



International Monetary Fund

Rates Normalization Amid Elevated Global Financial Vulnerabilities

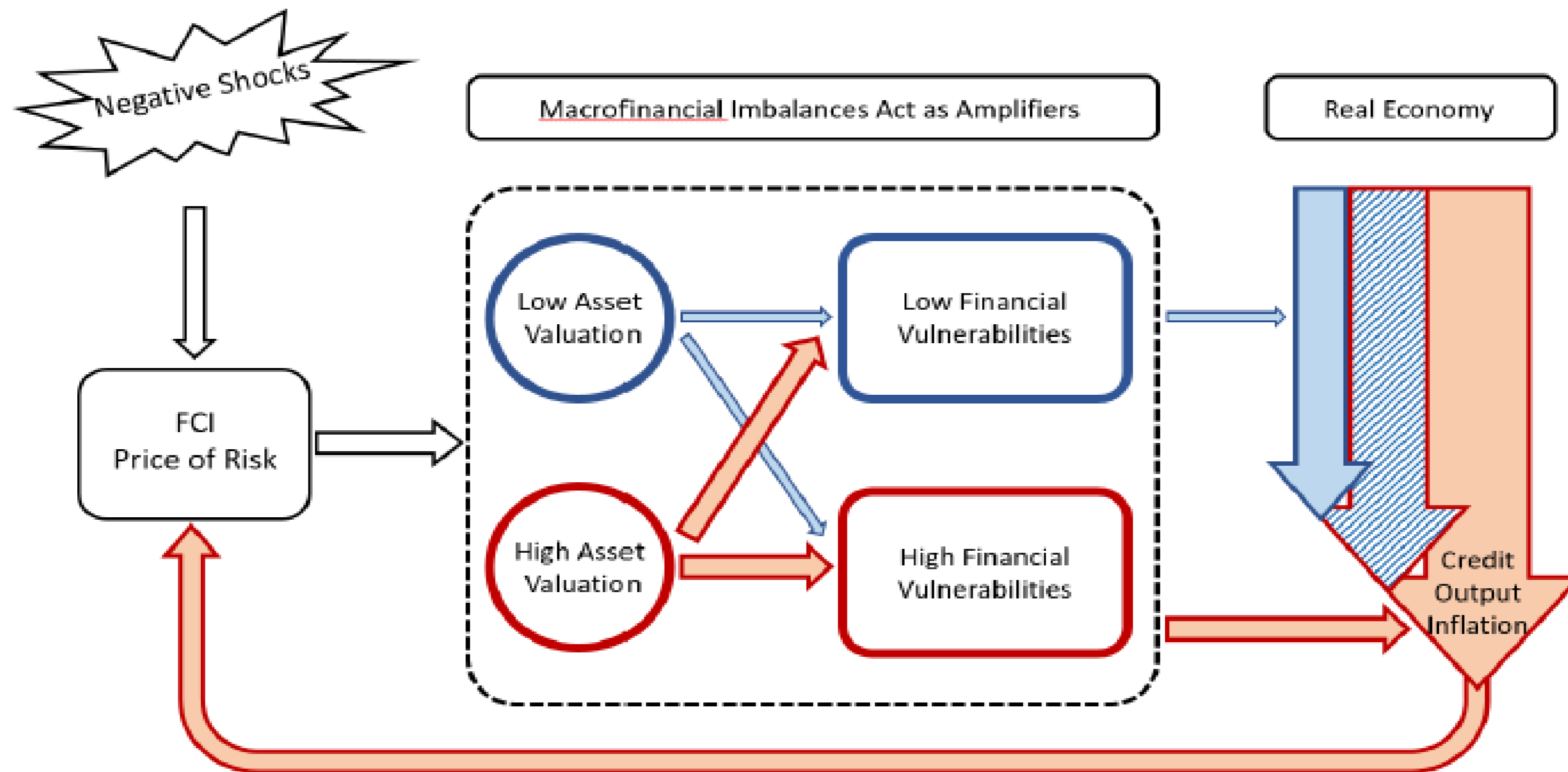
Fabio M Natalucci

RBA Annual Conference 2022

**“The Causes, Challenges and Consequences of
the Low Interest Rate Environment”**

The Growth-at-Risk Approach to Financial Stability

Figure 2. Transmission and Amplification of Shocks and Risks to the Macroeconomy

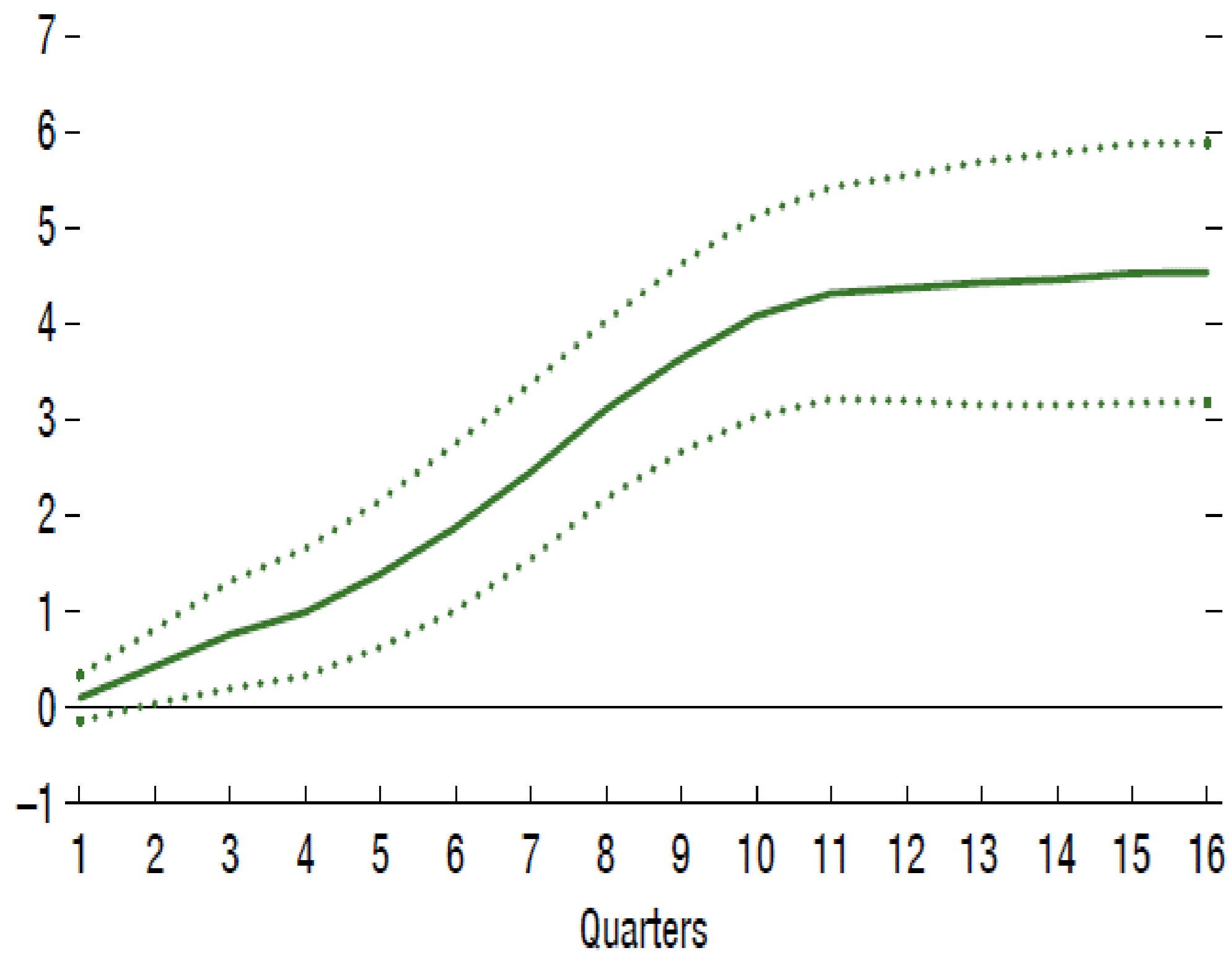


Source: IMF staff.

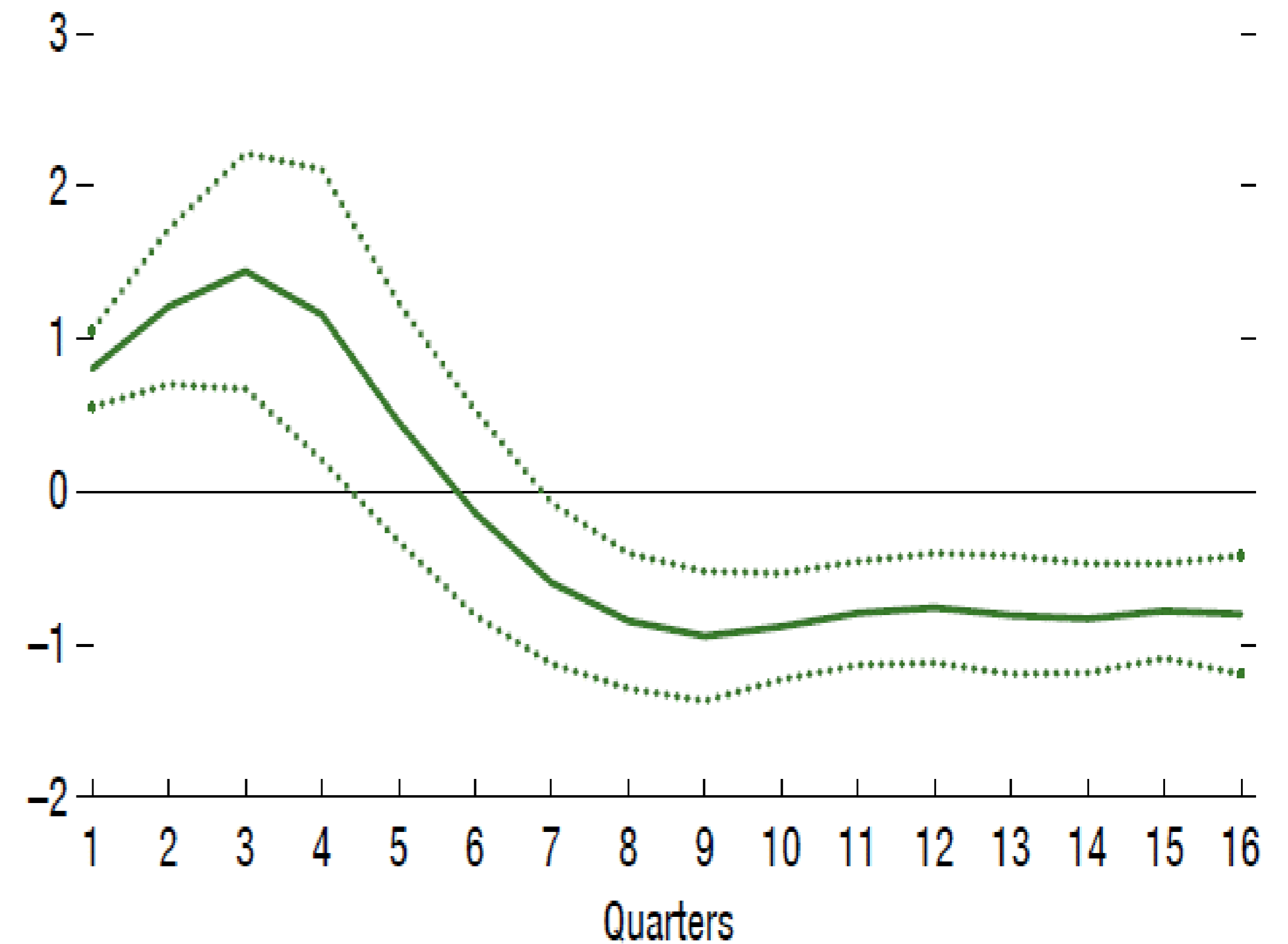
Note: FCI = financial conditions index.

