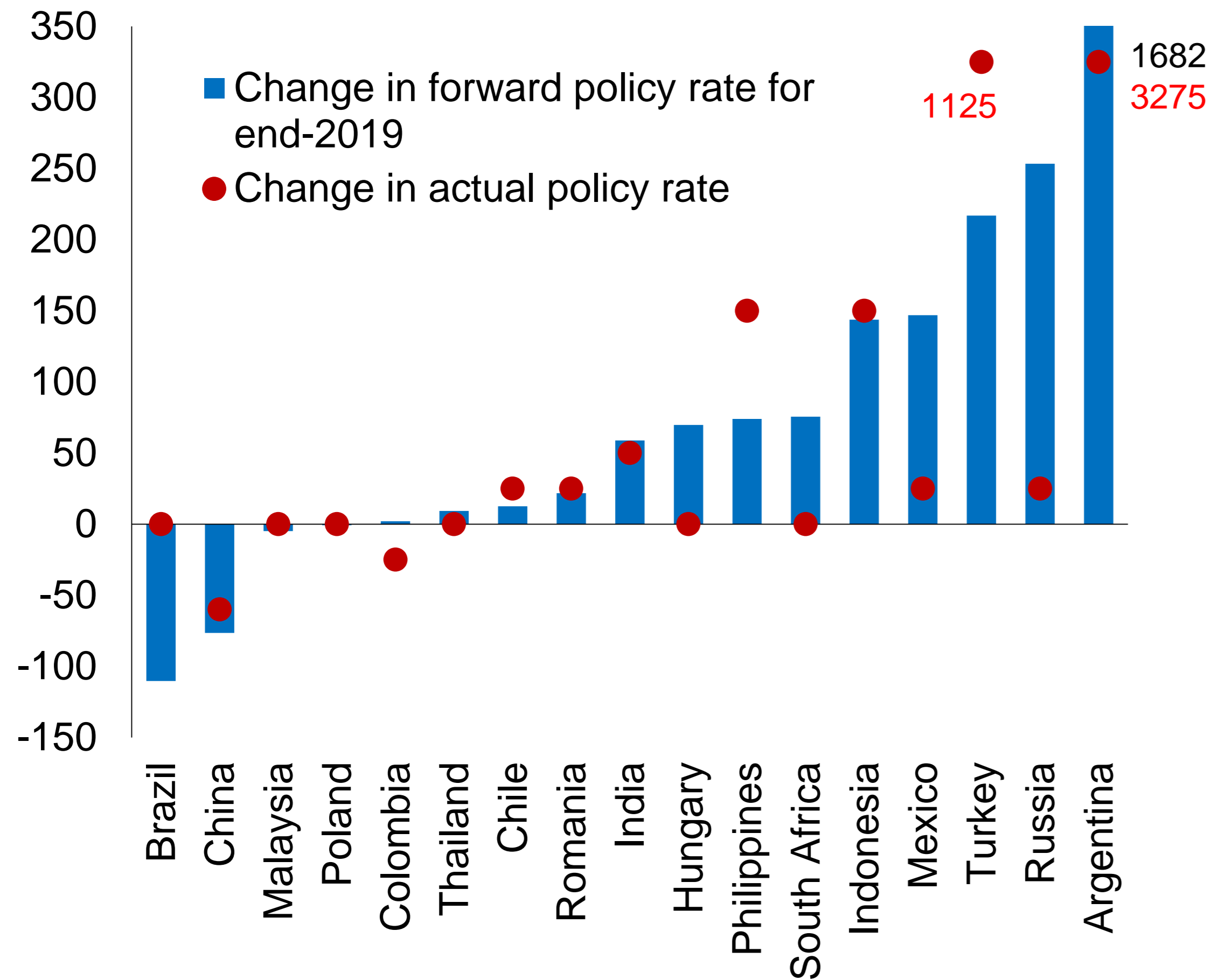
Note: "High spread EMs" include Argentina, Brazil, South Africa, and Turkey; "Oil exporters" include Colombia, Kazakhstan, Mexico, and Russia.

EM Policy Responses to Market Pressures Have Varied

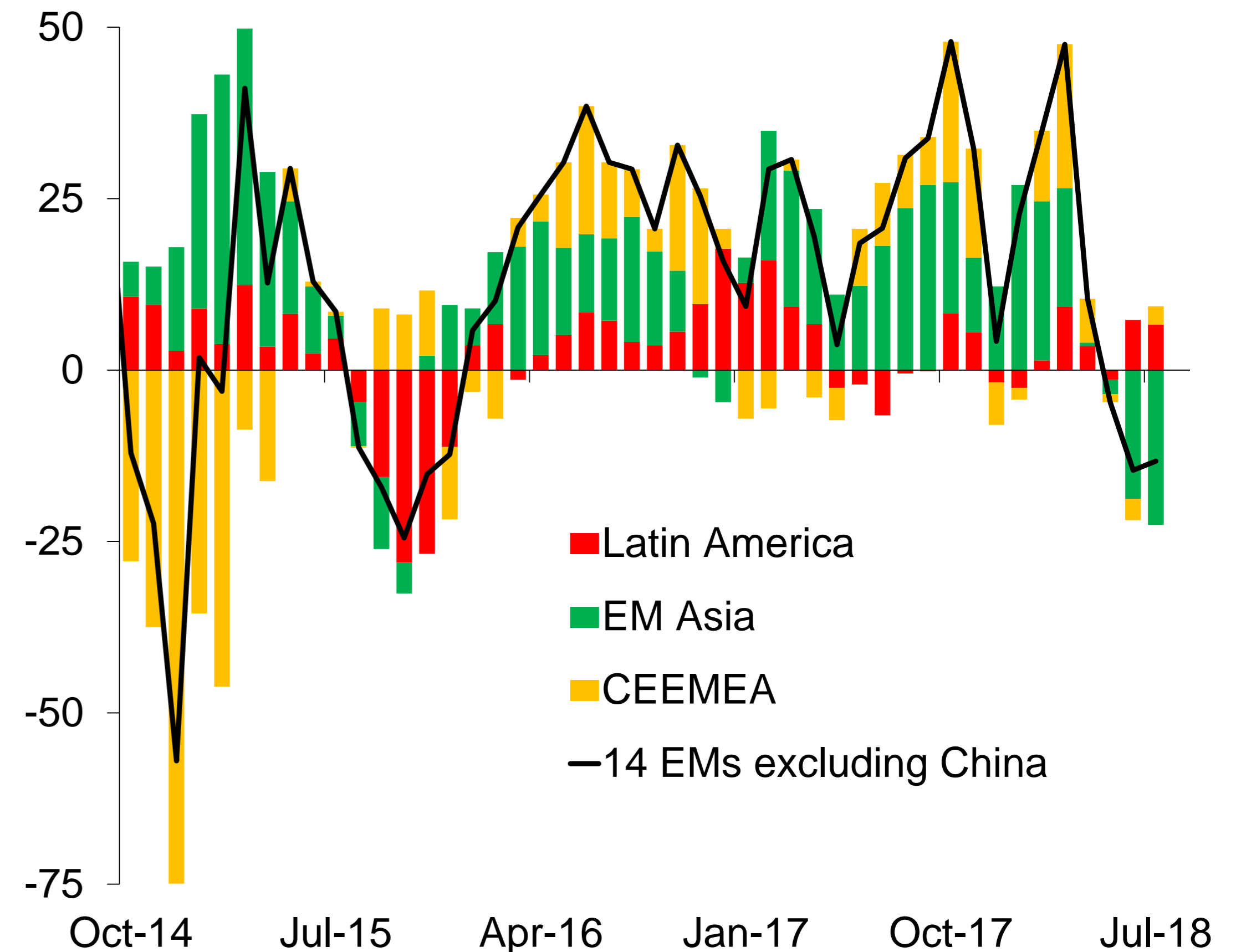
EM policy responses have included policy rate hikes...

...and foreign exchange market interventions

Changes in Actual and Expected Policy Rates
(changes from 3/30/18 to 11/07/18; basis points)



Reserves Operations
(US\$ bn)

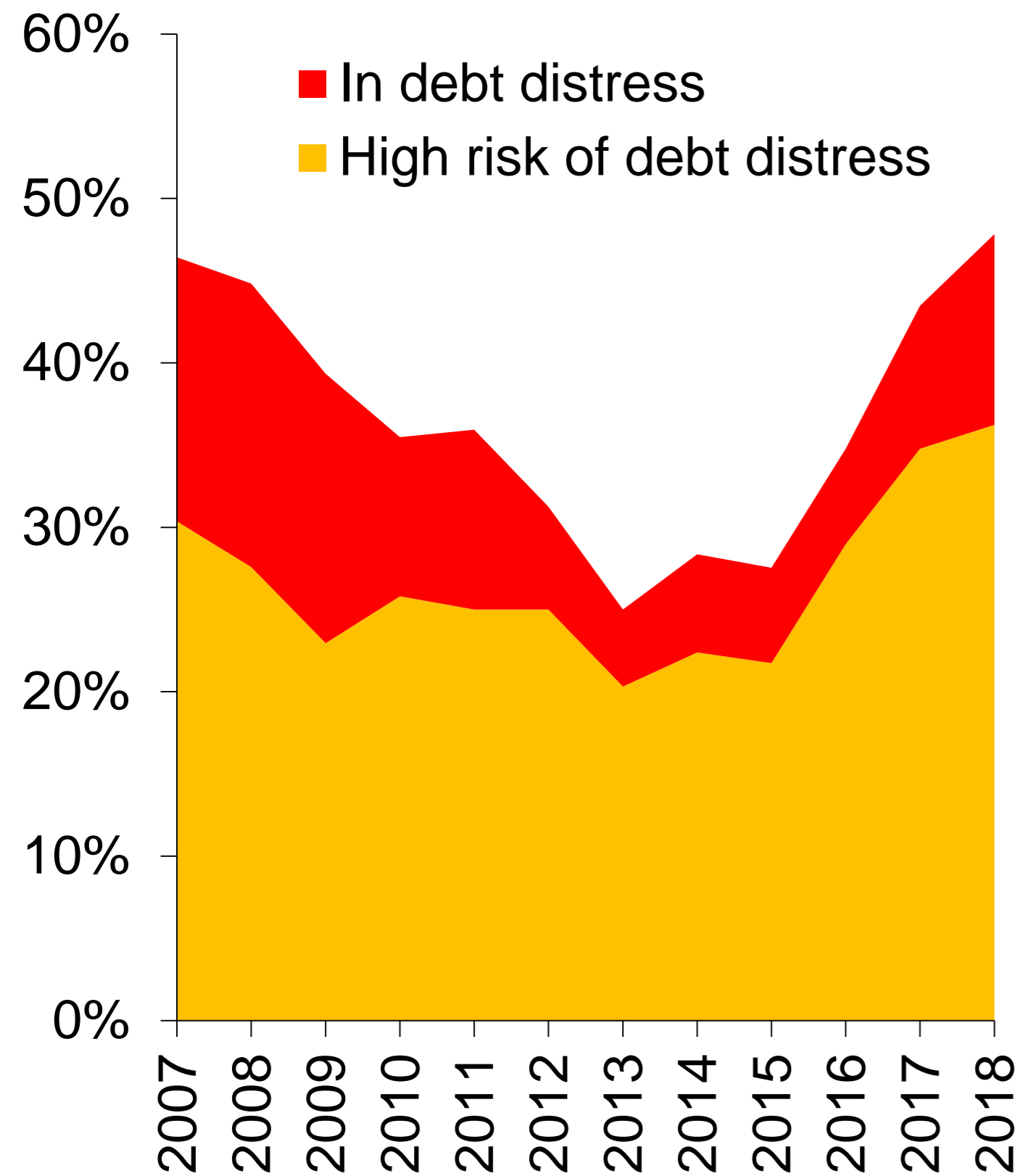


Note: In Argentina, the monetary regime was changed on October 1.

Frontier Markets Face Challenging External Borrowing Conditions

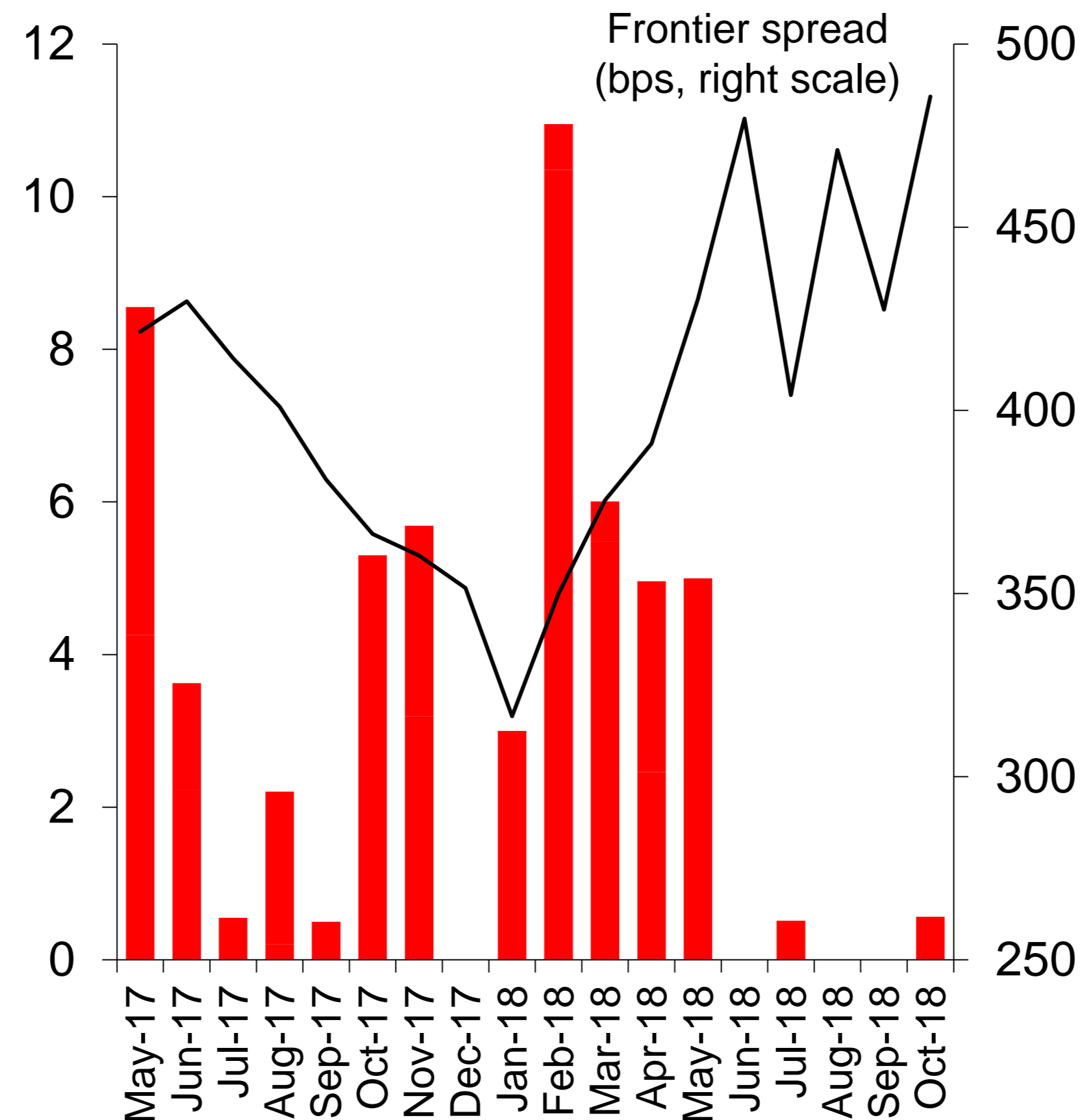
More low-income countries are at risk of distress

Low-income Countries Face Debt Challenges
(percent share of all LICs)



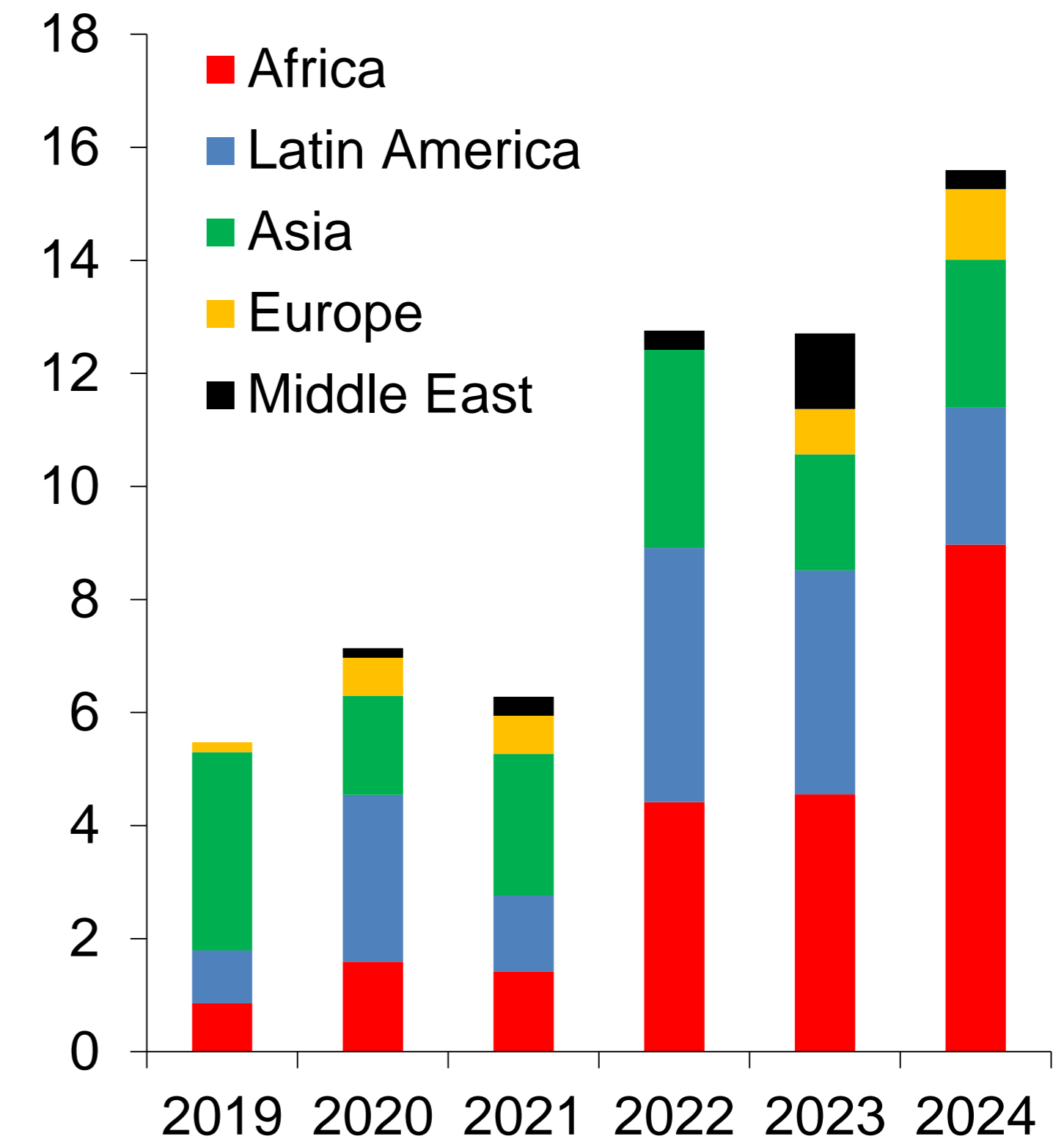
External borrowing conditions have deteriorated

Frontier Market International Bond Issuance and Spread
(US\$ bn and bps)



Some countries have large rollover needs over the medium term

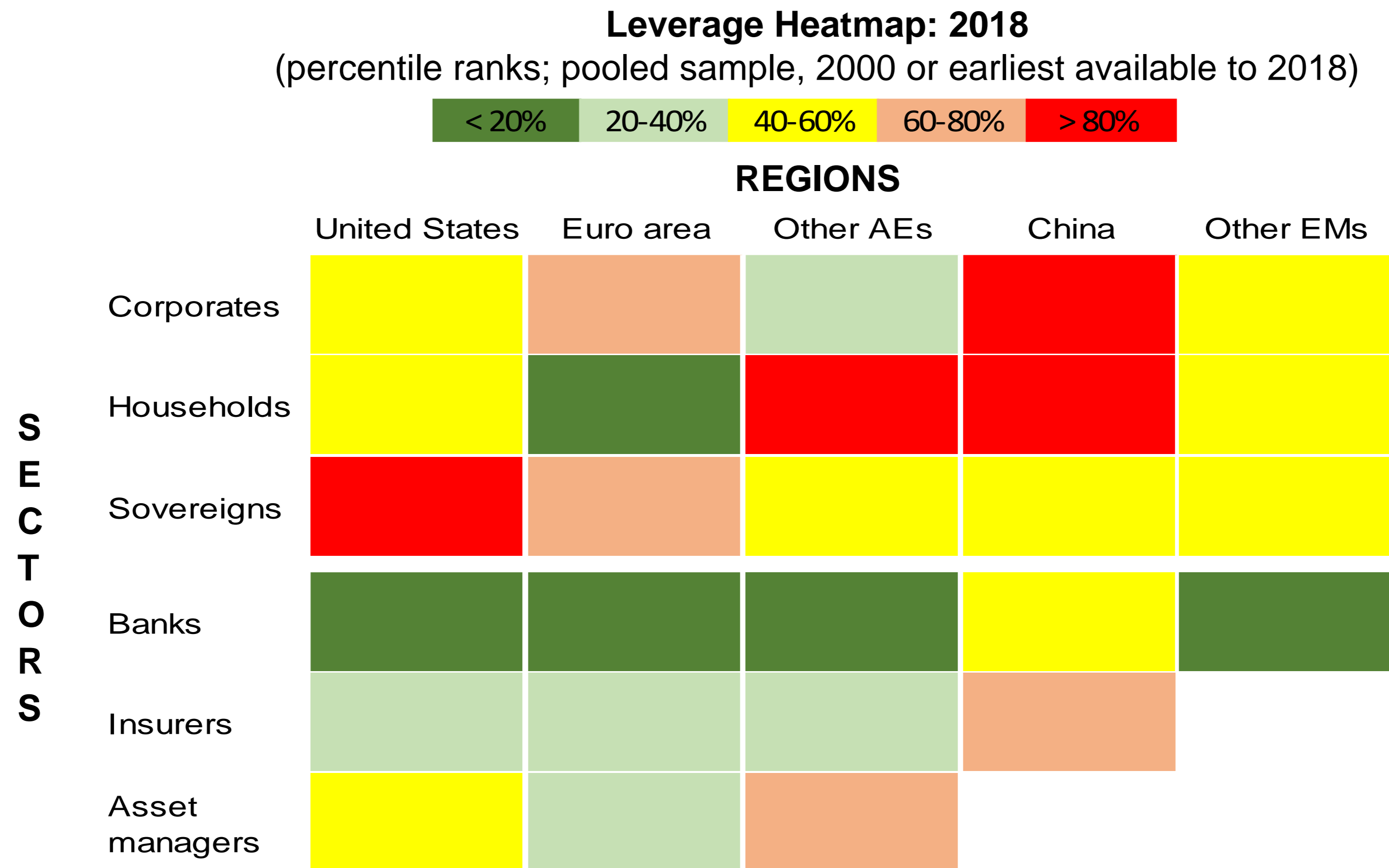
Frontier Issuers' International Bond Redemptions
(US\$ bn)



FINANCIAL VULNERABILITIES

Non-financial Sector Debt Vulnerabilities Continue to Rise

Non-financial sector leverage has increased since the global financial crisis and is high in some regions, while banking sector leverage has broadly improved

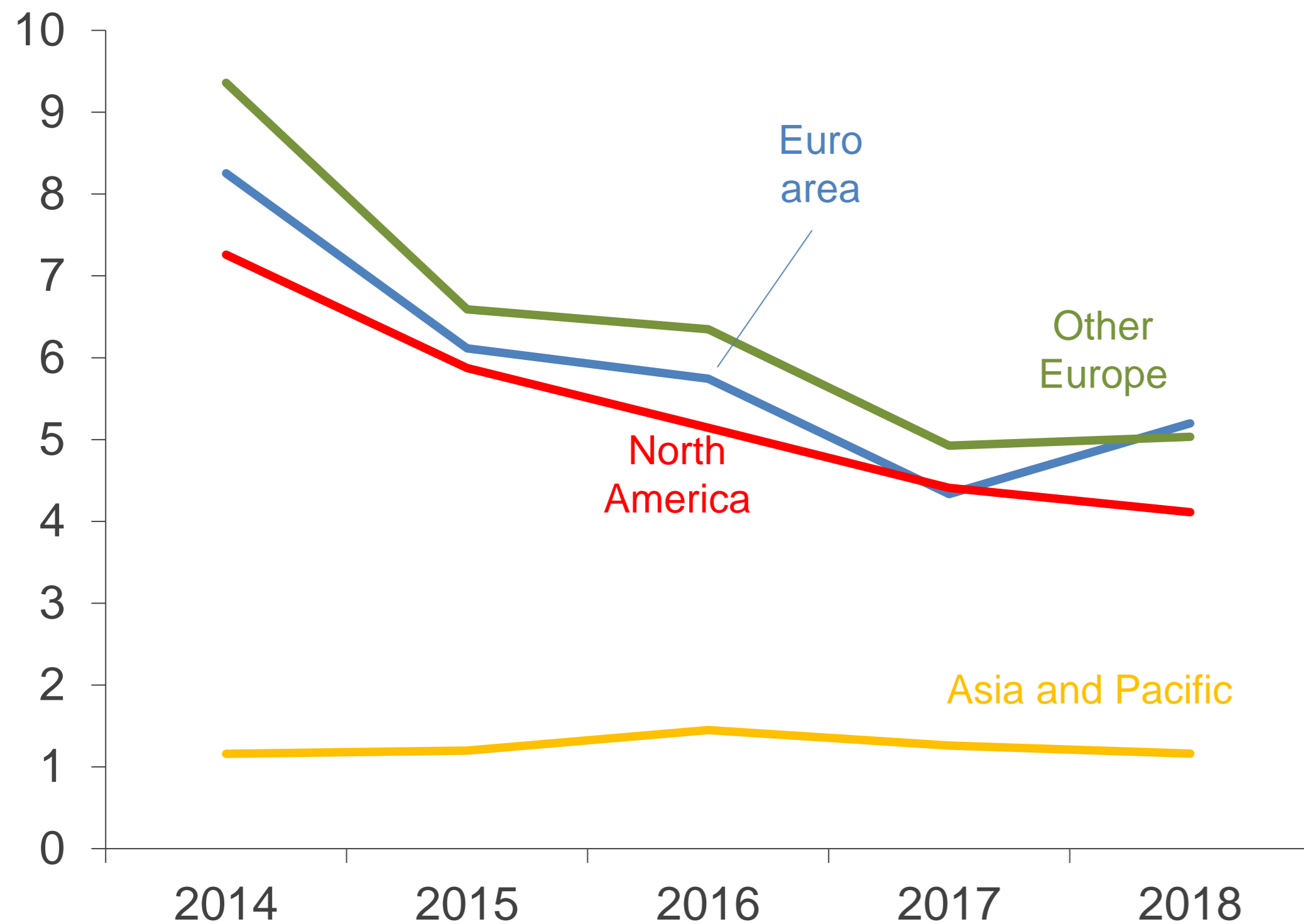


Note: the heatmap is based on the data for 29 jurisdictions with systemically important financial sectors.

Banks' Exposure to Opaque and Illiquid Assets a Concern

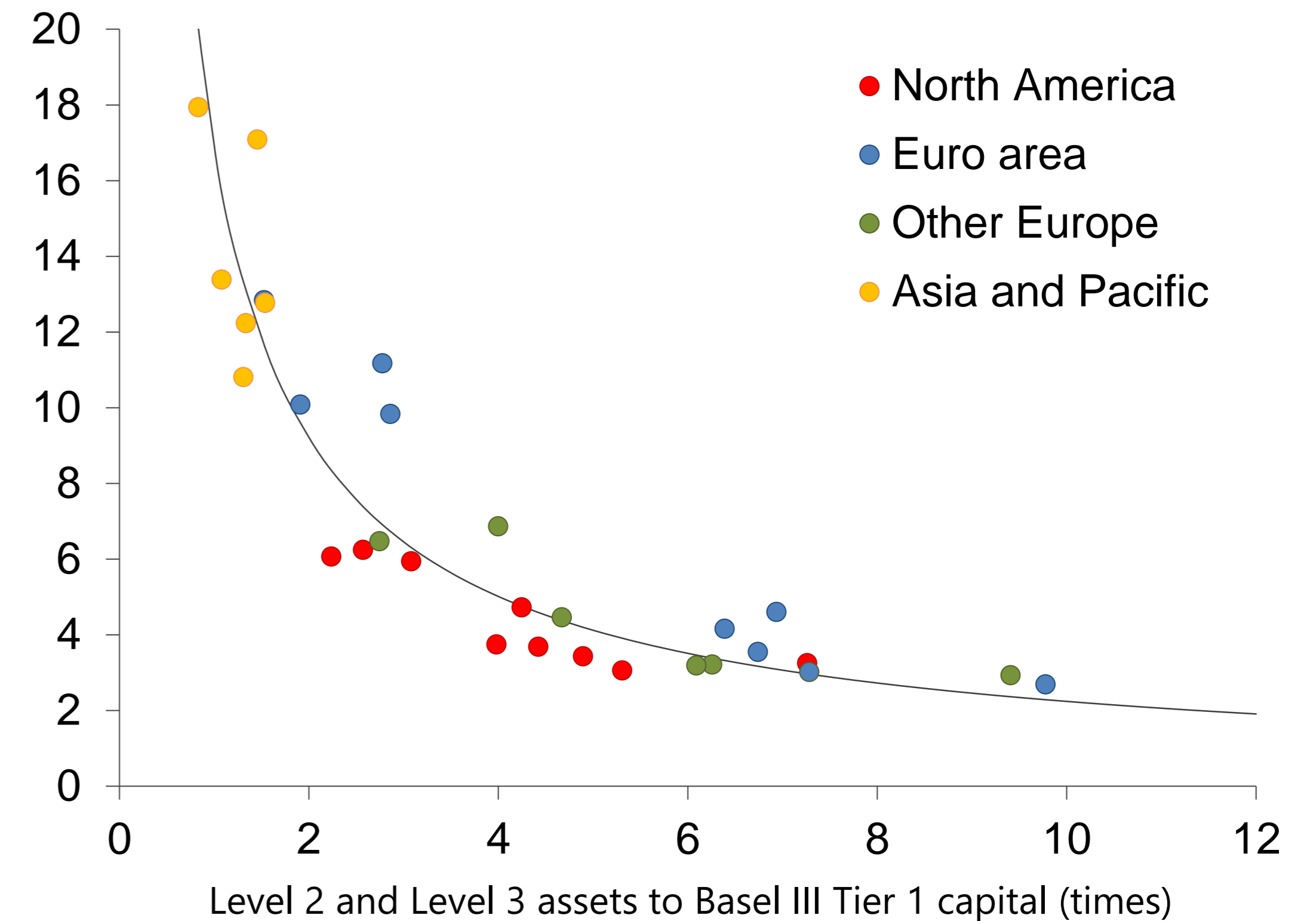
G-SIB holdings of illiquid assets have fallen ...

G-SIB Holdings of Level 2 and Level 3 Assets
(Multiple of Basel III Tier 1 capital)



... but these holdings are still large relative to capital of some G-SIBs.