Easing of FCs, Corporate Leverage and Downside Risks to Growth

Impact of a Loosening of Financial Conditions on the Change in Corporate Leverage
(Percentage Points of GDP)

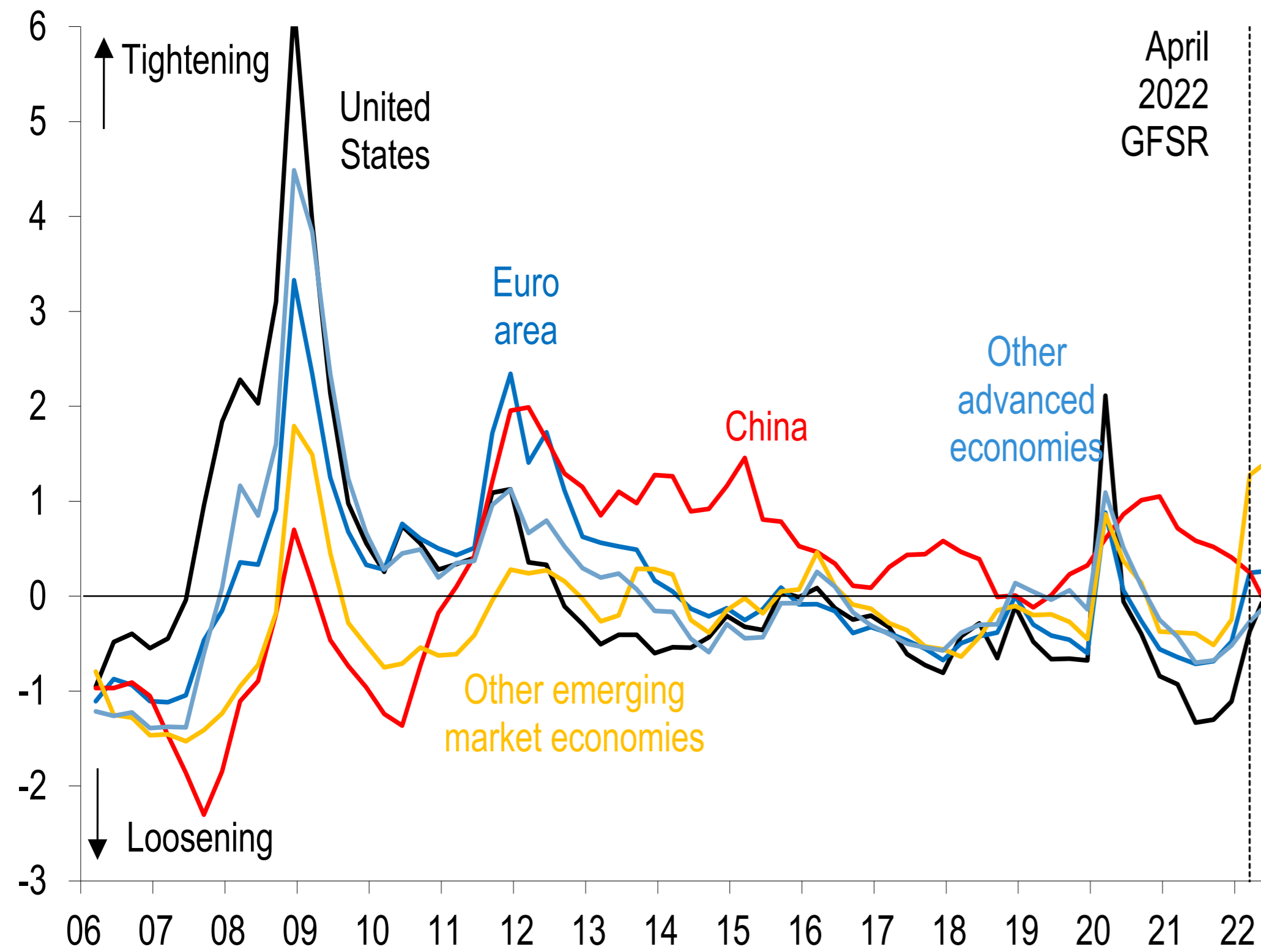


Effects of Easing Financial Conditions on GDP Growth at the 10th Percentile
(Percentage Points)

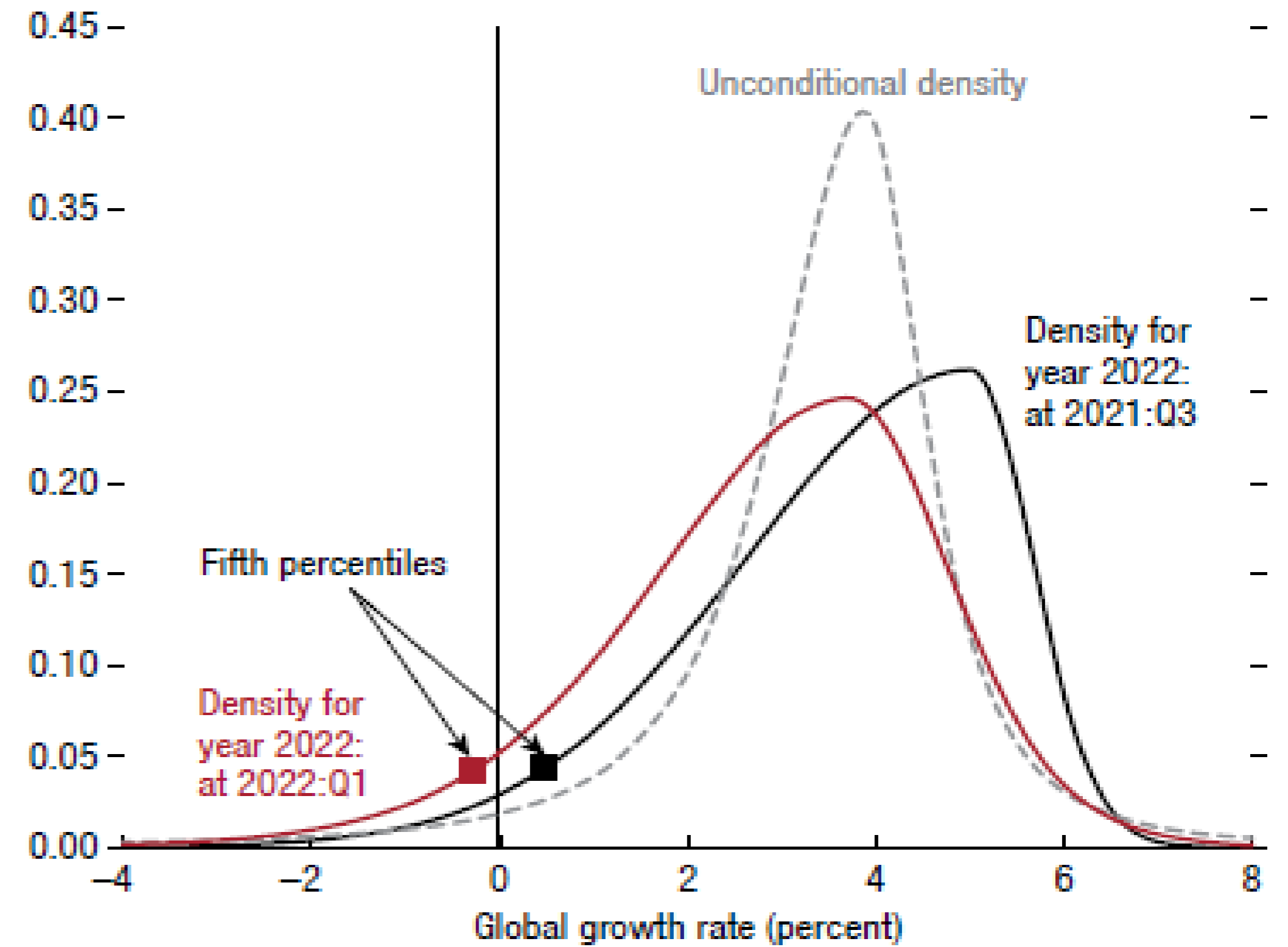


Tightening of Financial Conditions and Downside Risks to Growth

Global Financial Conditions
(Standard deviations from the mean)