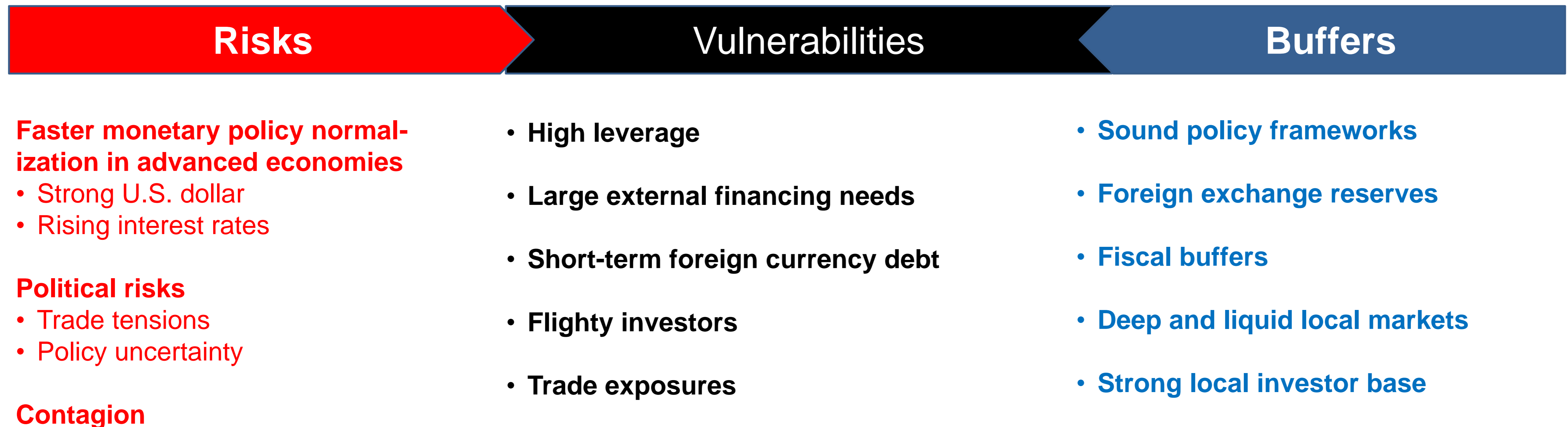
Exposure to Level 2 and Level 3 Asset, 2018
(percent)



Note: the vertical axis shows the estimated loss (in percent) on Level 2 and Level 3 assets that would result in a 1 percentage point reduction in each bank's leverage ratio.

EM Vulnerabilities Need to Be Carefully Monitored

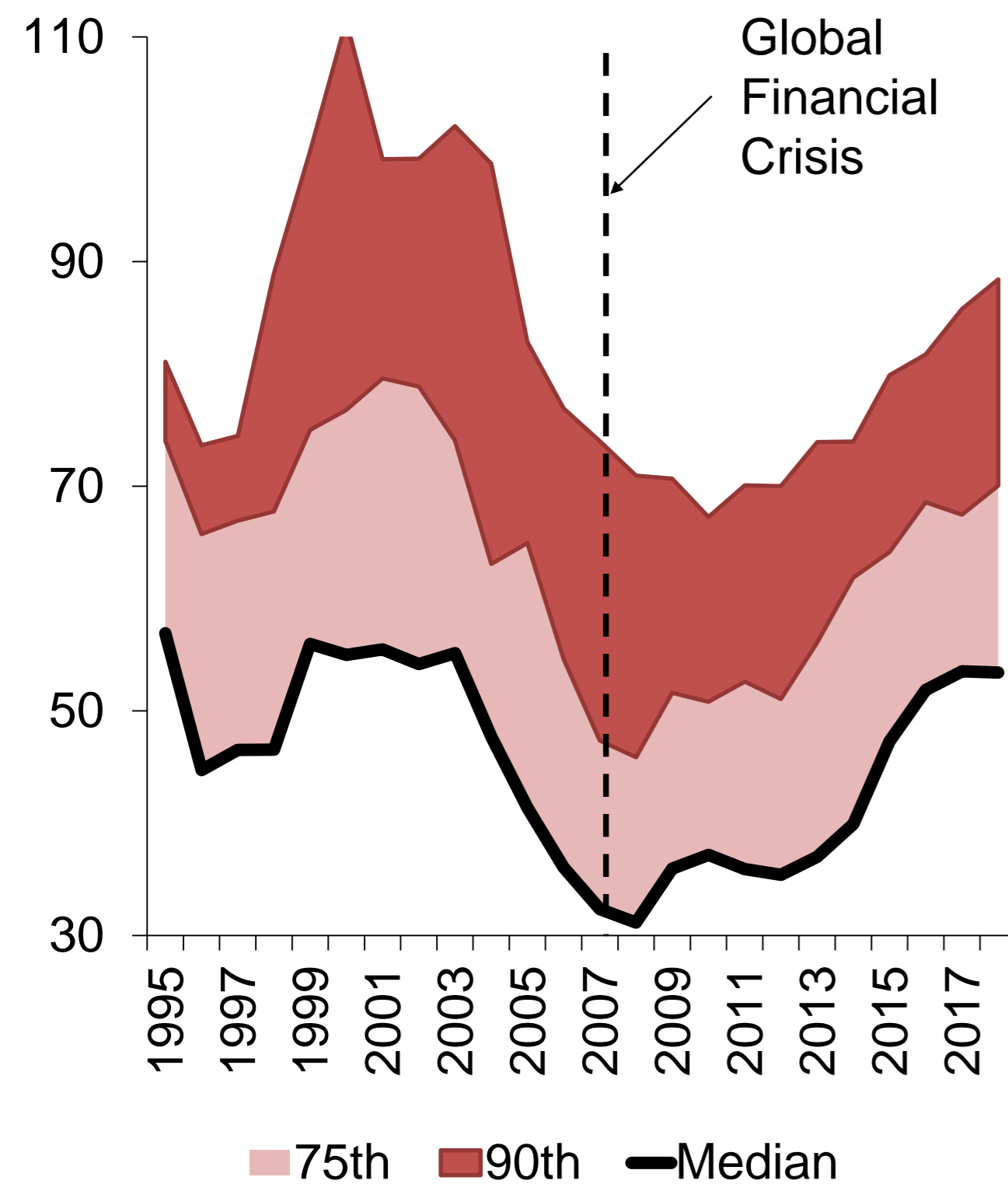
Emerging Markets: Key Risks and Vulnerabilities



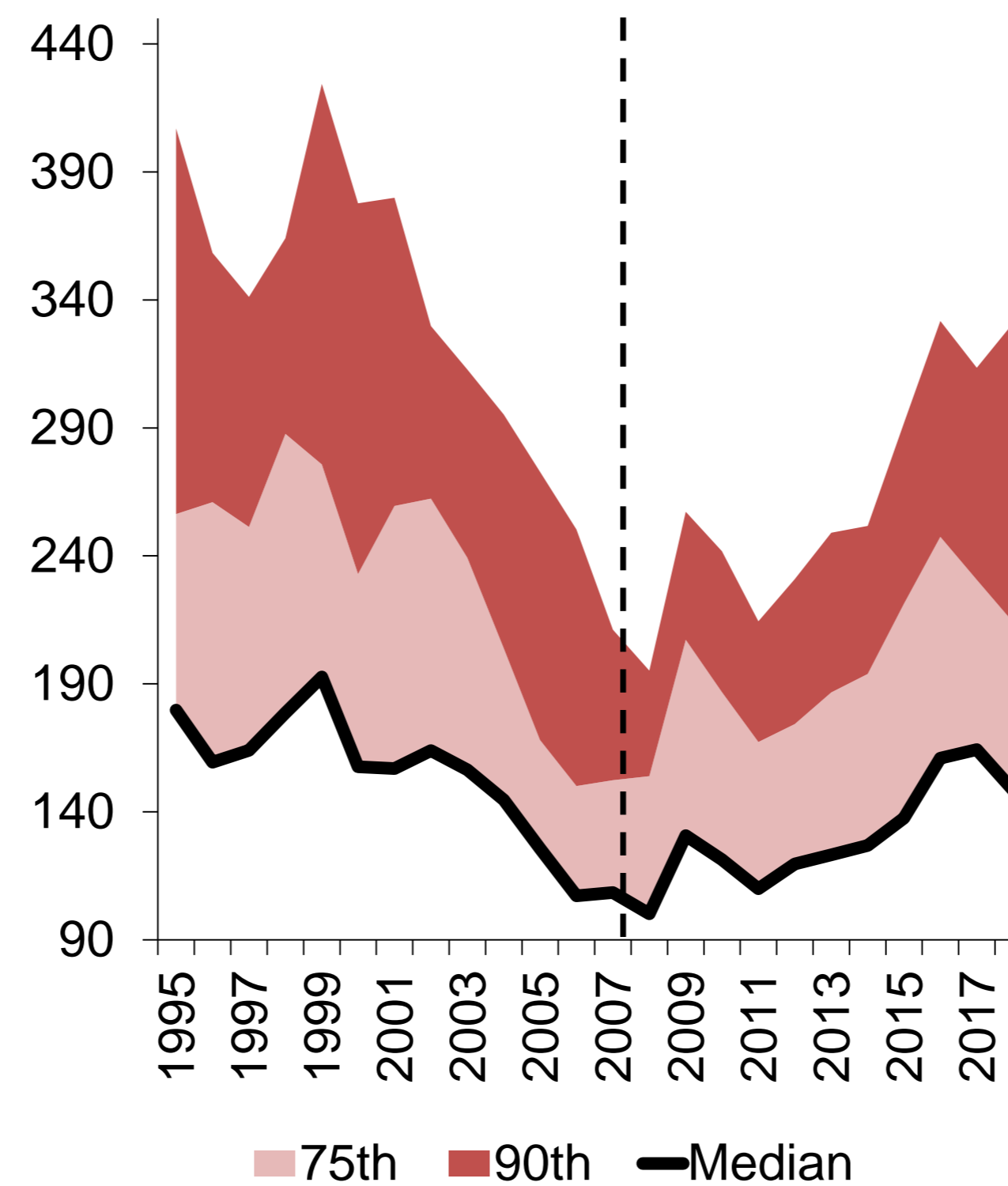
High Public and External Debt Are Key Vulnerabilities for EMs

Public debt and external debt ratios have increased across many EMs since the global financial crisis, while FX reserve ratios have remained close to the pre-crisis levels

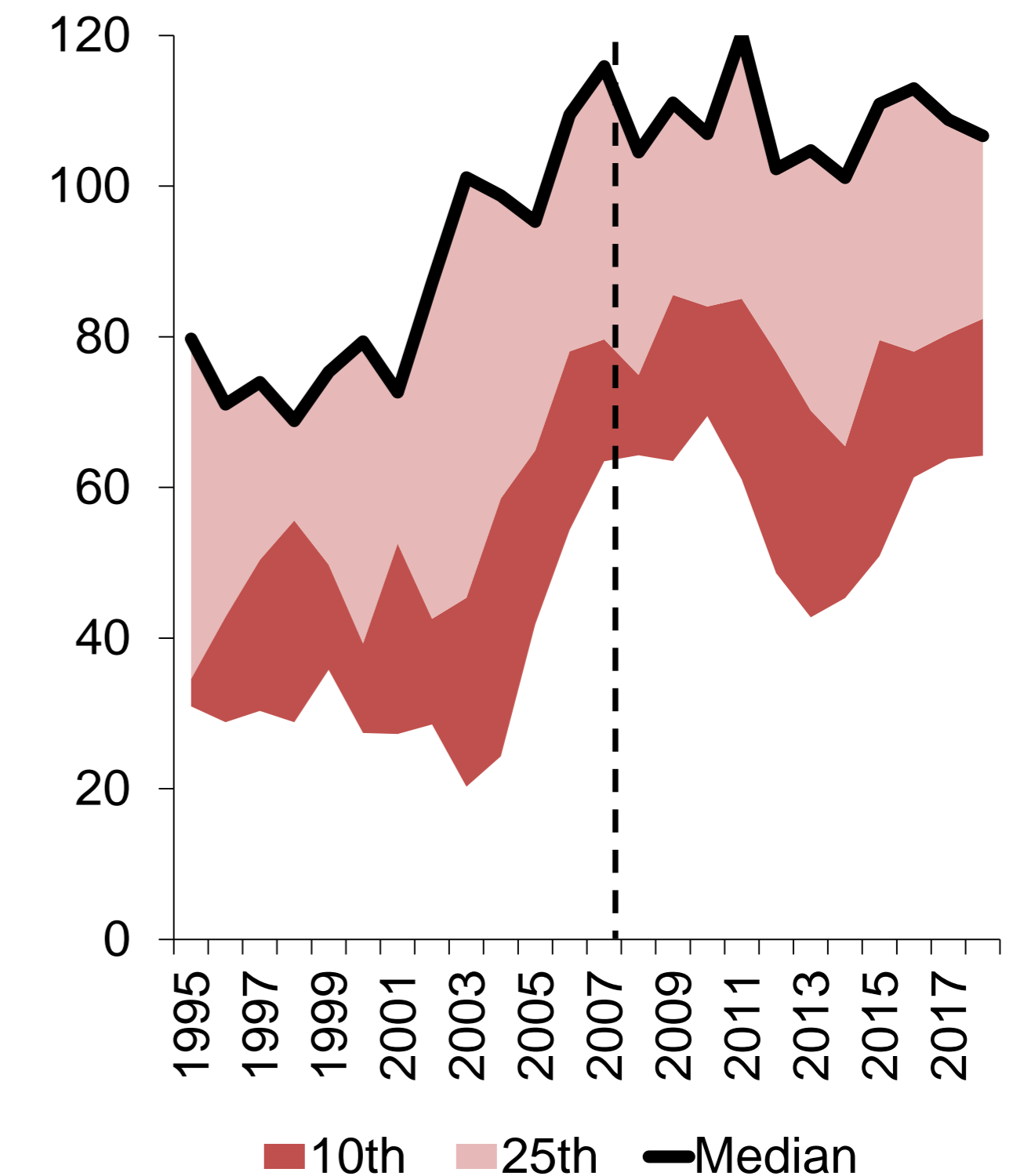
Government Debt to GDP



External Debt to Exports



Reserves to ARA Metric 1/



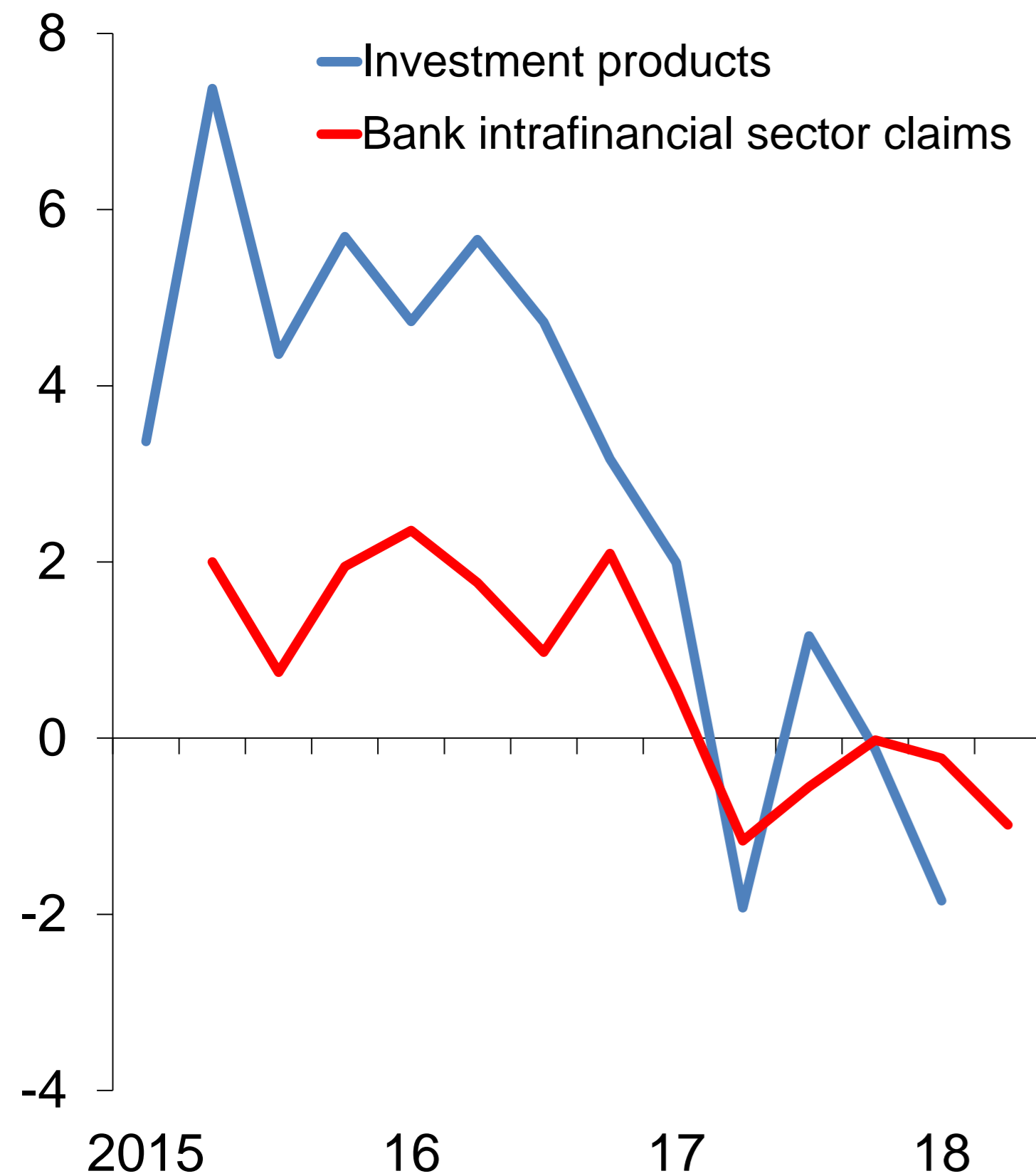
Notes: all ratios in percent. Red shades show the weakest percentiles of all EMEs for each vulnerability metric.