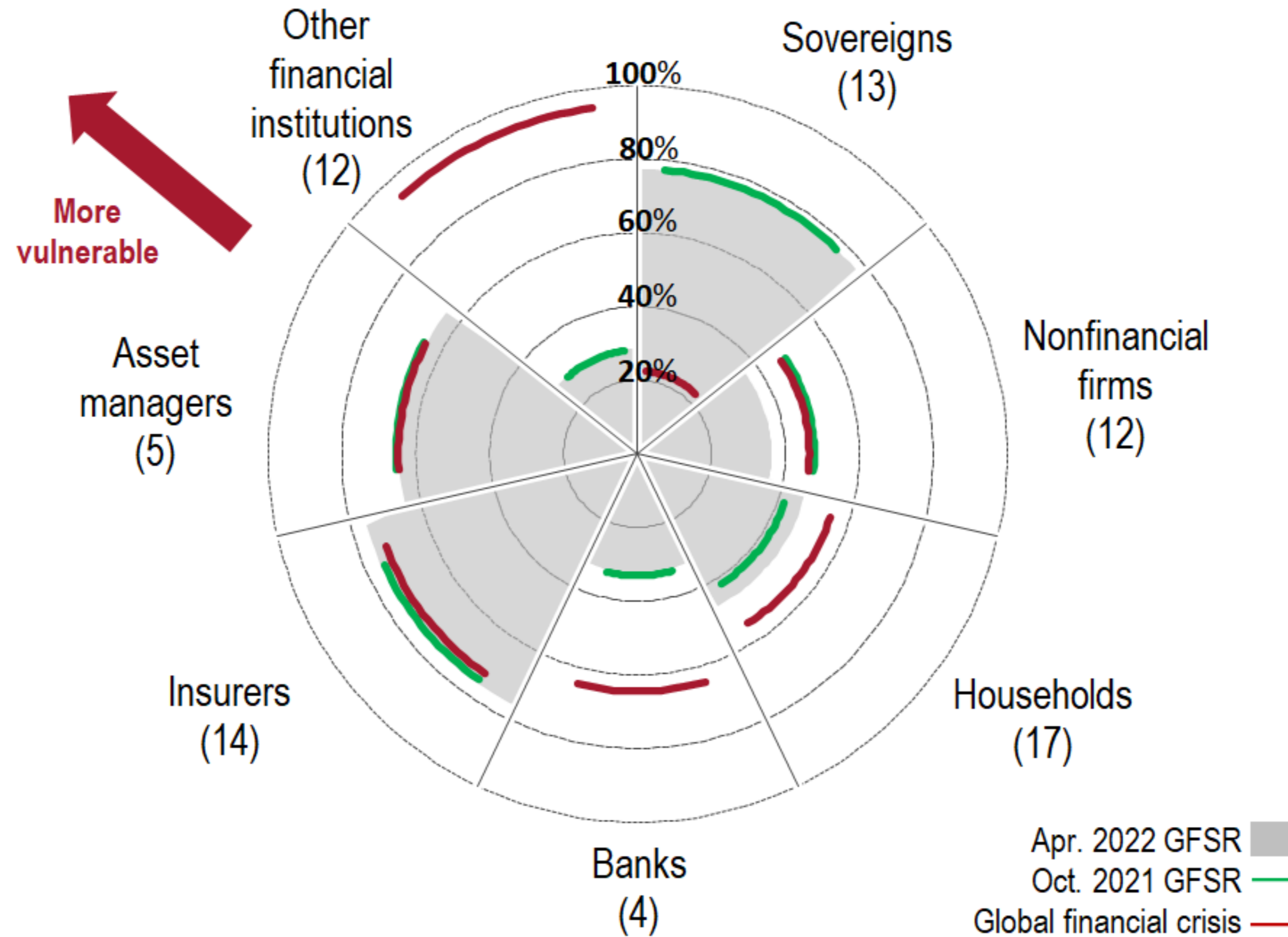
Near-Term Growth Forecasts Densities
(Probability density)



Latest Vintage of Financial Vulnerabilities by Sector and Region

	Sovereigns		Nonfinancial Firms		Households		Banks		Insurers		Asset Managers		Other Financial Institutions	
	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022	Oct. 2021	Apr. 2022
Advanced Economies														
United States	Red	Red	Light Green	Dark Green	Grey	Grey	Dark Green	Dark Green	Red	Red	Light Pink	Light Pink	Grey	Light Green
Euro area	Red	Red	Light Pink	Grey	Light Green	Light Green	Light Green	Light Green	Grey	Grey	Grey	Light Green	Grey	Grey
Other advanced	Red	Red	Light Pink	Light Green	Red	Red	Dark Green	Dark Green	Red	Red	Grey	Grey	Grey	Grey
Emerging Market Economies														
China	Light Pink	Light Pink	Red	Red	Red	Red	Red	Red	Light Pink	Light Pink	Red	Red	Light Green	Light Green
Other emerging	Red	Red	Red	Light Pink	Red	Red	Light Pink	Light Pink	Grey	Grey	Light Green	Light Green	Light Pink	Light Pink

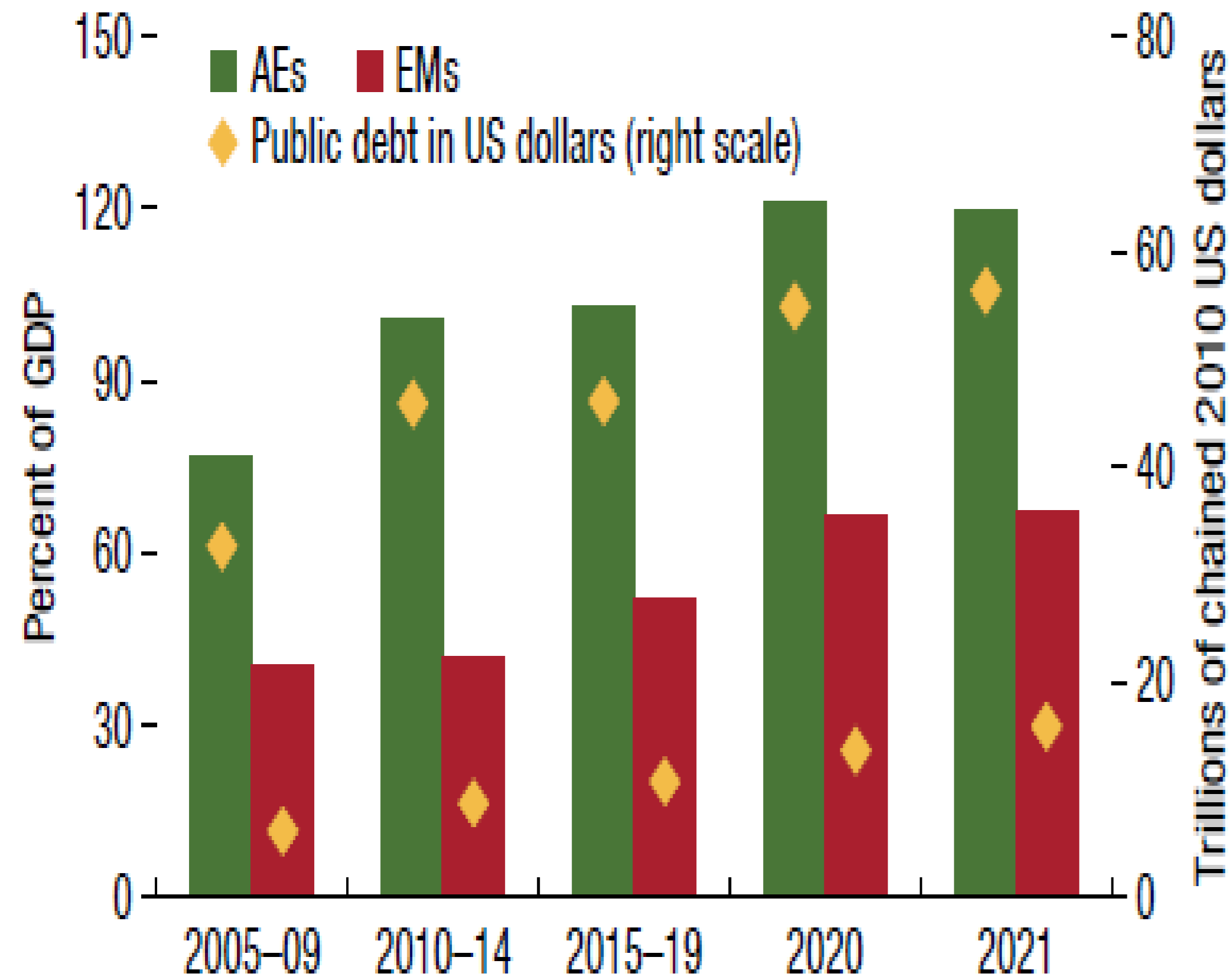
Share of Economies with Elevated Vulnerabilities, by Sector



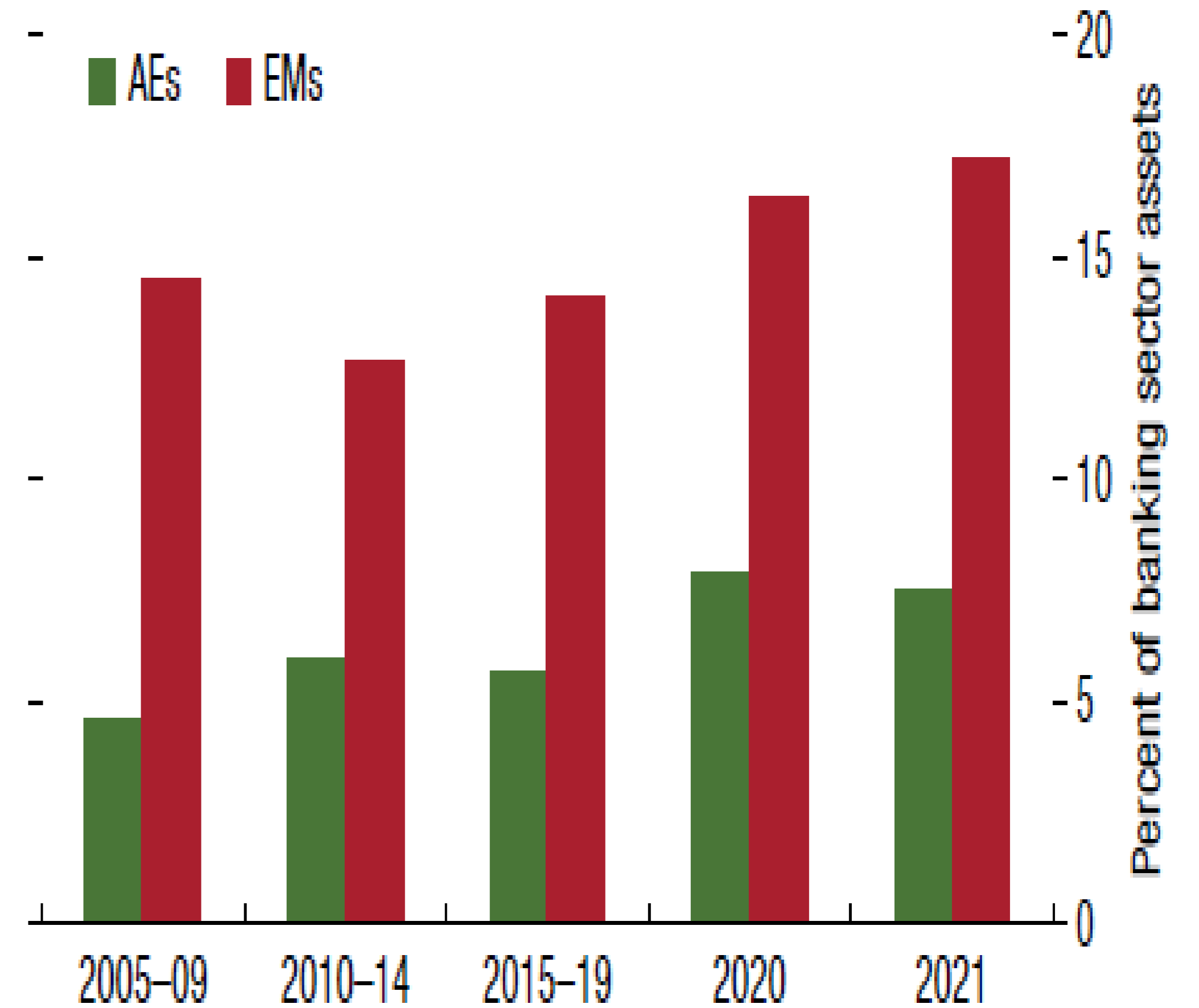
Percent of countries with high & medium-high vulnerabilities, by GDP [assets for banks]; number of countries in paratheses.

A Deepening Sovereign-Bank Nexus in EMs

Public Debt (Percent)

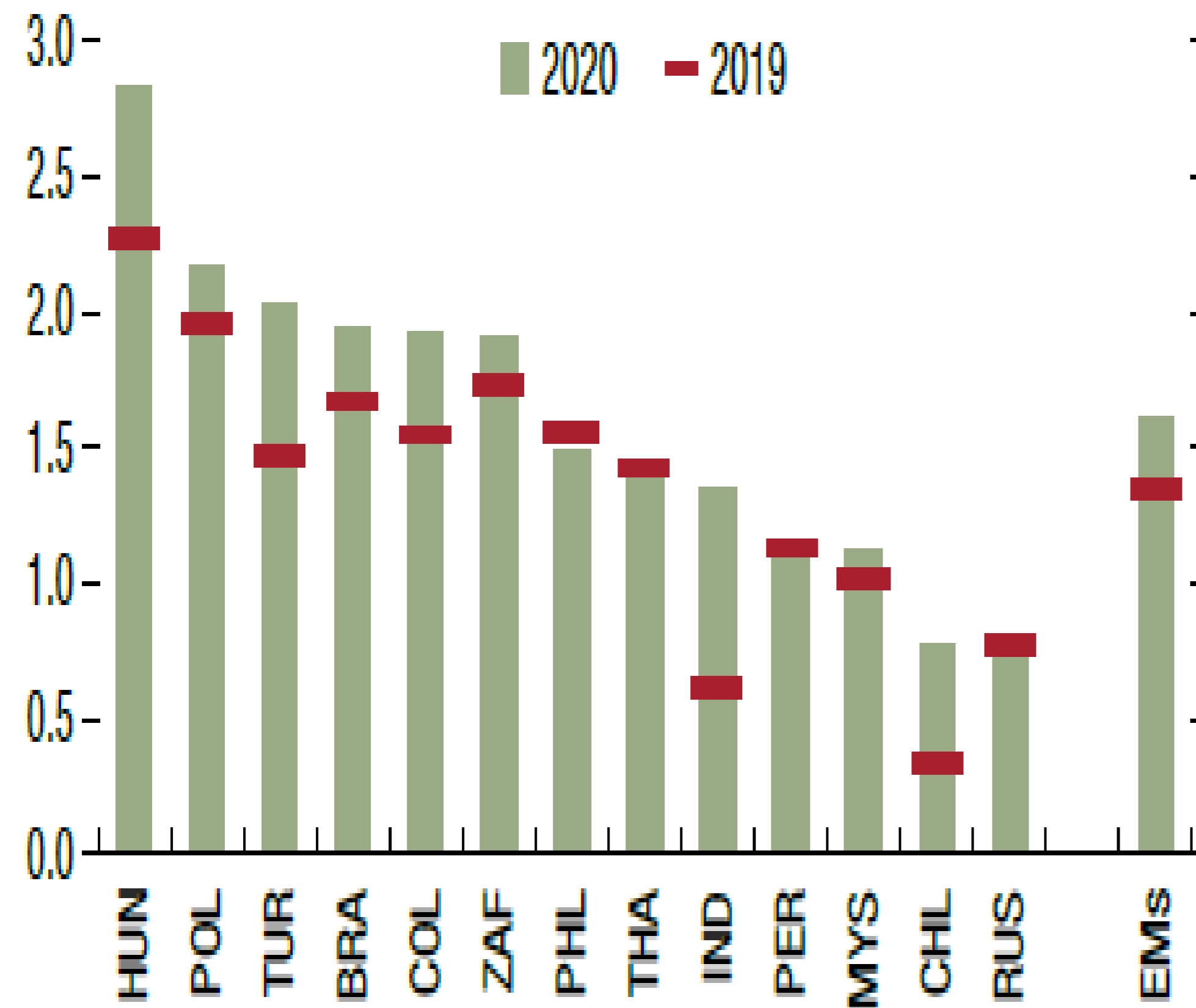


Banks' Domestic Sovereign Debt Exposure (Percent)

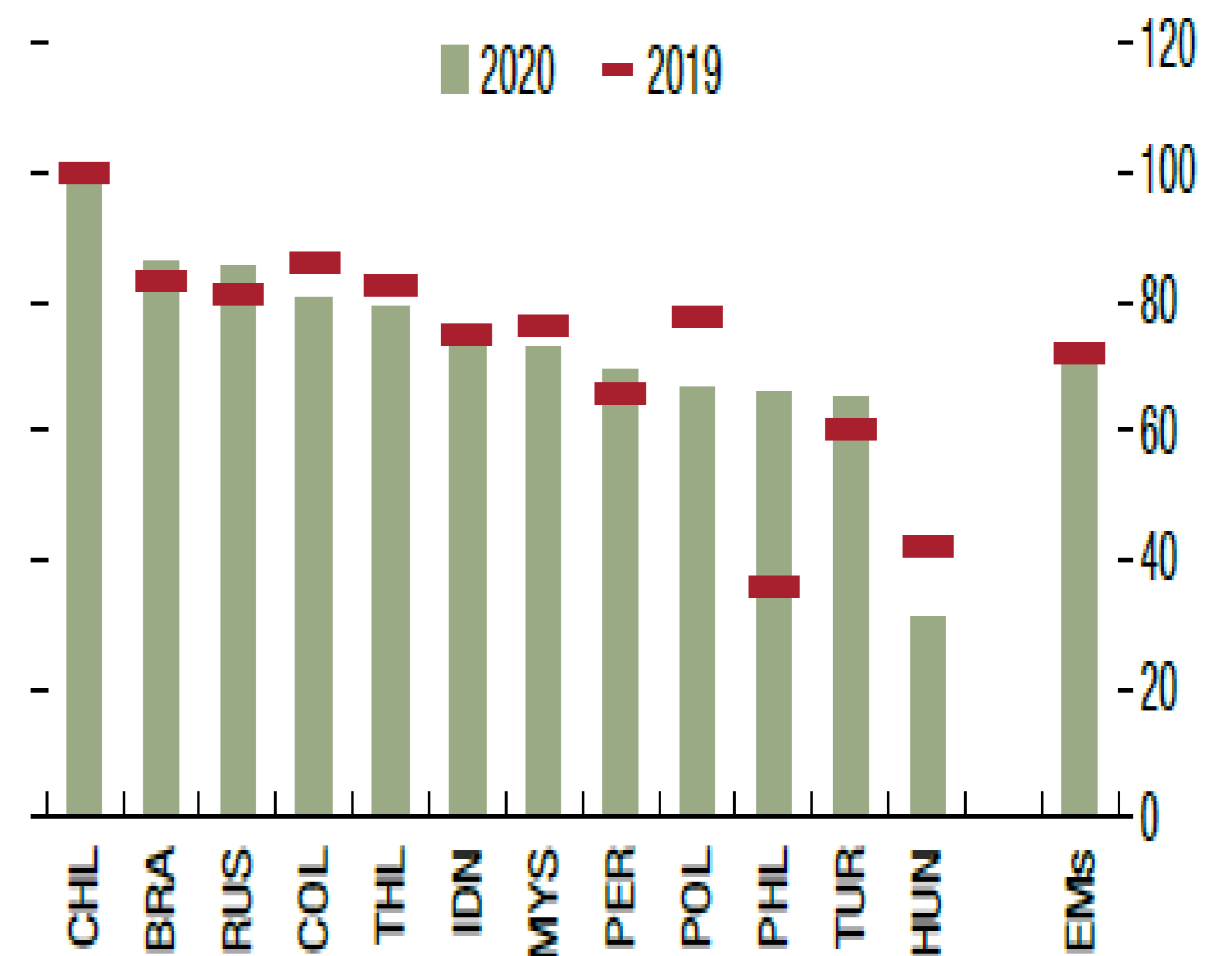


A Deepening Sovereign-Bank Nexus in EMs (cont'd)