1/ The ARA metric reflects potential balance-of-payment FX liquidity needs in adverse circumstances and is used to assess adequacy of FX reserves against potential FX liquidity drains (see IMF Policy Paper, 2015 "Assessing Reserve Adequacy-Specific Proposals.")

China: Deleveraging and De-risking Progress

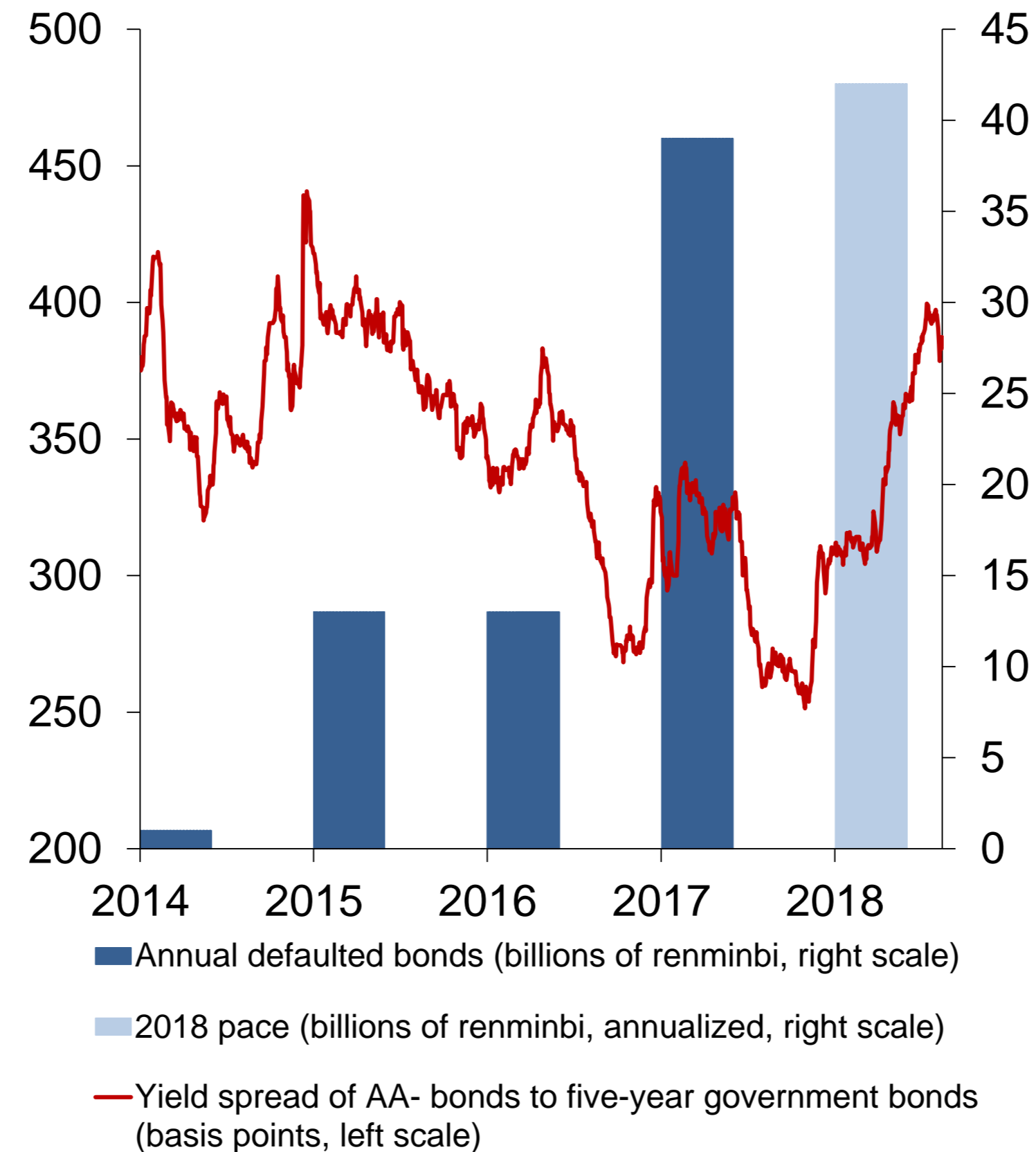
Regulatory tightening has slowed the buildup of risks in financial sector...

Investment Products and Small-to-Medium Bank Claims on Financial Institutions
(Three-month change, trillions of renminbi)



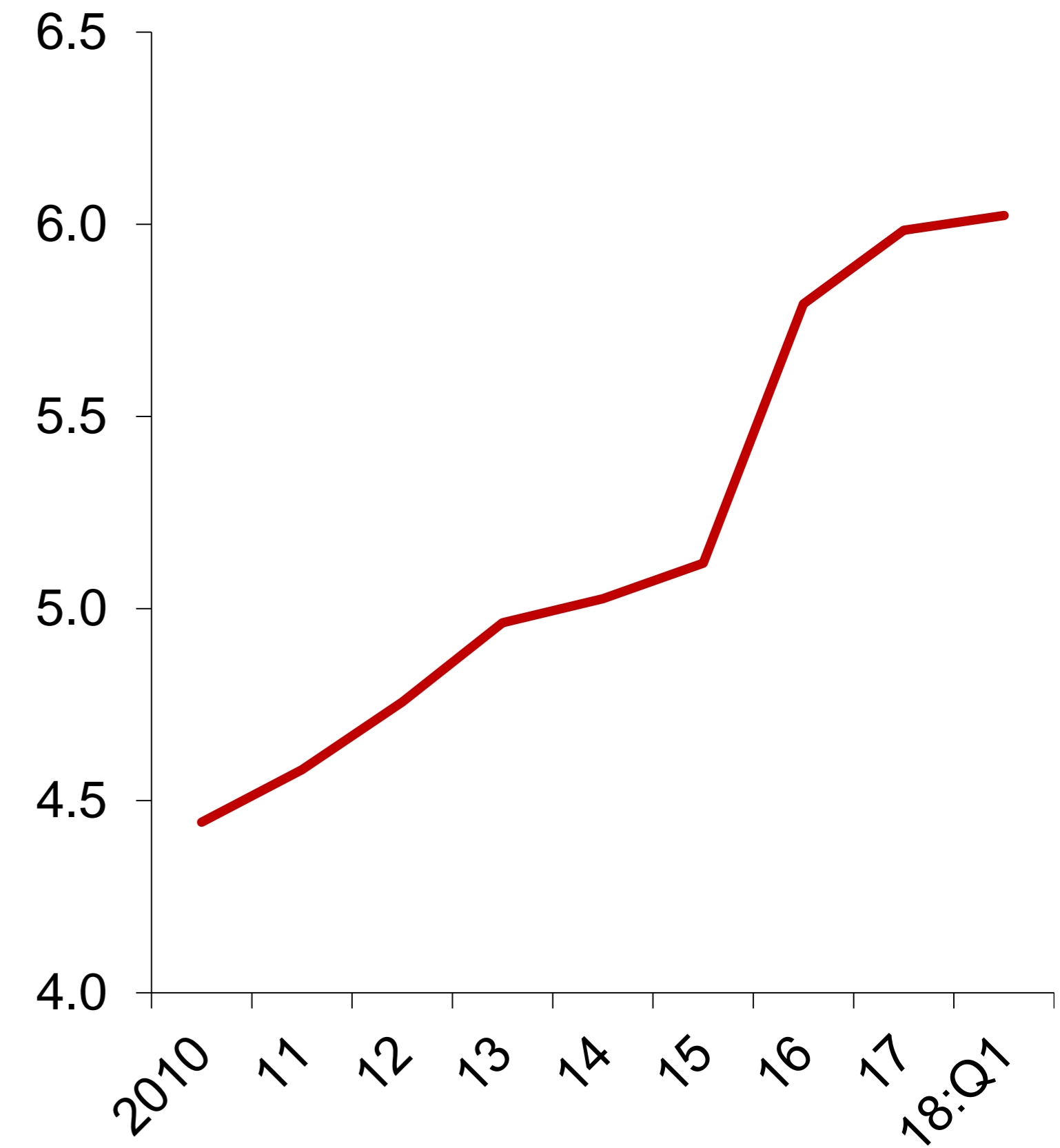
... and led to tighter credit conditions for weaker borrowers...

Corporate Defaults and Corporate Bond Spreads
(Billions of renminbi, basis points)



... but the deleveraging process is far from complete.

Leverage at Nonfinancial Traded Companies
(Top 100 Chinese firms by assets)

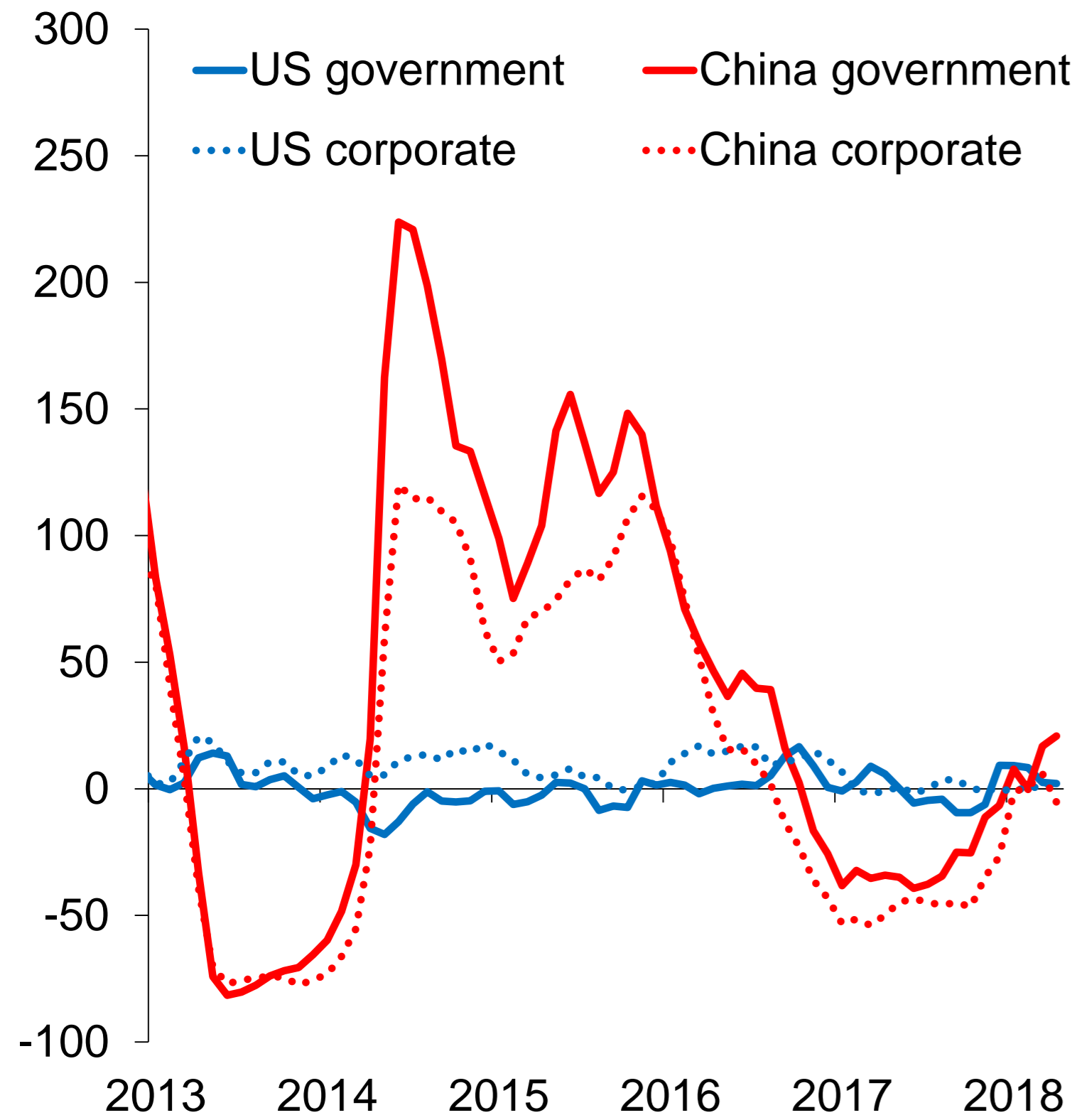


Note: Leverage is measured as the ratio of liabilities to common equity.

Liquidity Risk in the Chinese Bond Market

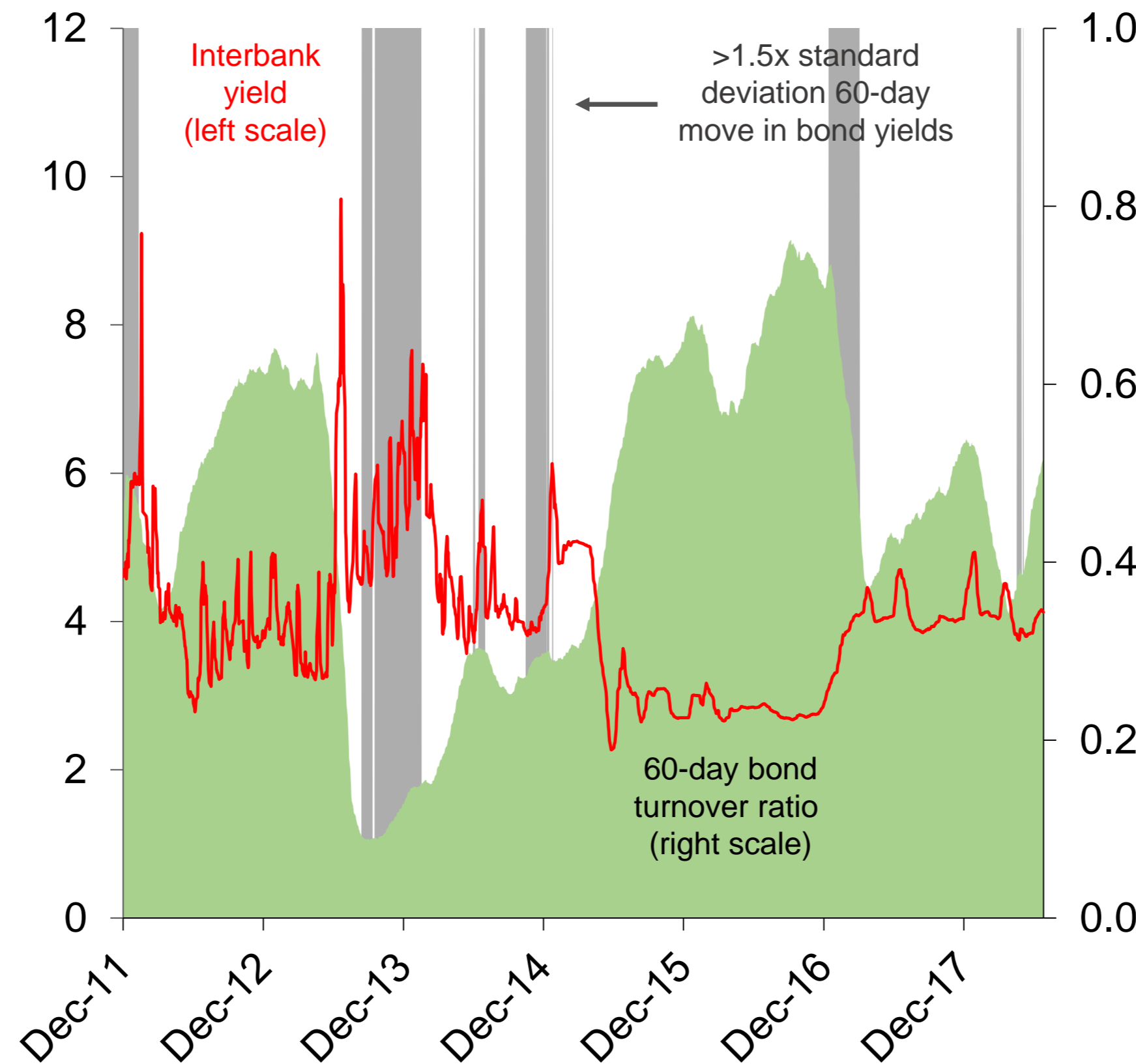
Trading turnover fluctuates more than in other countries...