Ratio of Local Currency Sovereign Bond Holdings to CET1 Capital

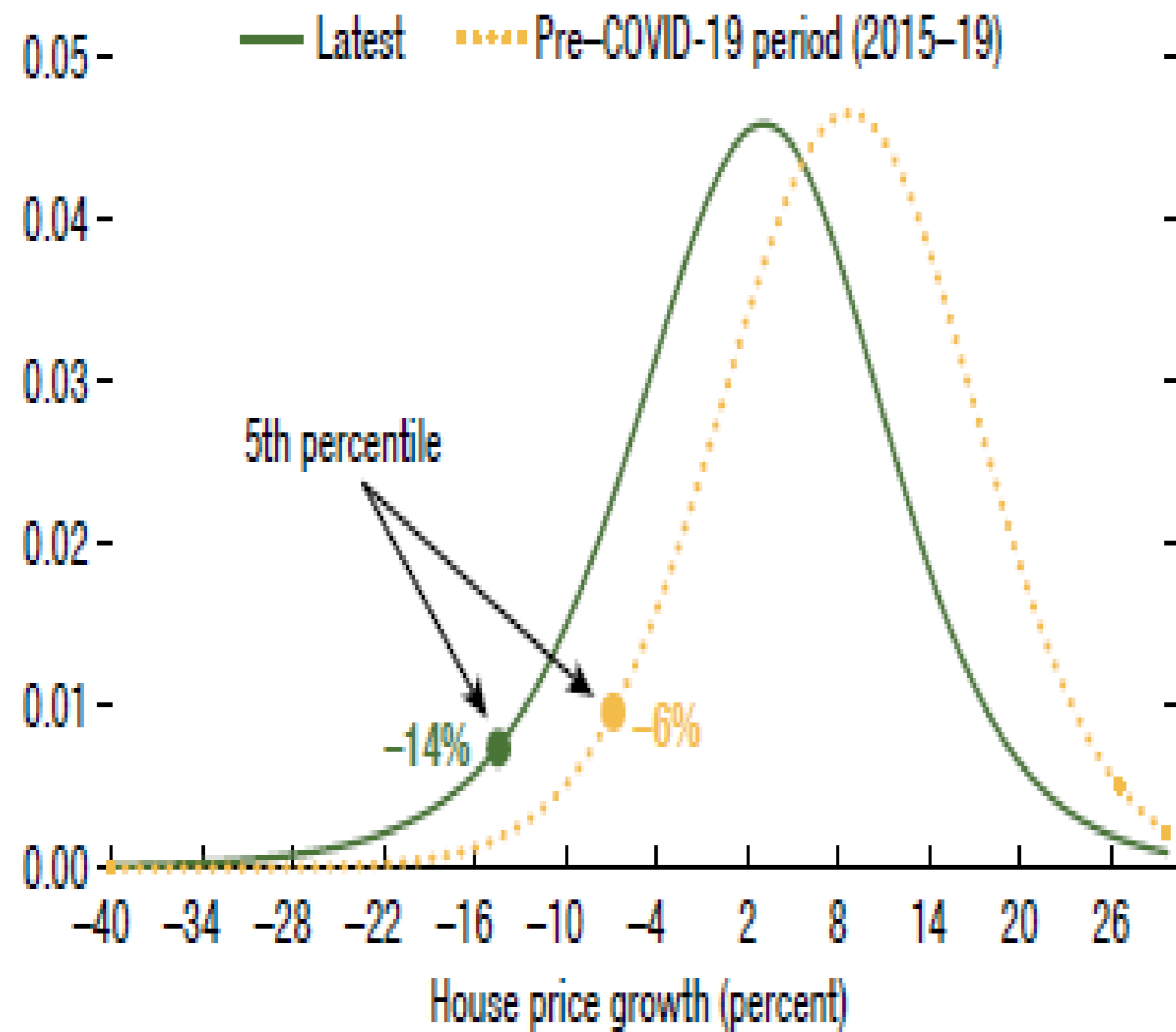


Share of Mark-to-Market Sovereign Bonds

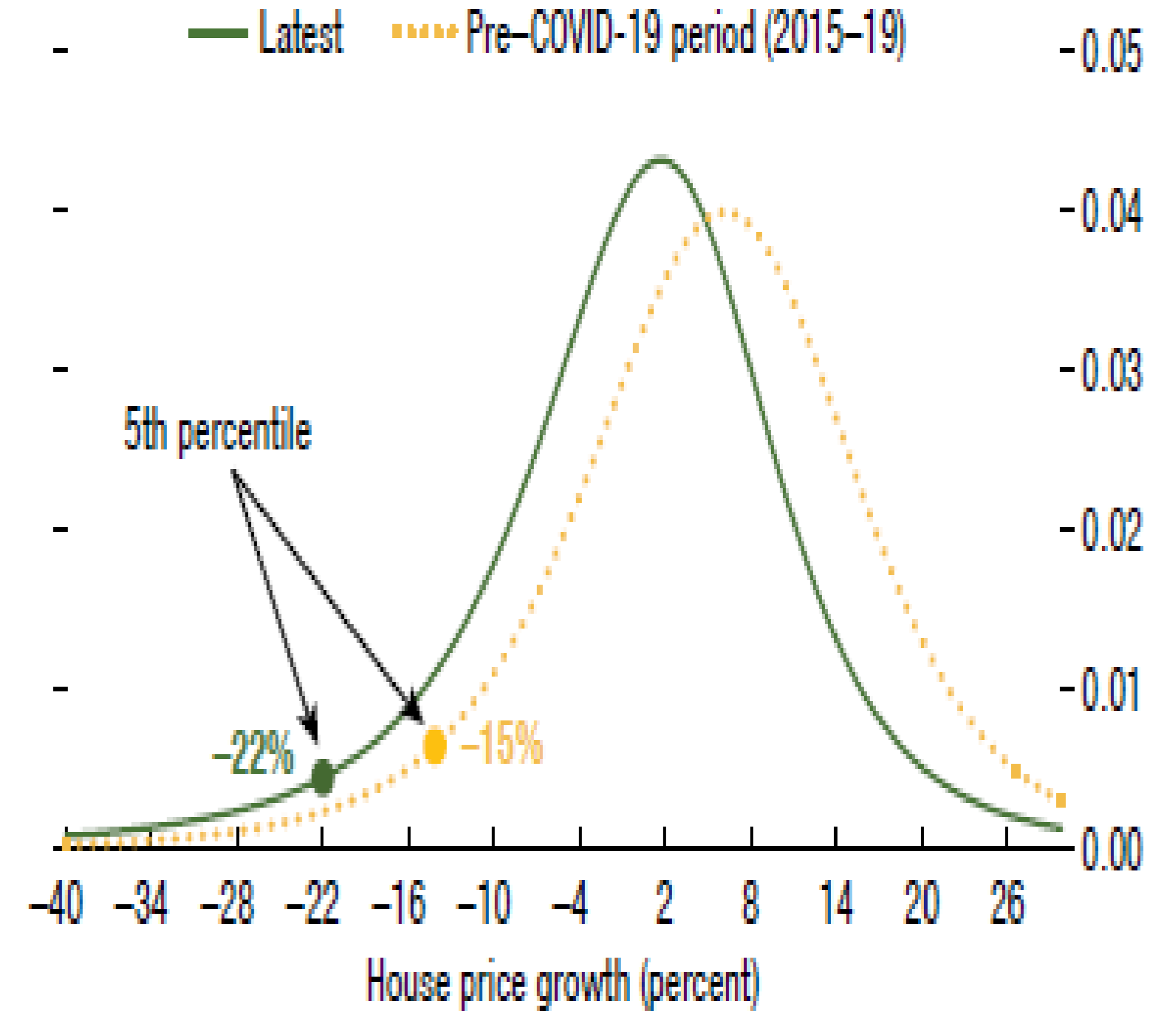


Downside Risks to House Prices

Advanced Economies: House-Prices-at-Risk
(Probability density)

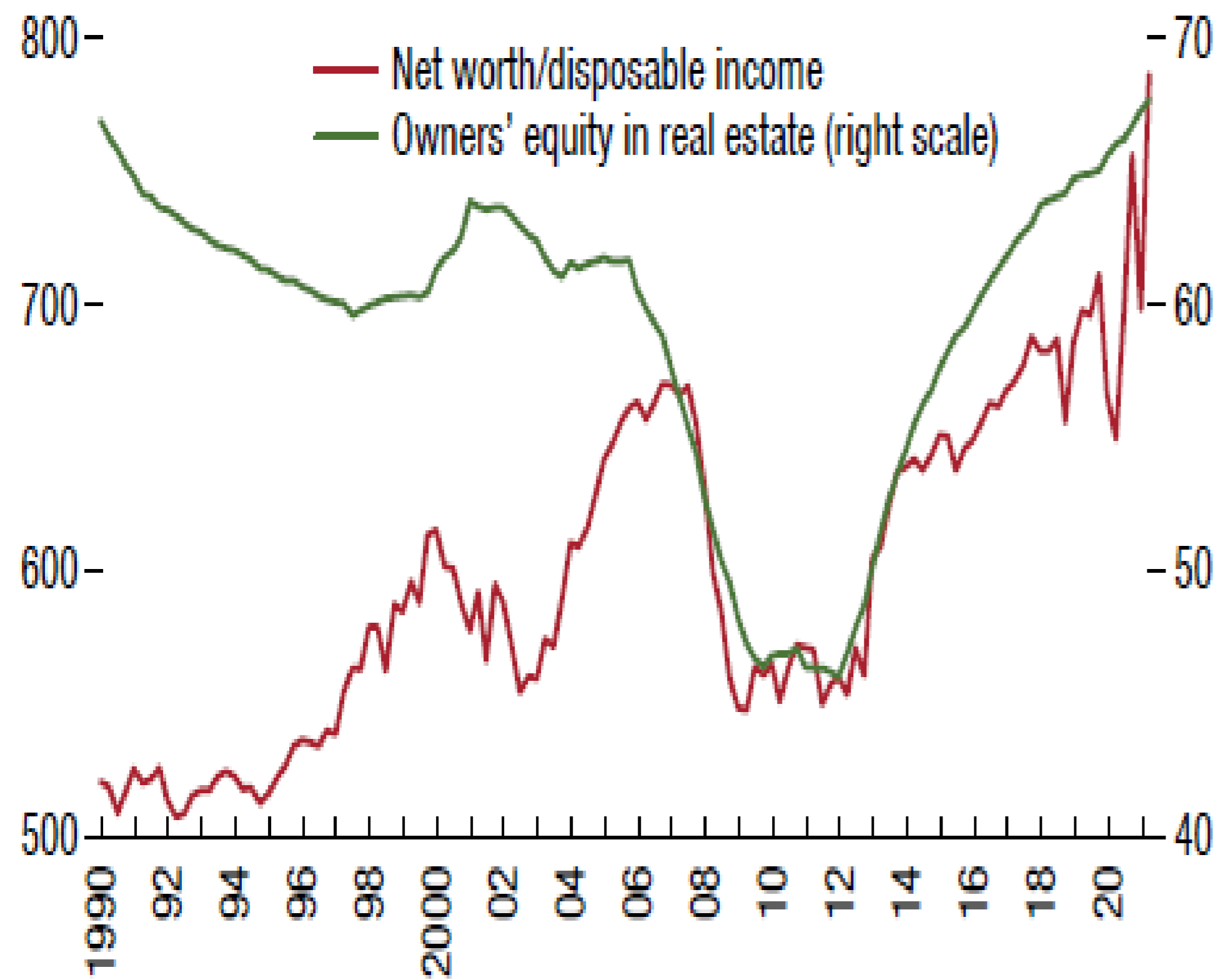


Emerging Markets: House-Prices-at-Risk
(Probability density)

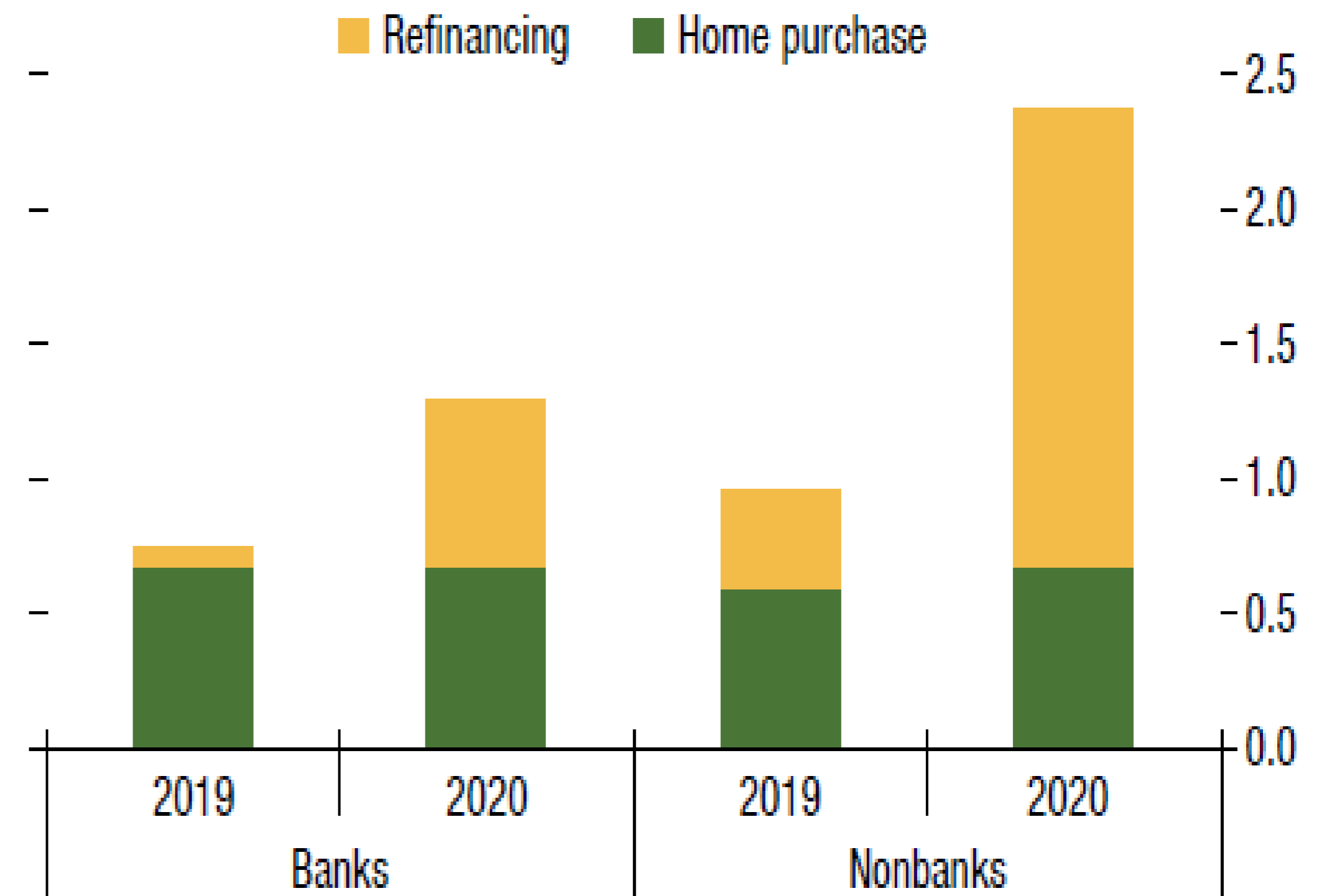


US Housing Sector Risks

US Household Balance Sheets (Percent)



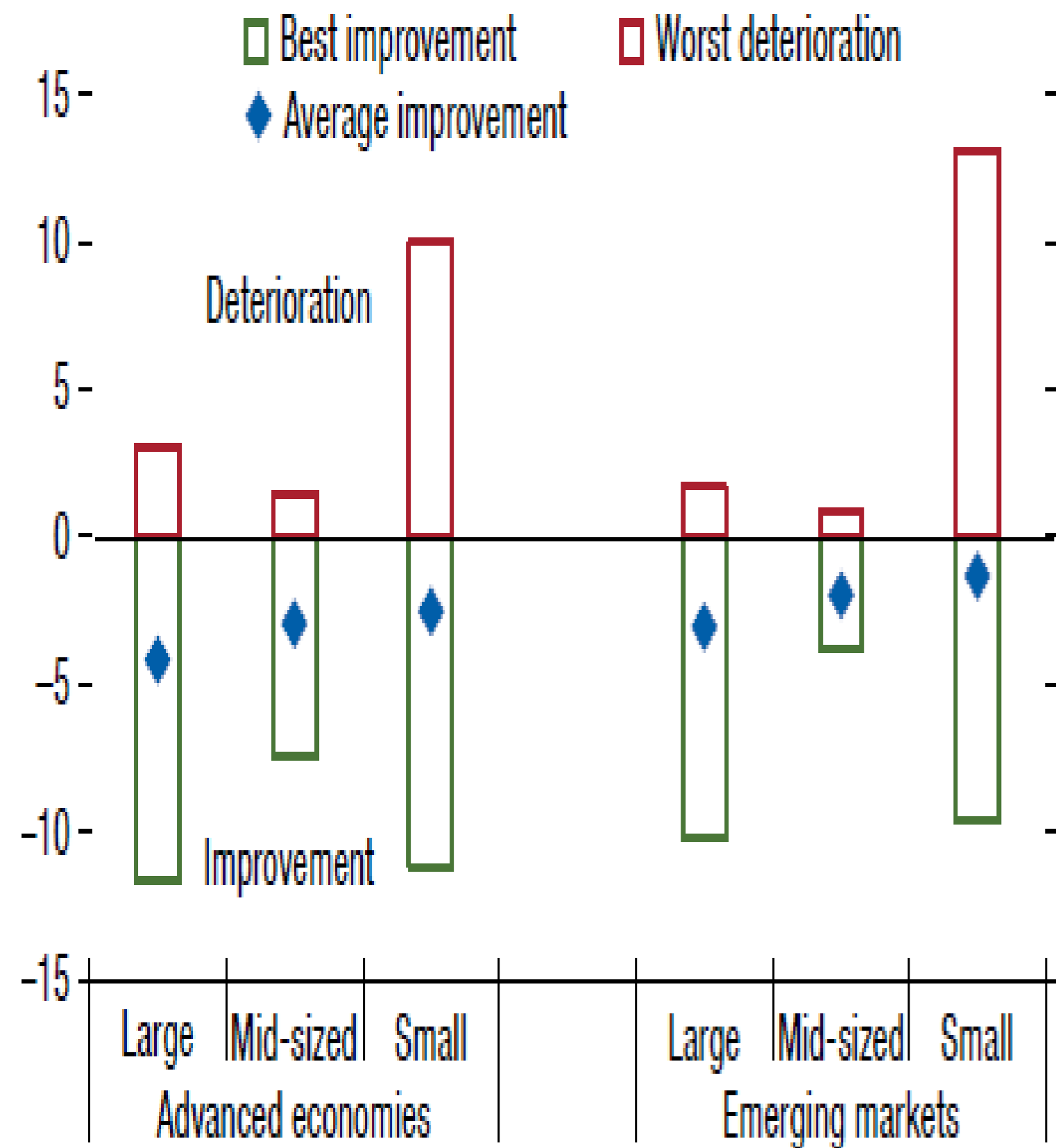
US Total Loan Origination Volume, by Banks and Nonbanks (USD trillion)



Vulnerabilities in the Corporate Sector

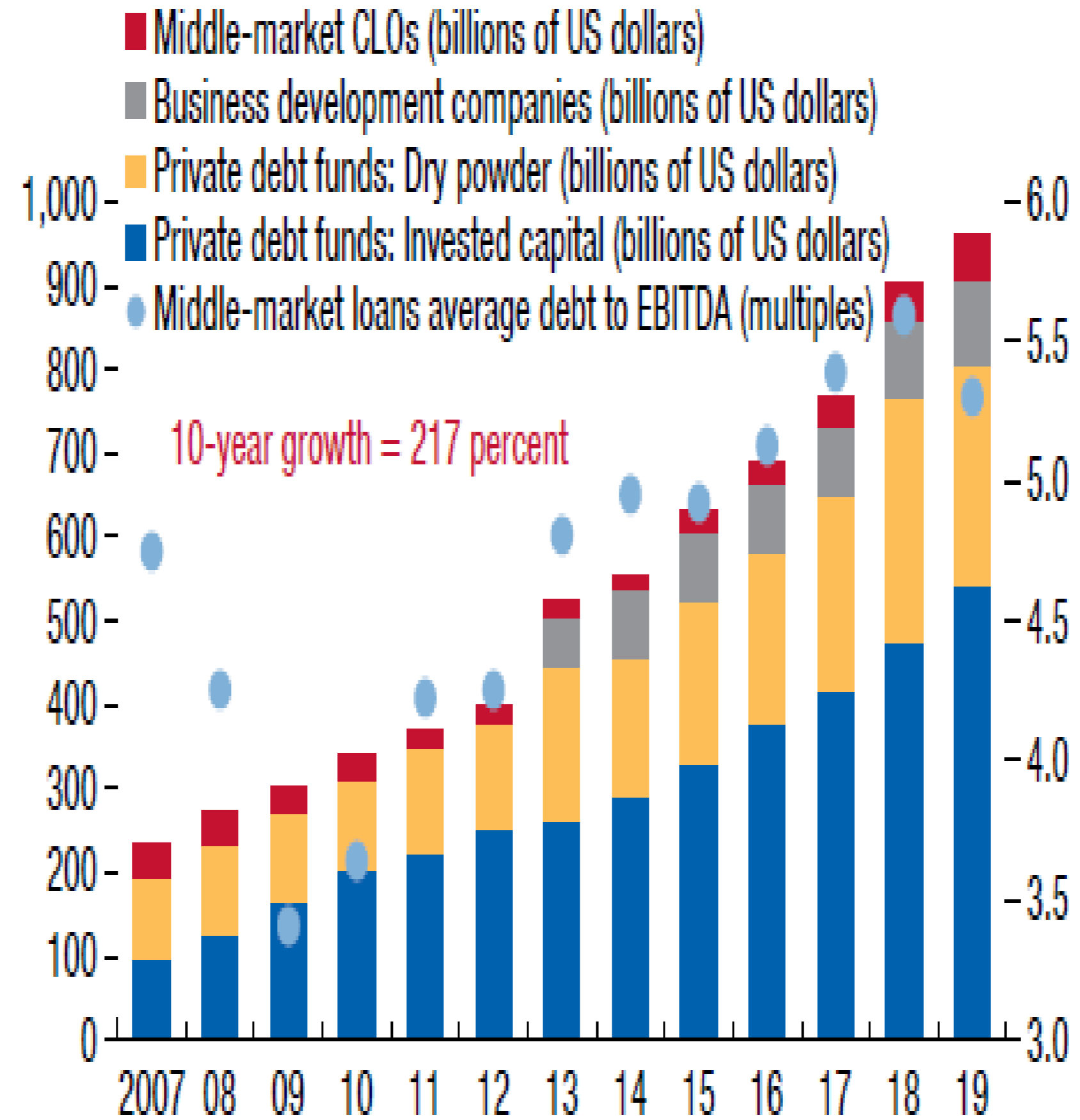
Change in Share of Firms with High Solvency Risk