Annual Growth in 3-Month Average Bond Trading Volumes, by Country and Bond Type (Percent)



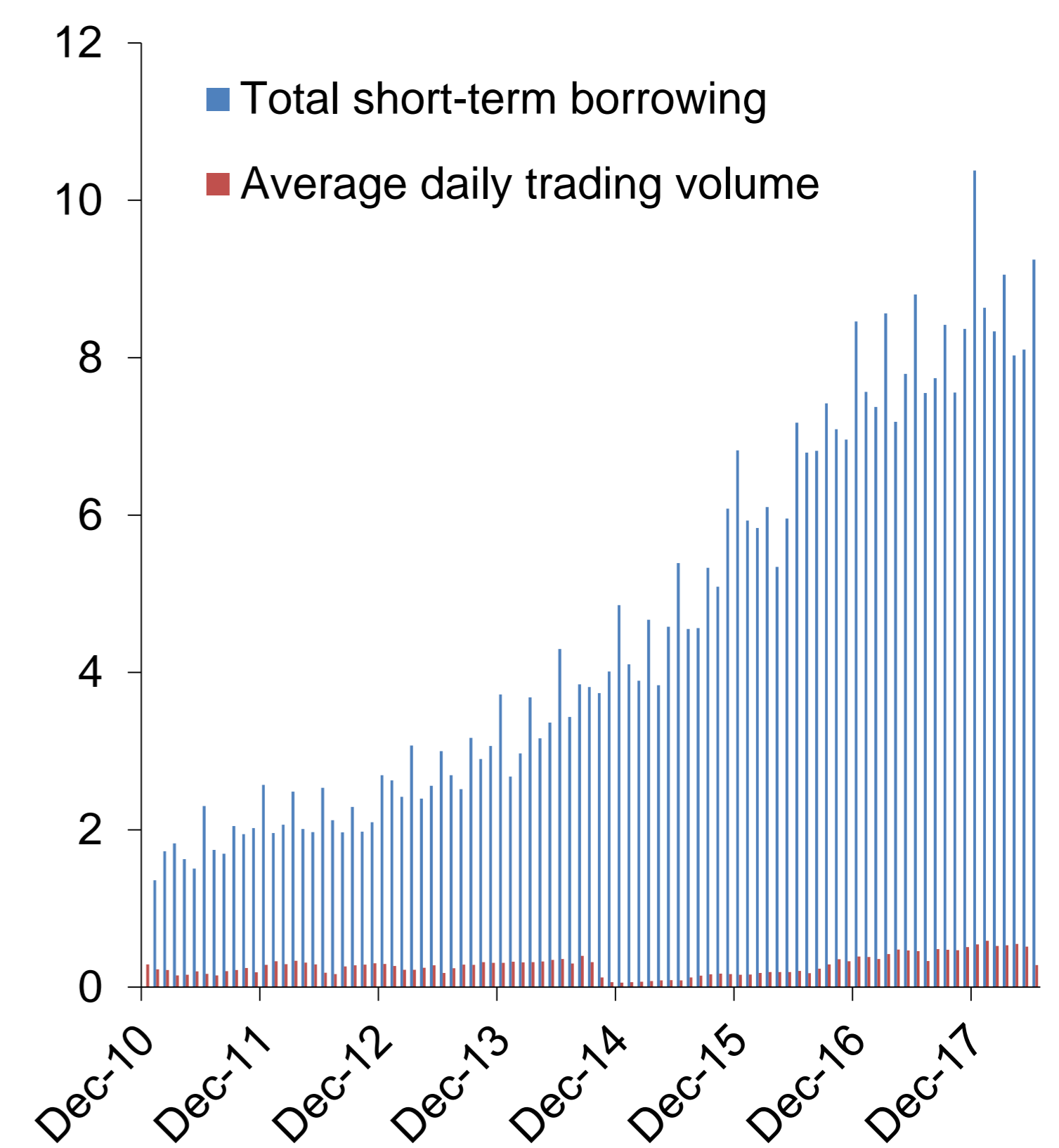
... and volumes tend to fall when interbank rates rise.

Rolling 60-day Sum of Daily Bond Trading to Outstanding Total and One-Month SHIBOR interbank Rate



Trading volumes decline poses risks given growing short-term borrowing

Repo Borrowing Outstanding and Trading Volumes (Trillions of Renminbi)



Japanese Banks Cross-Currency Funding

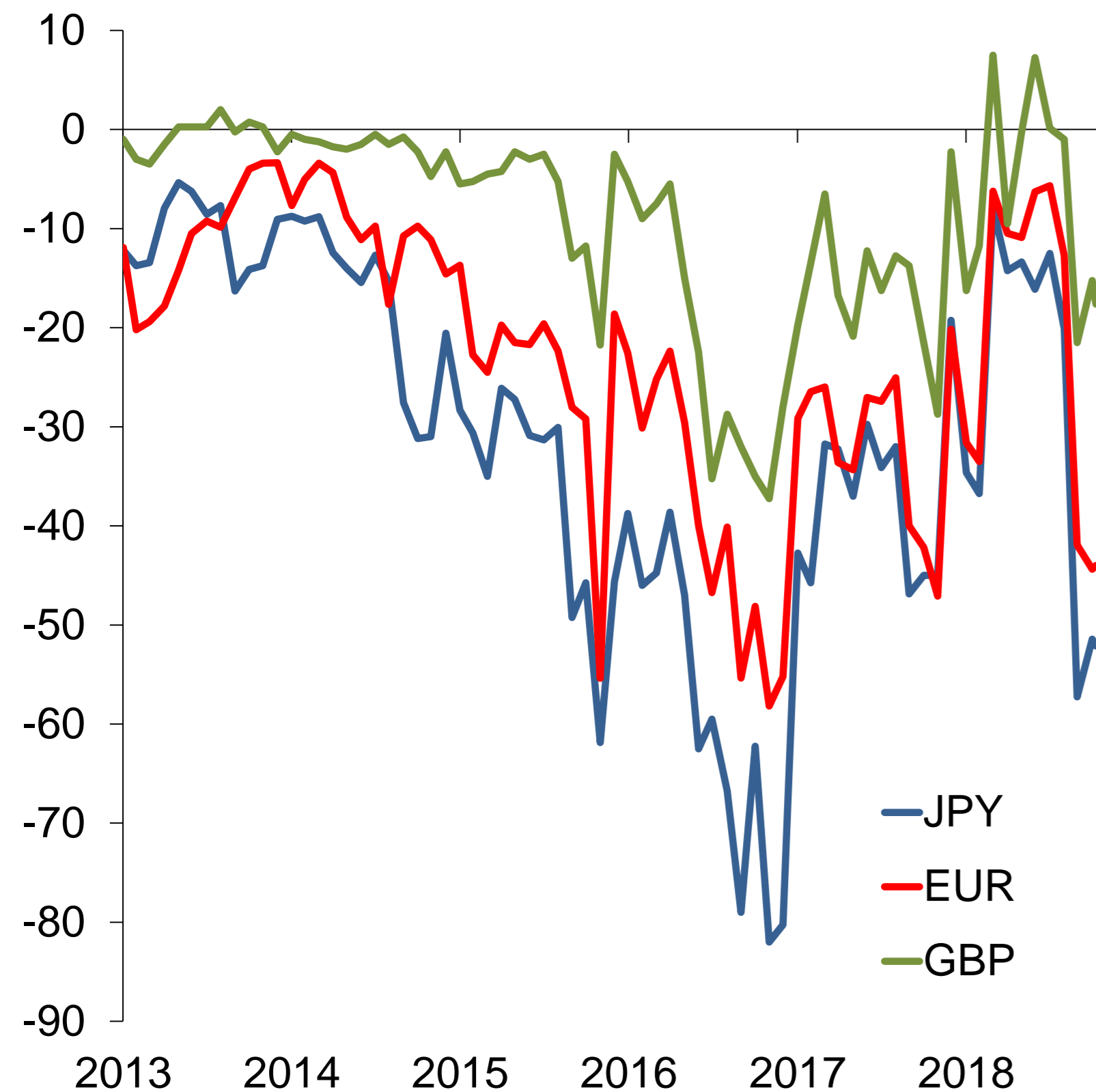
Dollar funding conditions remain relatively tight

Japanese banks are reliant on cross-currency funding via swaps...

... while supply is shifting from banks to nontraditional financial institutions

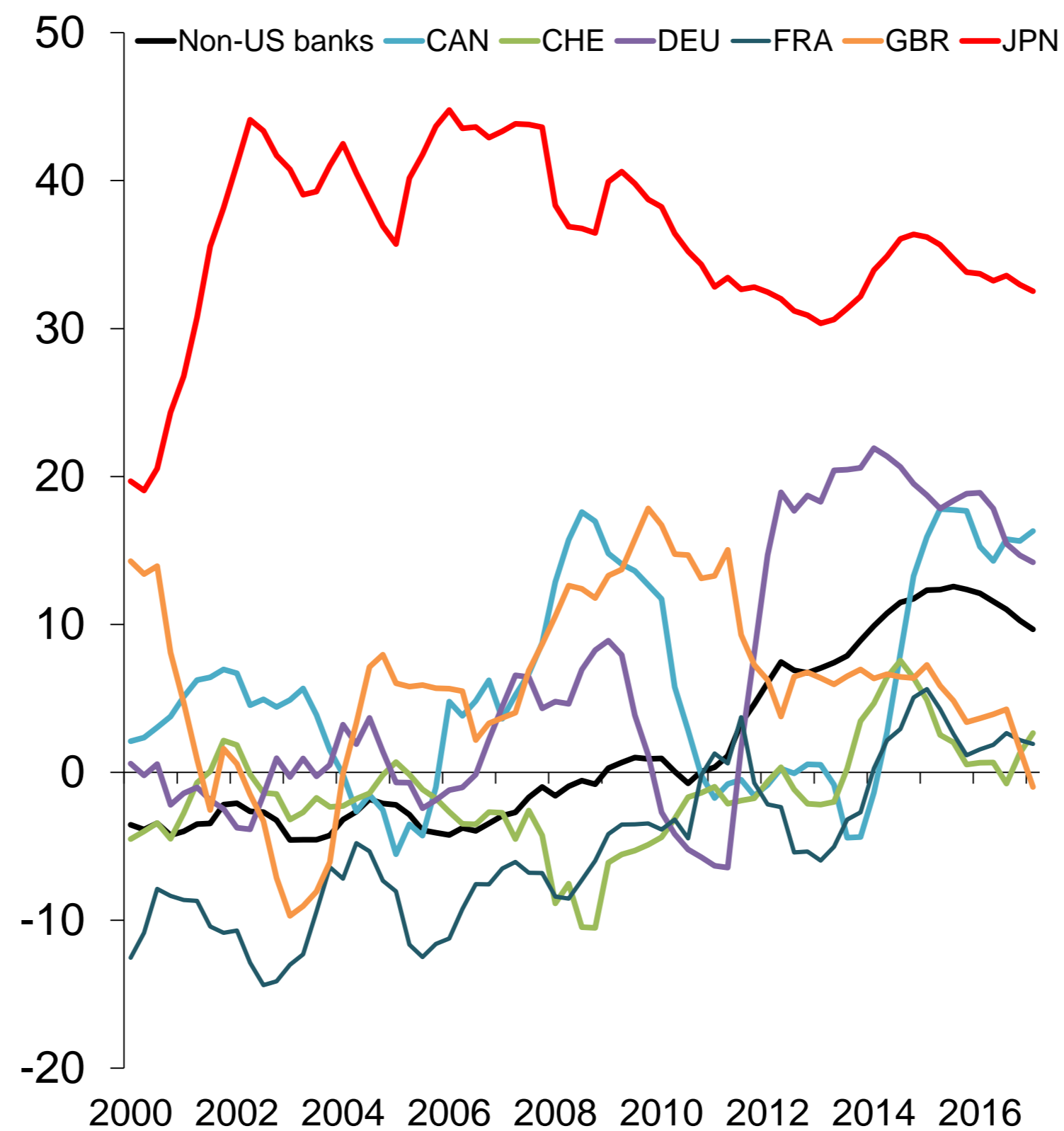
Cross-Currency Basis Swaps

(Spread on three-month swaps, basis points)



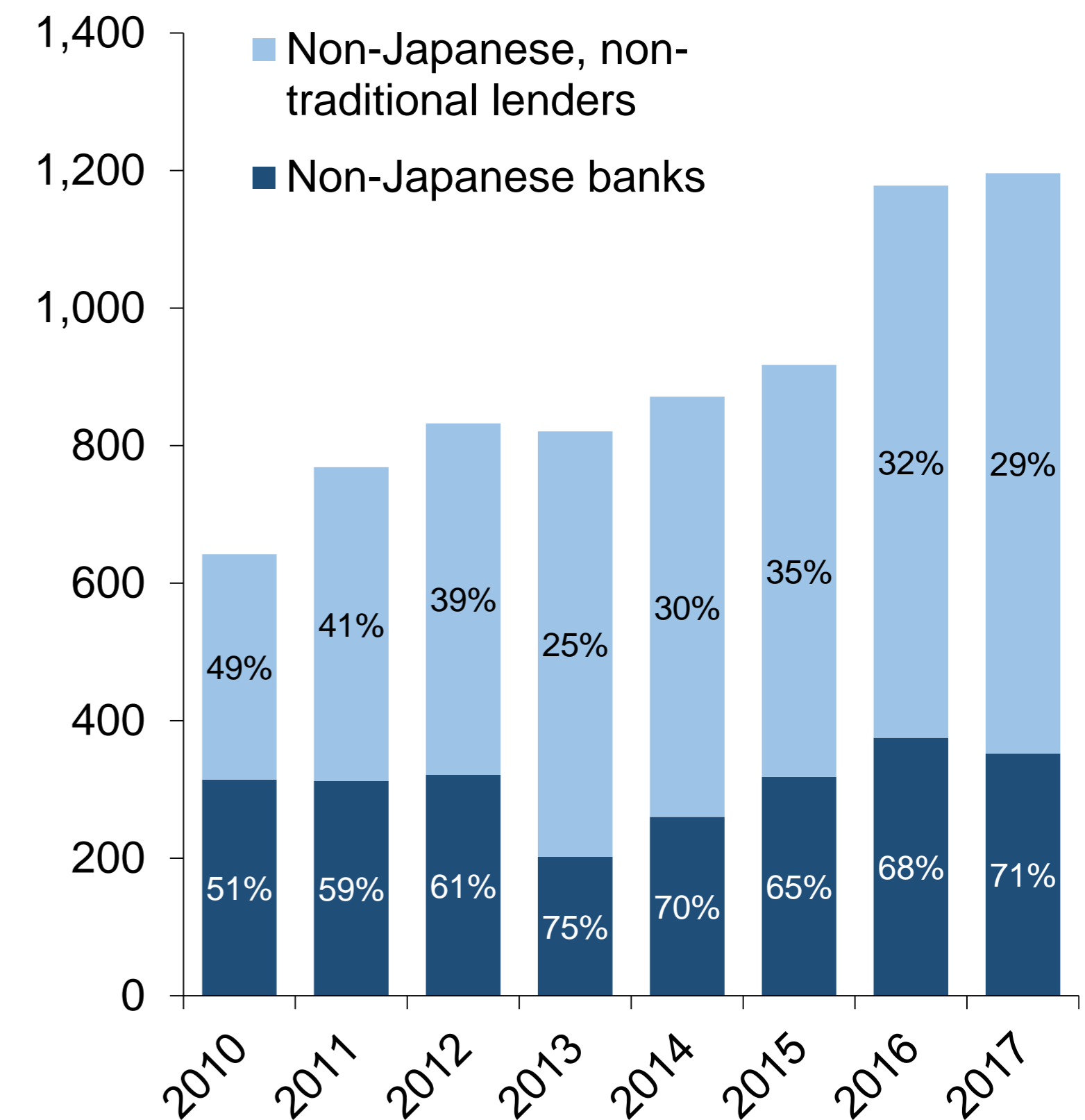
US Dollar Cross-Currency Funding Ratio

(Net cross-currency derivatives as percent of total assets)