(2020:Q2 vs 2021: Q1; percentage points)



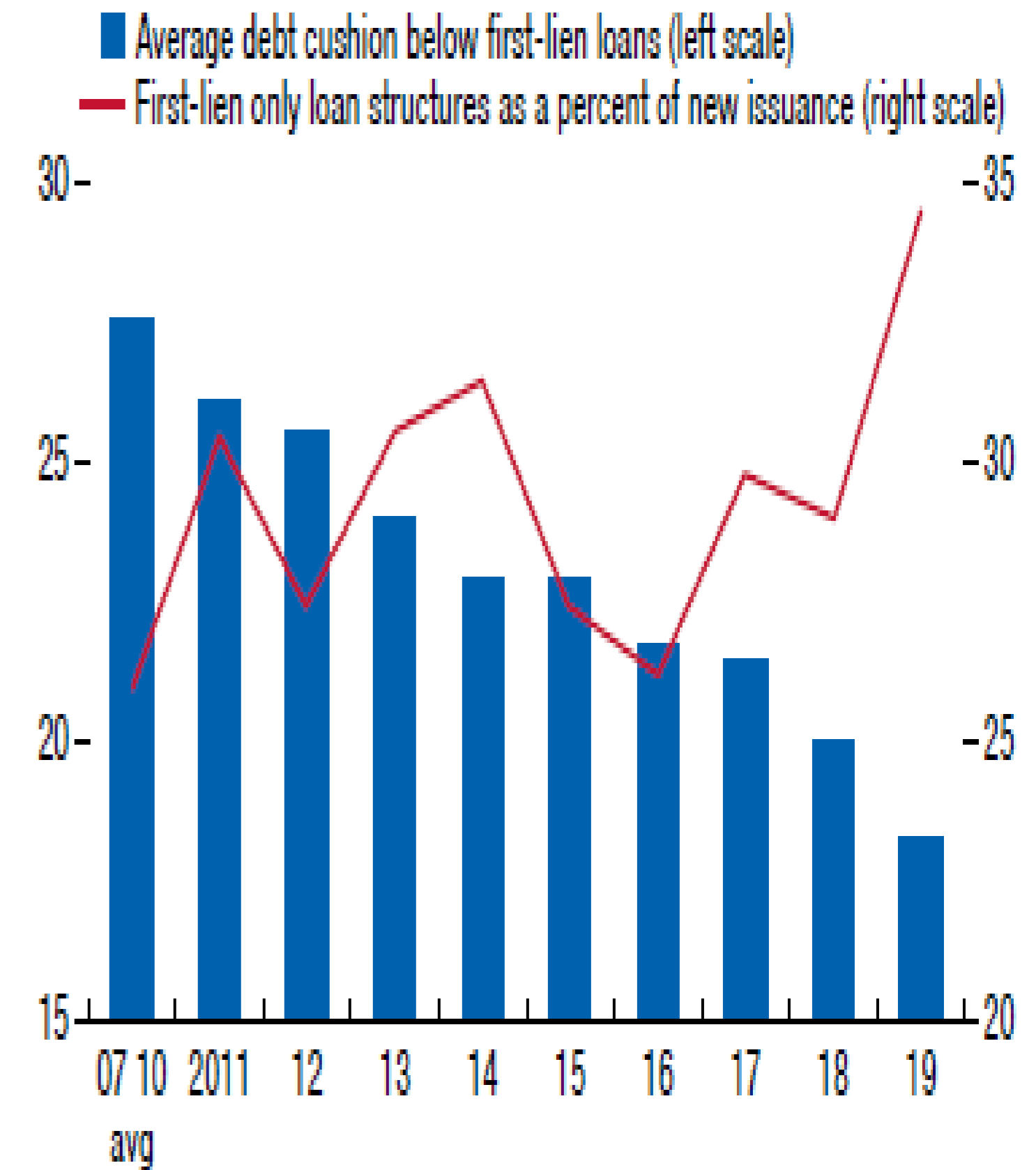
Private Credit AUM and Leverage

(Billions of USD, LHS; multiples, RHS)



New Issue LL Debt Cushions and First Lien Only Structures

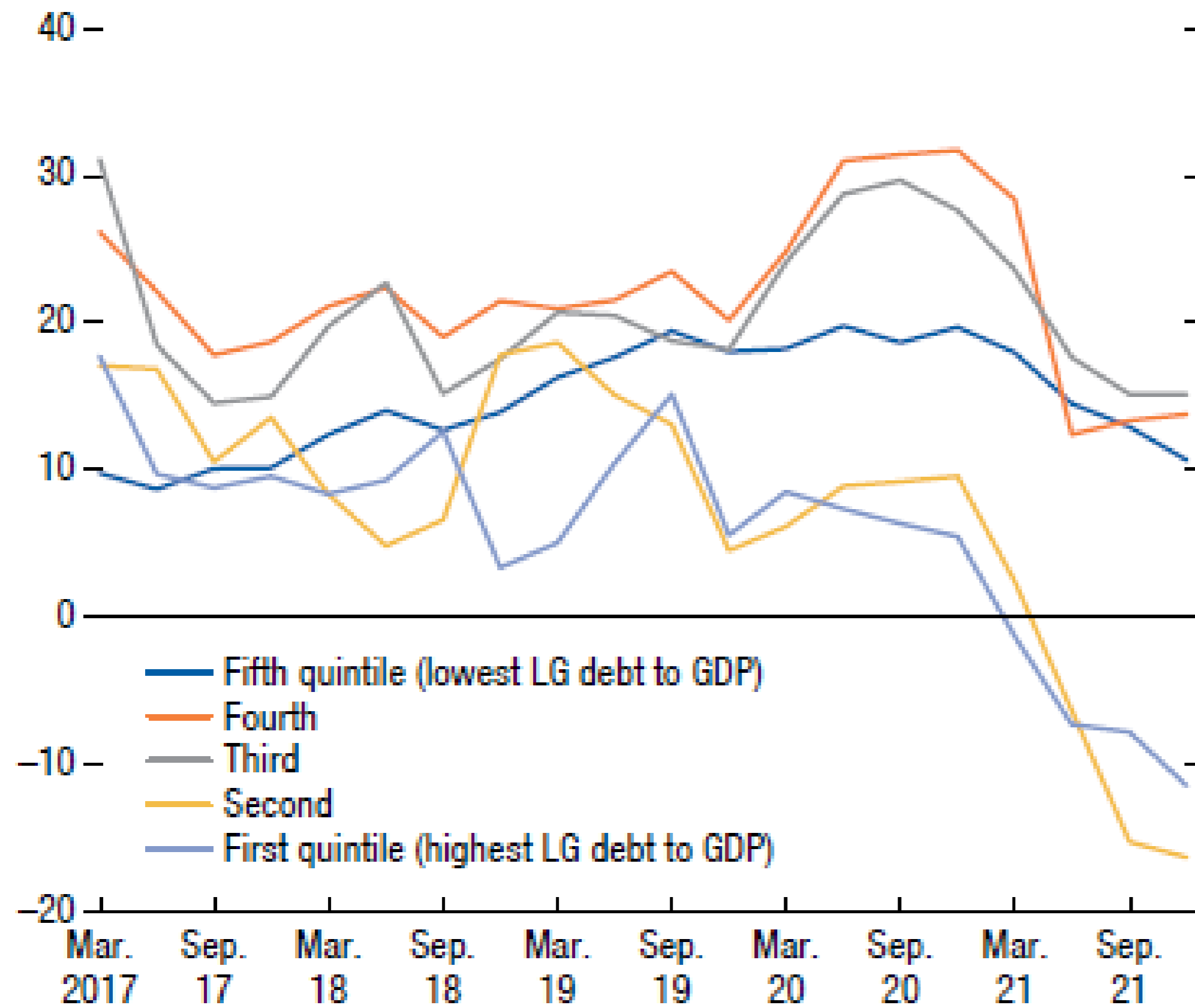
(Percent of new issuance)