Supply of Foreign Exchange Derivatives to Japanese Financial Institutions

(Billions of US dollars)



Note: Data as of October 2018 Global Financial Stability Report

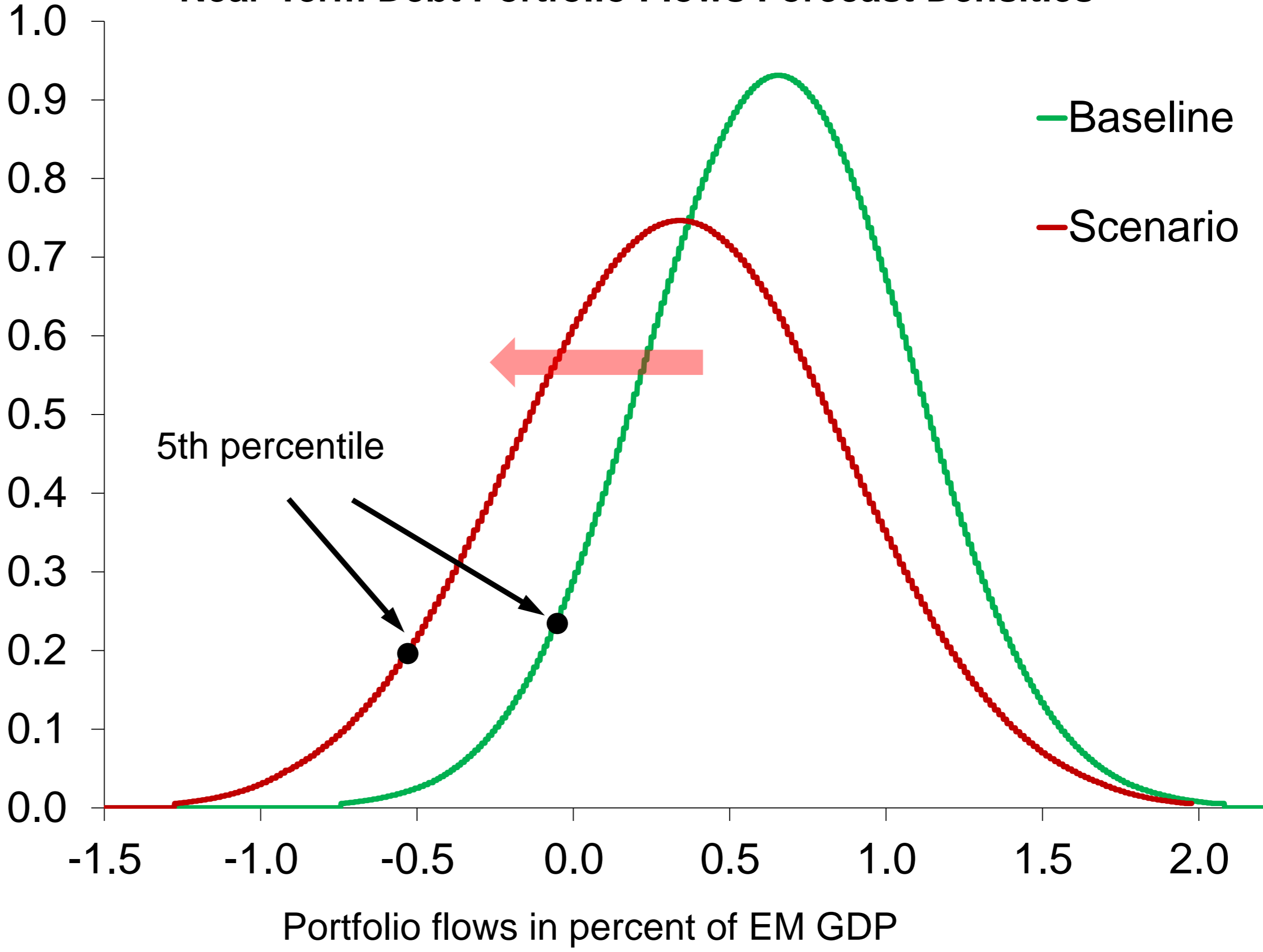
FINANCIAL STABILITY RISKS

The Outlook for EMs Remains Challenging

A deterioration in the global risk appetite could lead to larger portfolio outflows from EMs

- Adverse scenario assumptions:**
- US corporate bond spreads widen by 100 bps
 - US 10-years bond yields fall 30 bps
 - The US dollar rises 5 percent

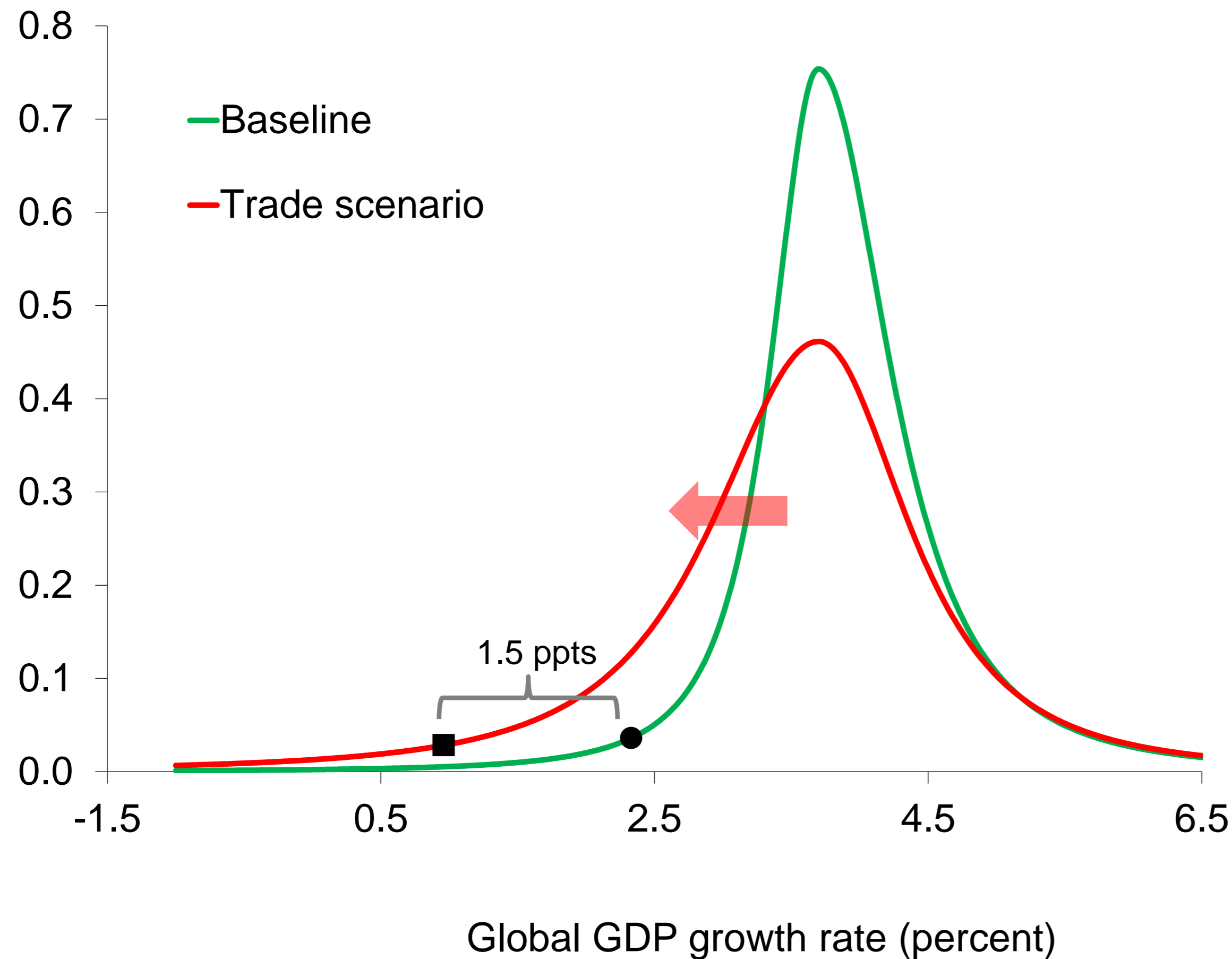
**Baseline and Adverse Scenarios:
Near-Term Debt Portfolio Flows Forecast Densities**



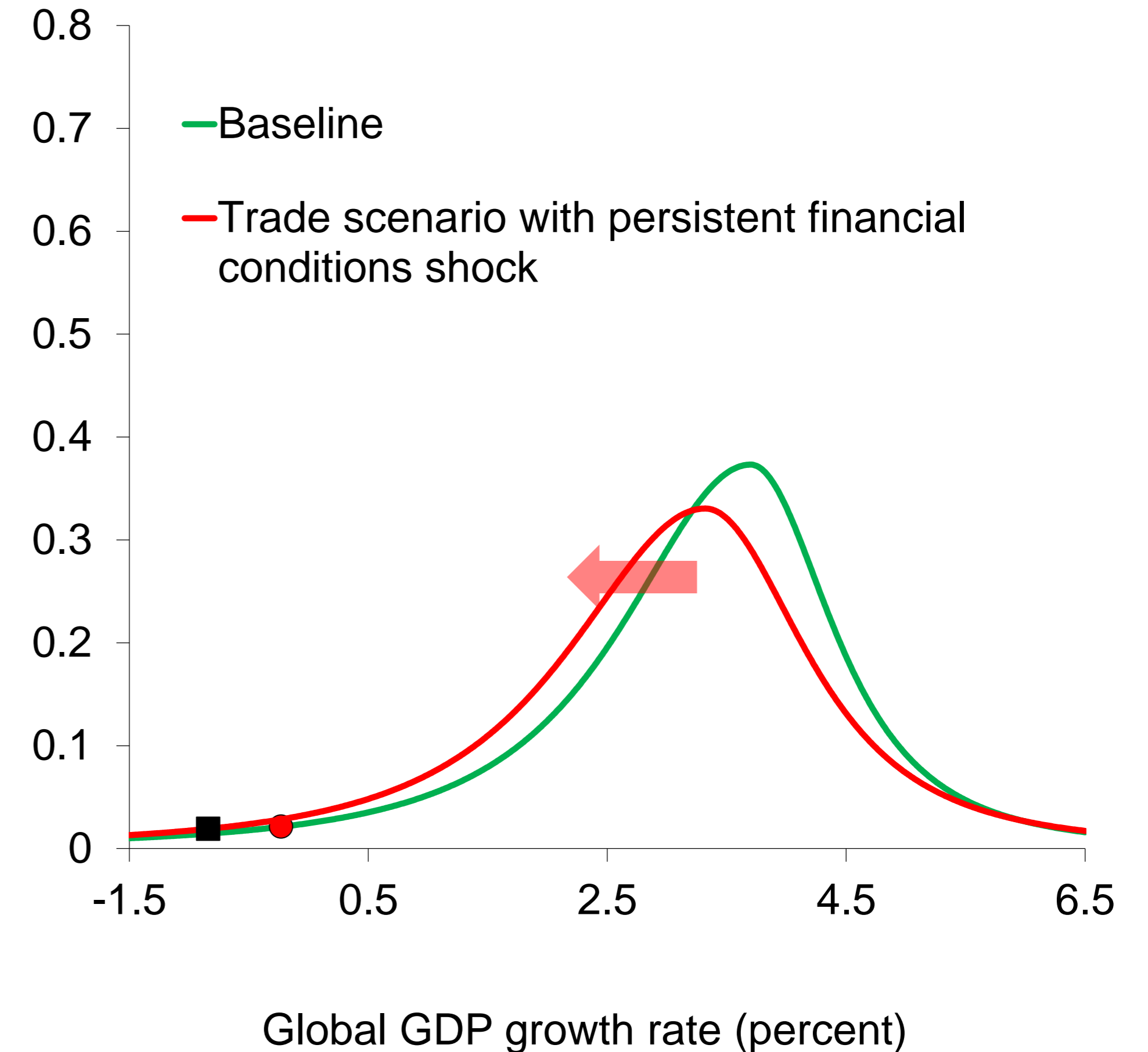
An Escalation of Trade Tensions Could Raise Financial Stability Risks

WEO/GFSR Trade Tensions Scenario: Growth Forecast Densities

Near Term



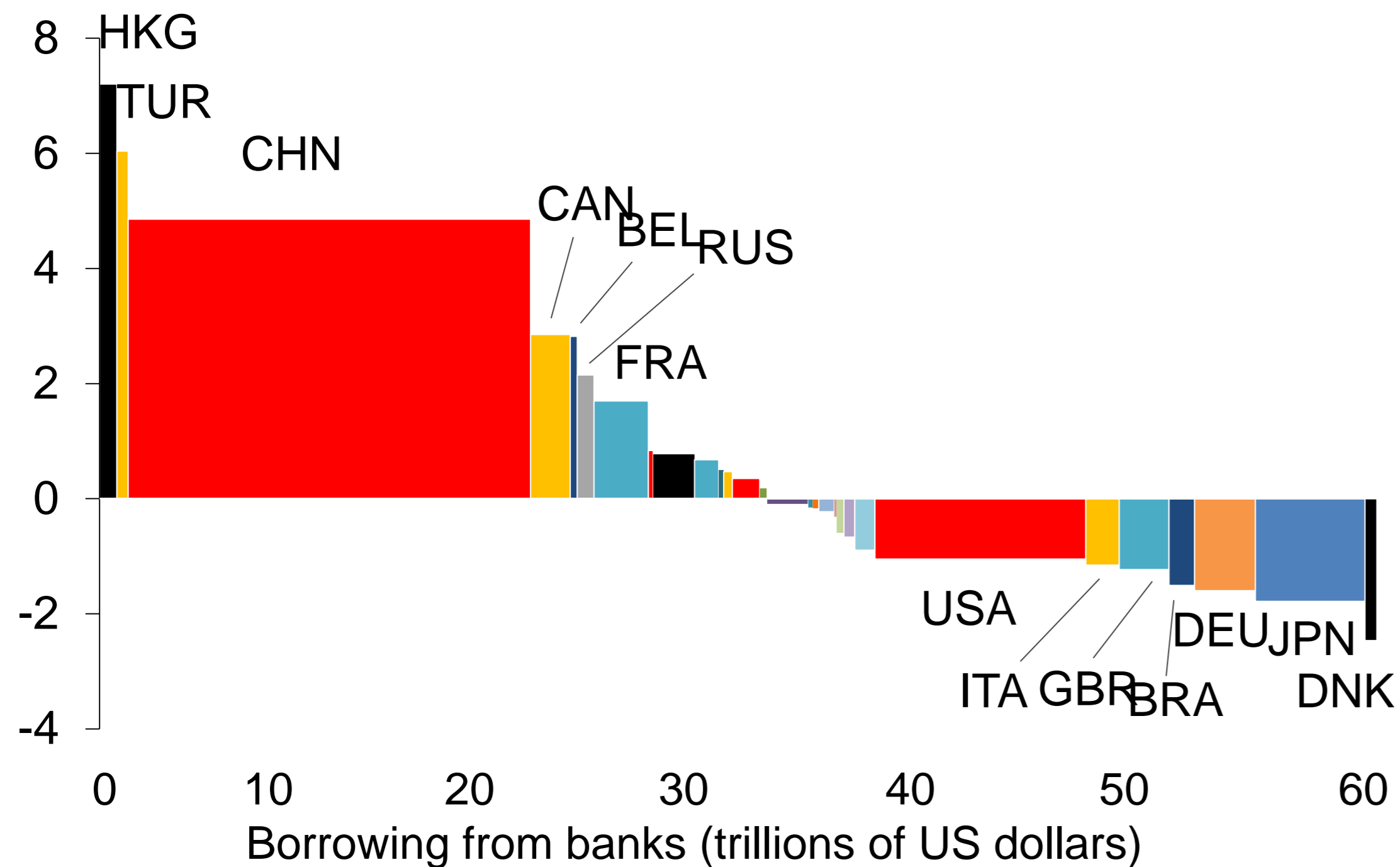
Medium Term



Banks' Exposure to the Non-Financial Sector

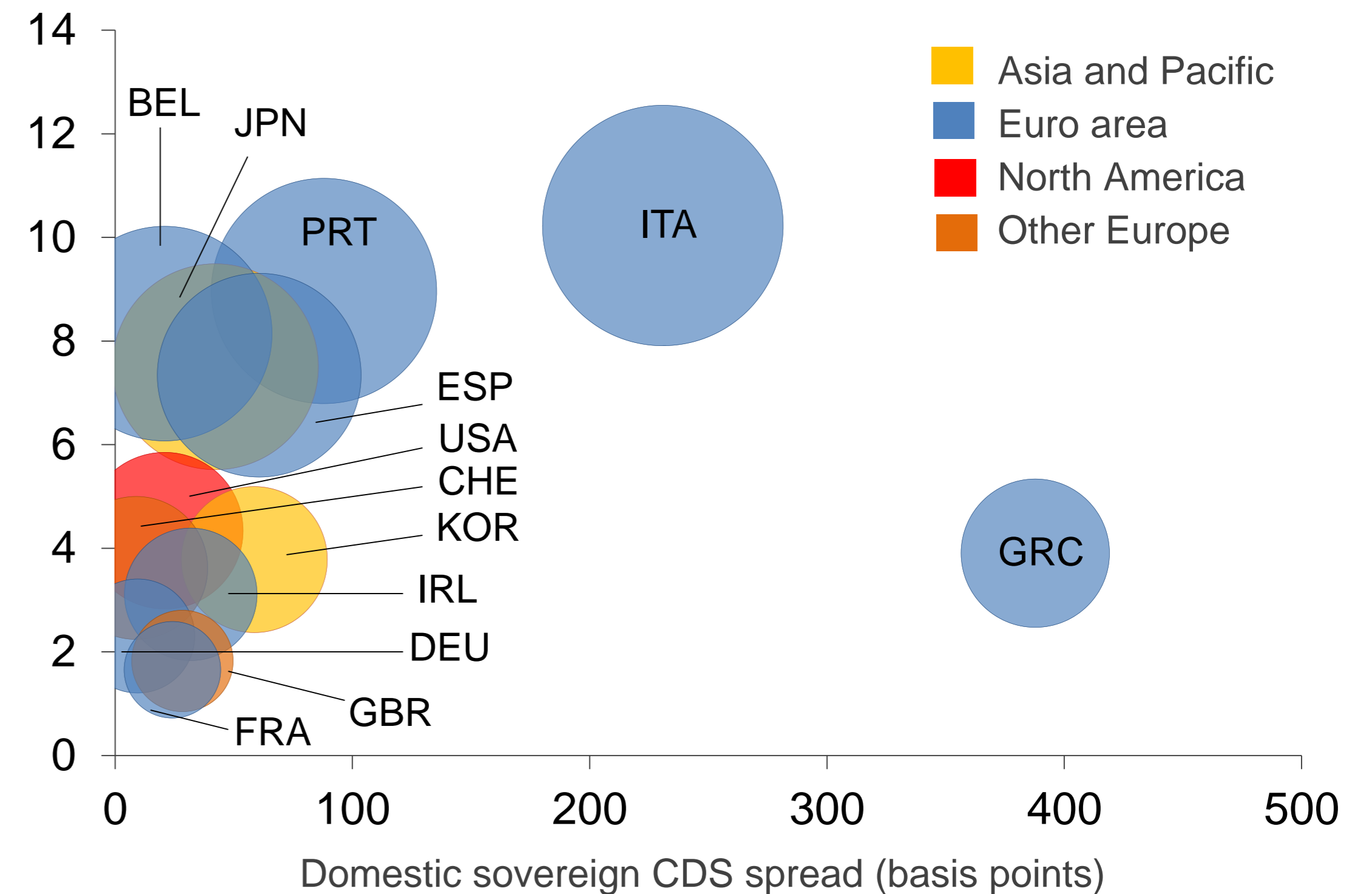
Banks are exposed to countries with high debt-service ratios...

Private Nonfinancial Sector Debt-Service Ratios and Debt Levels, 2017:Q4
(percentage point deviation from each country's mean)



... and risks from growing "sovereign-bank" nexus are rising

Banking System Exposure to Domestic Governments, 2018
(Percent of assets)

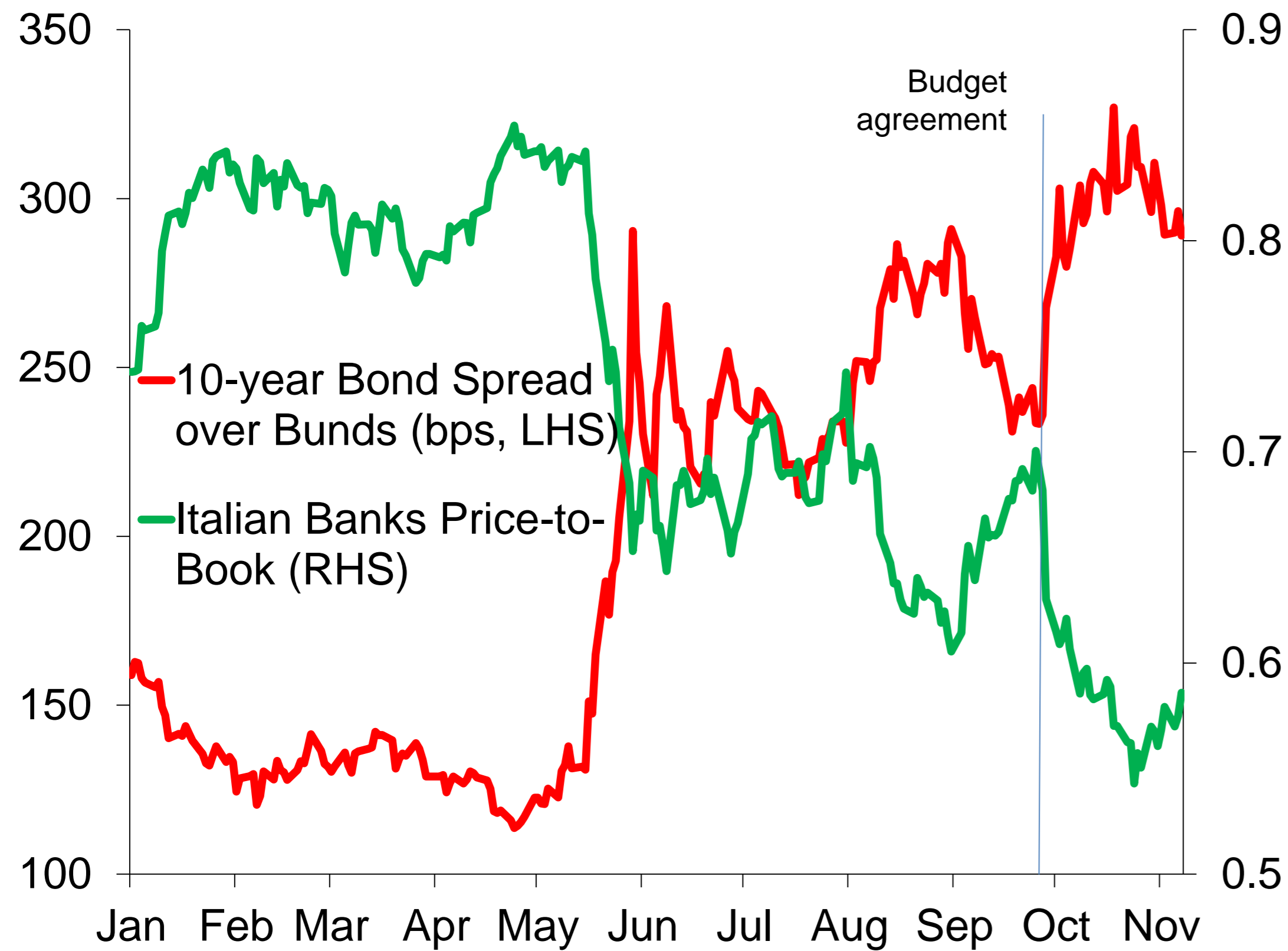


Note: Based on the latest available data in 2018. The size of the circles is proportional to the banking systems' exposure to their domestic government (relative to assets)

An Increase in Policy Uncertainty Could Trigger A Risk-off Sentiment

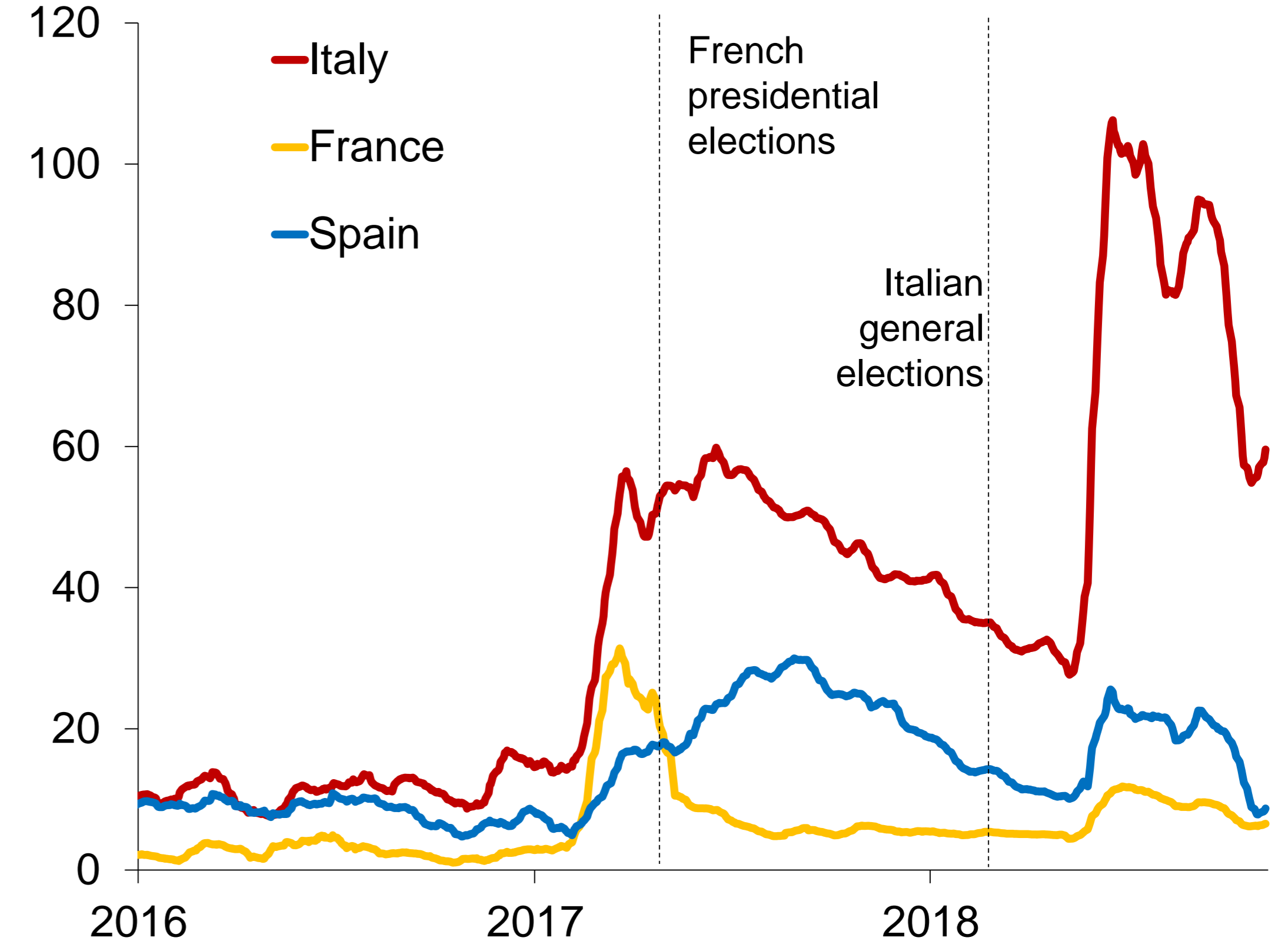
Markets remain concerned about fiscal policy uncertainty in Italy...

Italian Sovereign Spreads and Bank Equities



...and redenomination risk

Italy Redenomination Risk
(CDS spread difference between ISDA '03 and '14 definitions, bps)



Brexit – Financial Stability Considerations

Short-Term Risks

- **Contractual Risks:** Unexpected changes to the legal framework governing financial services (e.g., derivative and insurance contracts)
- **Operational risks:** Uncertainties regarding regulatory environment in which financial institutions will operate during the transition

Medium-Term Challenges

- **Market liquidity** could be fragmented raising cost of funding
- **Onshore and offshore markets:** Trading venues could be duplicated
- Challenges of **risk management** because institutions could become more complex

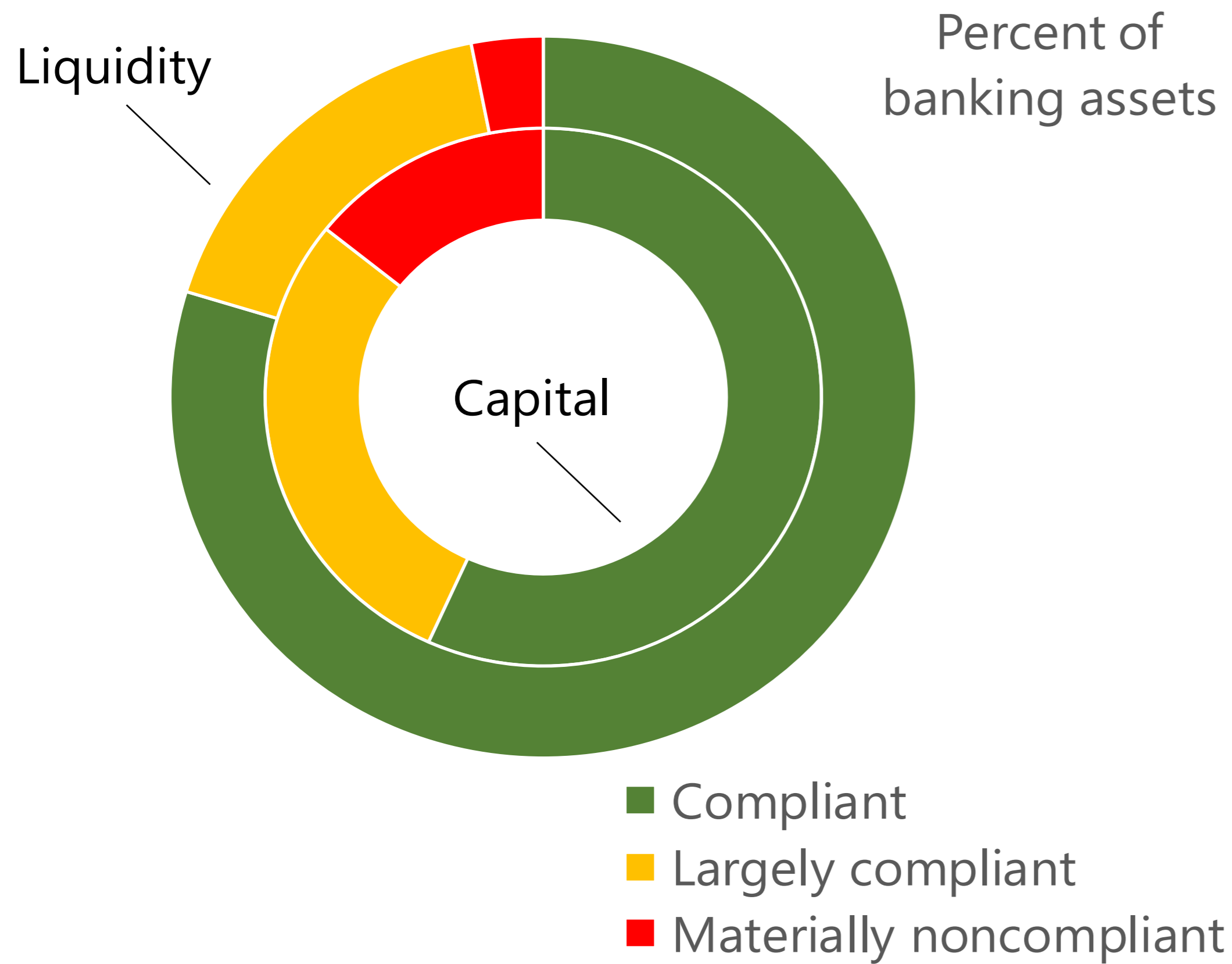
Recommendations

- **Financial institutions should step up their preparations**
- **Authorities should continue to work with private parties to reduce risks of disruption**
- **Authorities should provide more clarity on their intention to mitigate cliff-edge risks**

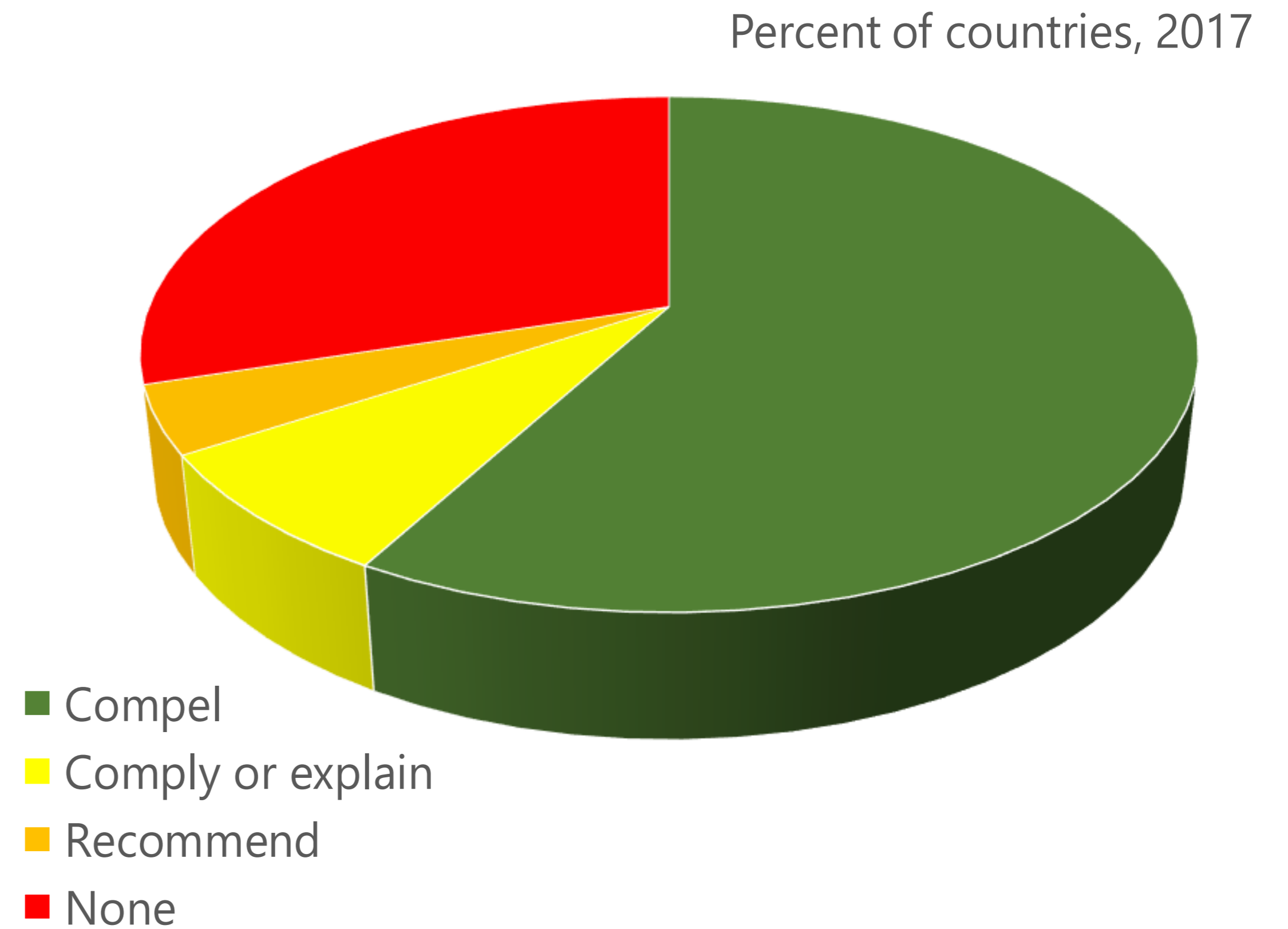
A DECADE AFTER THE CRISIS: ARE WE SAFER?

Regulatory Reform Agenda Is Yet to be Completed and Fully Implemented

Quality of Regulation and Supervision



Macroprudential Authorities' Powers



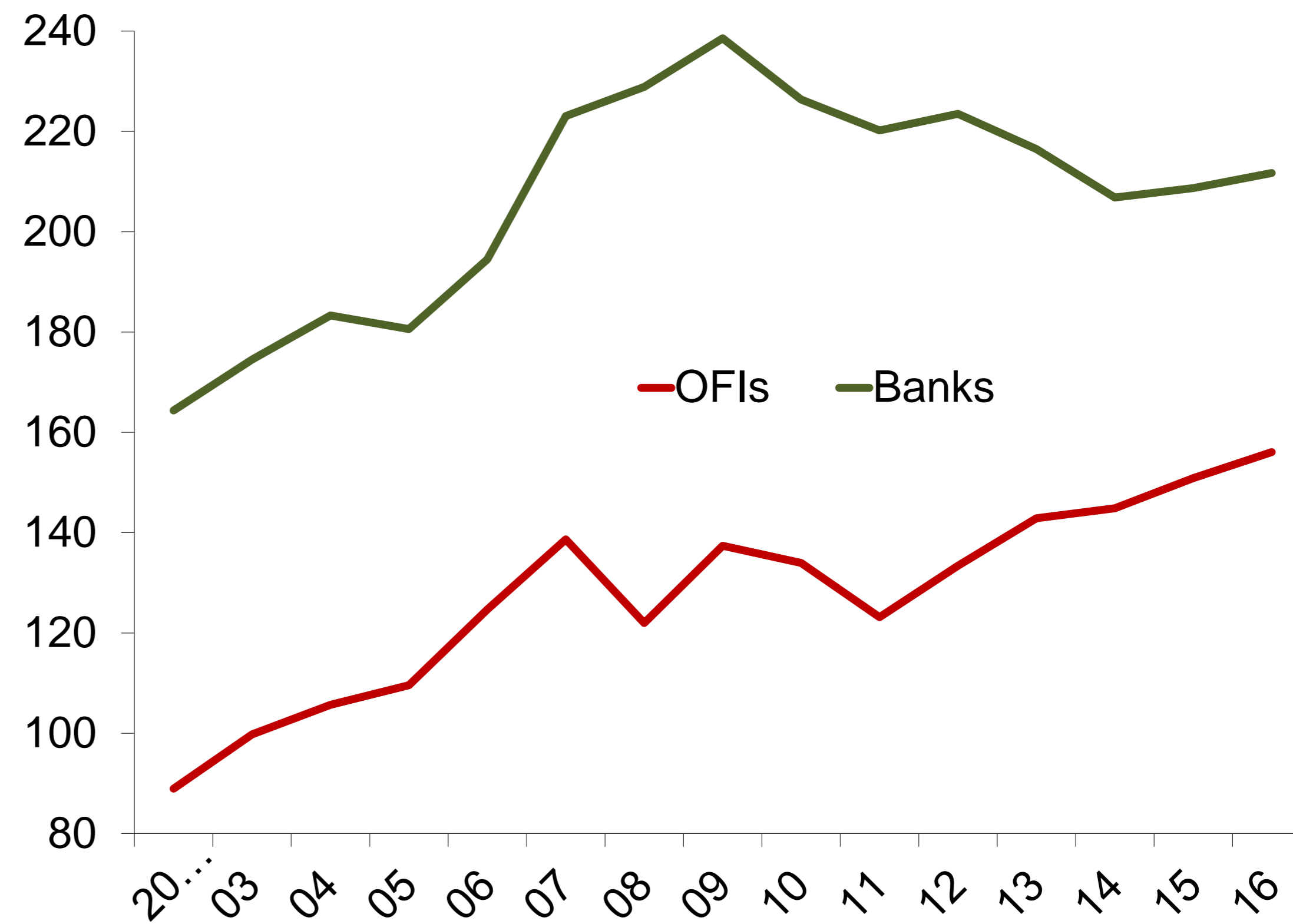
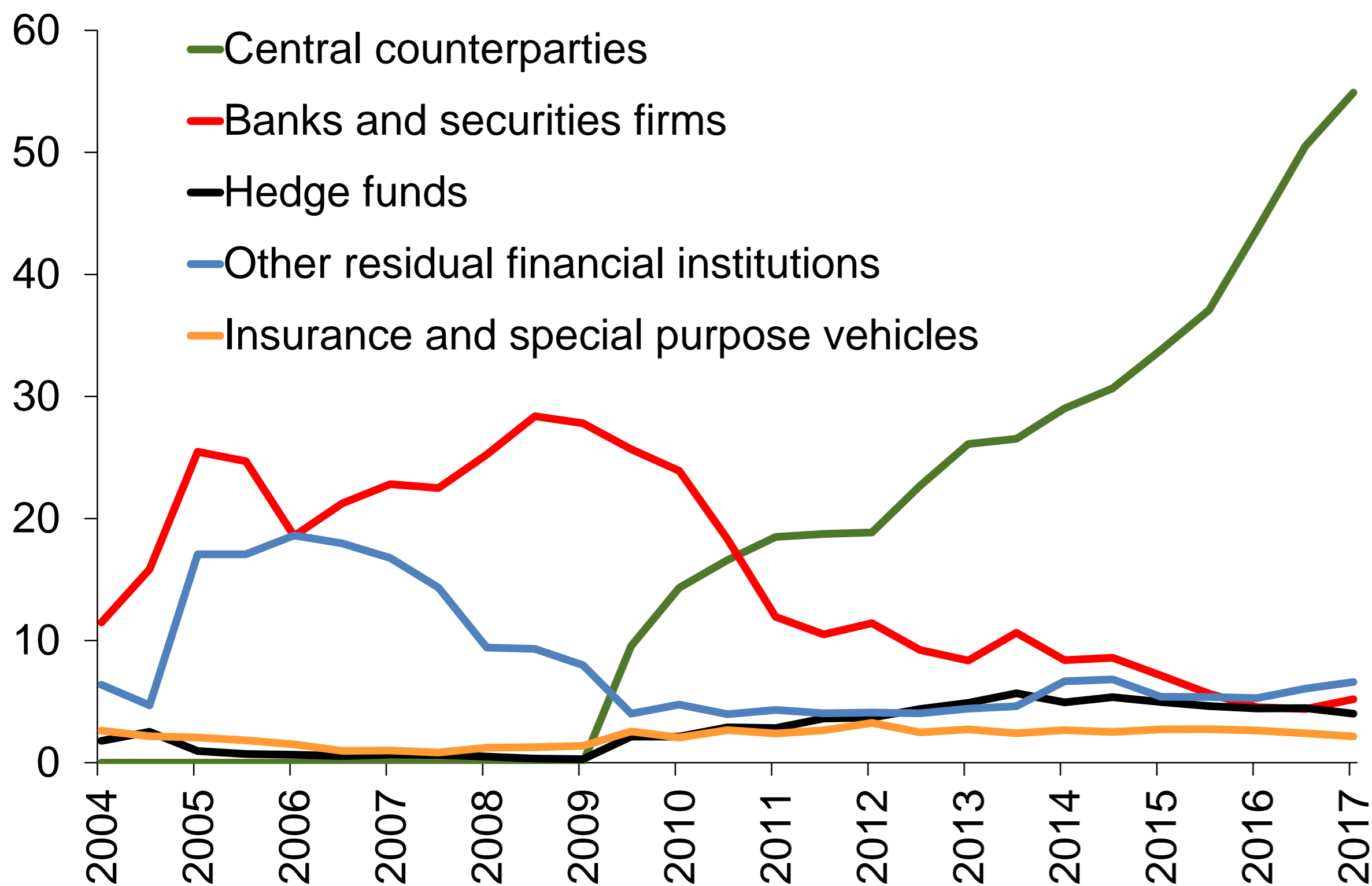
New Risks Need to Be Actively Monitored

The systemic importance of central counterparties has grown...

... and the assets of nonbank financial institutions have increased

CCPs and Other Counterparties in Derivatives Clearing
(share of different counterparties, percent)

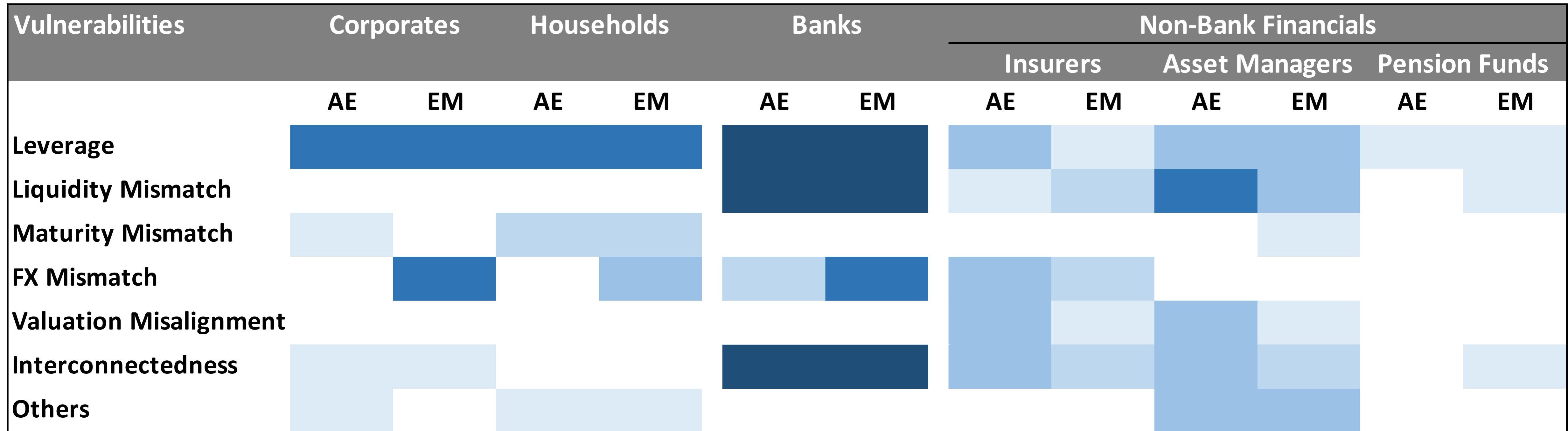
Bank and Other Financial Institutions' Assets
(percent of GDP)



Note: the remaining two categories, "reporting dealers" and "nonfinancial institutions", are not shown in the chart

Need to Actively Develop and Apply Macroprudential Tools

Availability of Macroprudential Tools for Addressing Key Vulnerabilities



Note: Colors depict number of countries reporting at least one macroprudential tool: < 20% 20-40% 40-60% 60-80% > 80%

White shading means policy tools are unavailable or not reported. "Others" includes prudential tools such as risk management requirements, reporting duties, and, less frequently fiscal measures. The tale covers 29 economies with systemically important financial sectors.