China: Vulnerabilities Stemming from Real Estate Sector

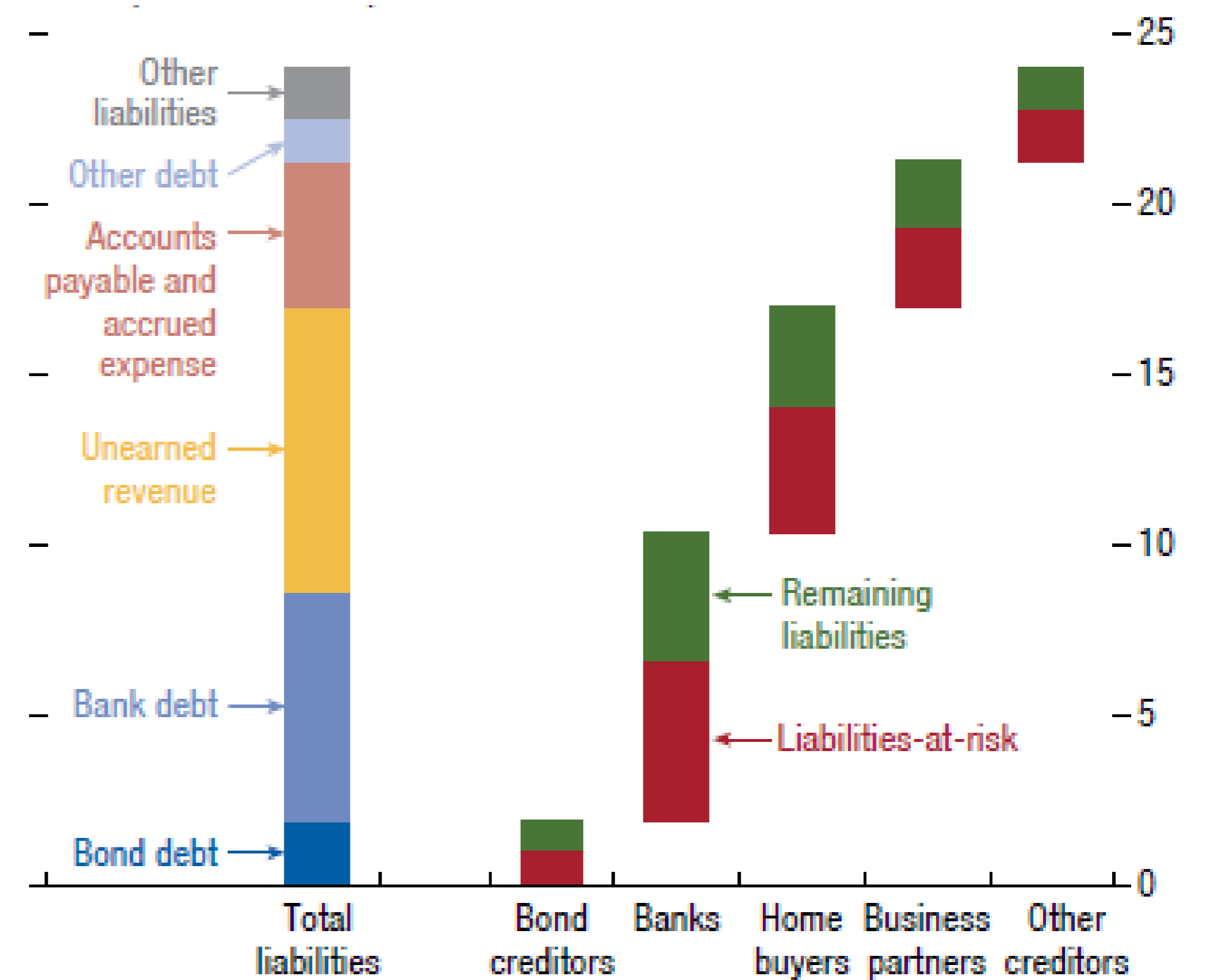
Growth in Outstanding Corporate Bonds

(Percent, by quintile of home province government debt)



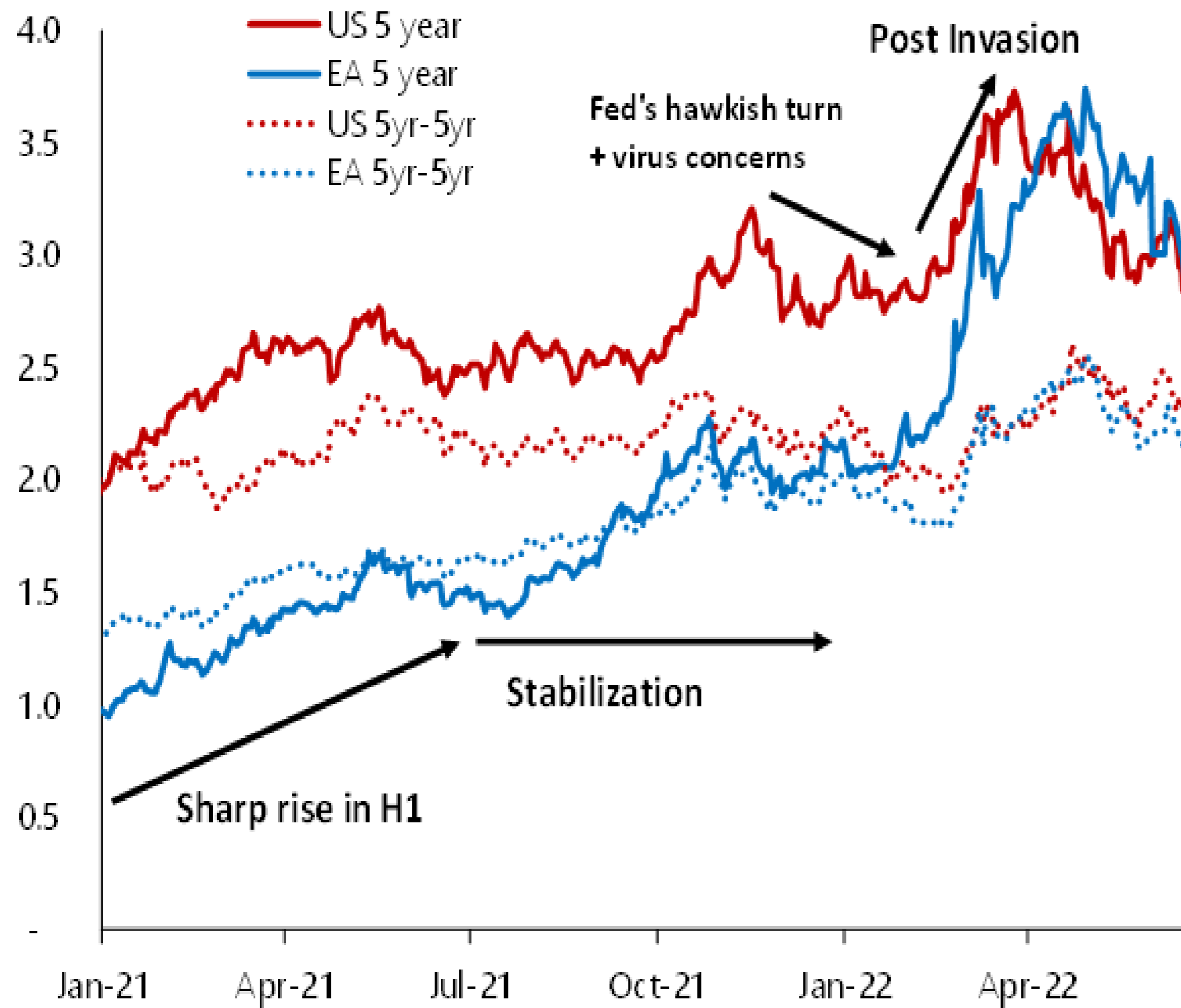
Liabilities and Financing of Real Estate Firms

(Percent of GDP)

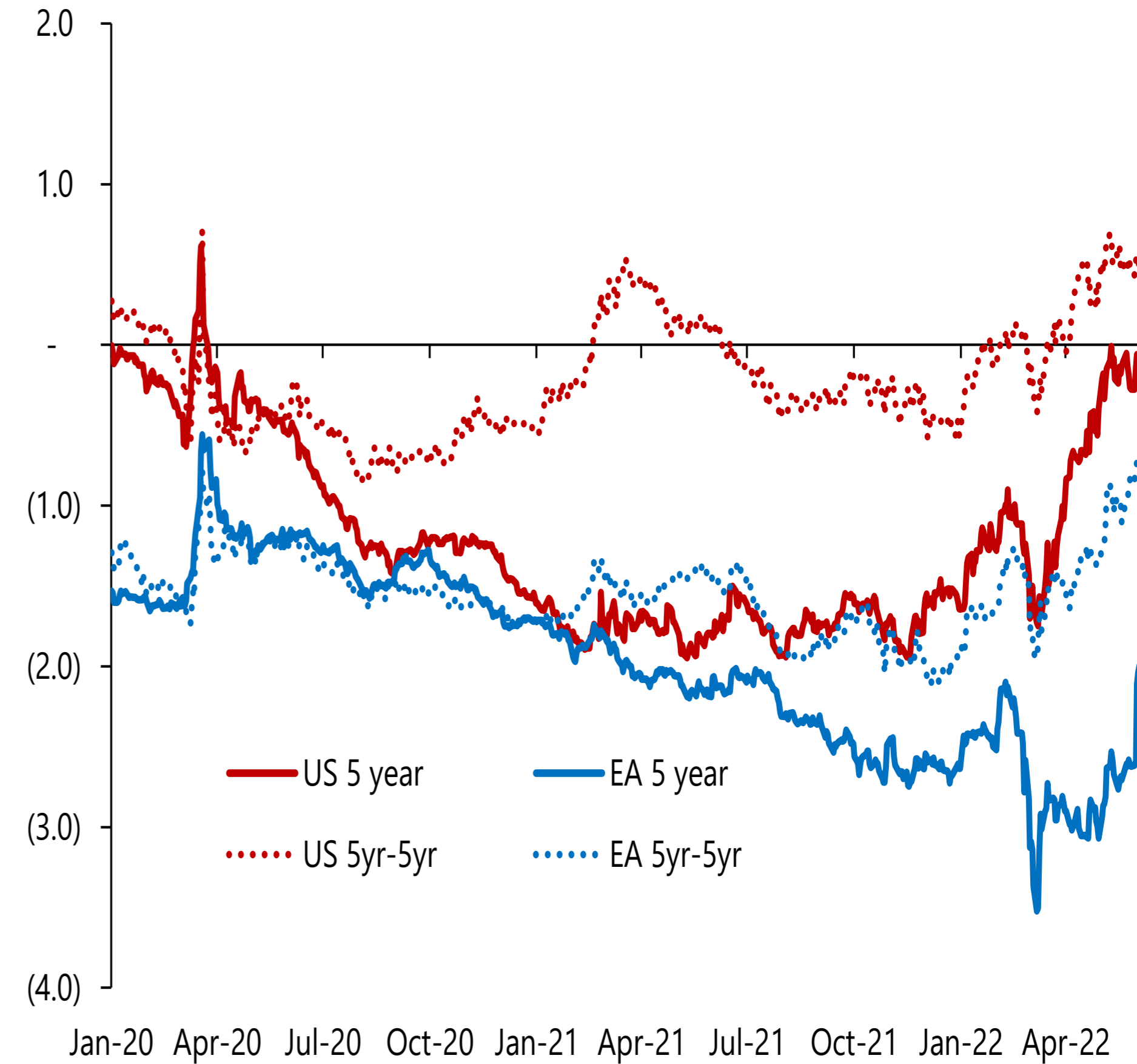


Evolution of Market-based Inflation Expectations and Real Rates

Inflation Breakevens (Percent)

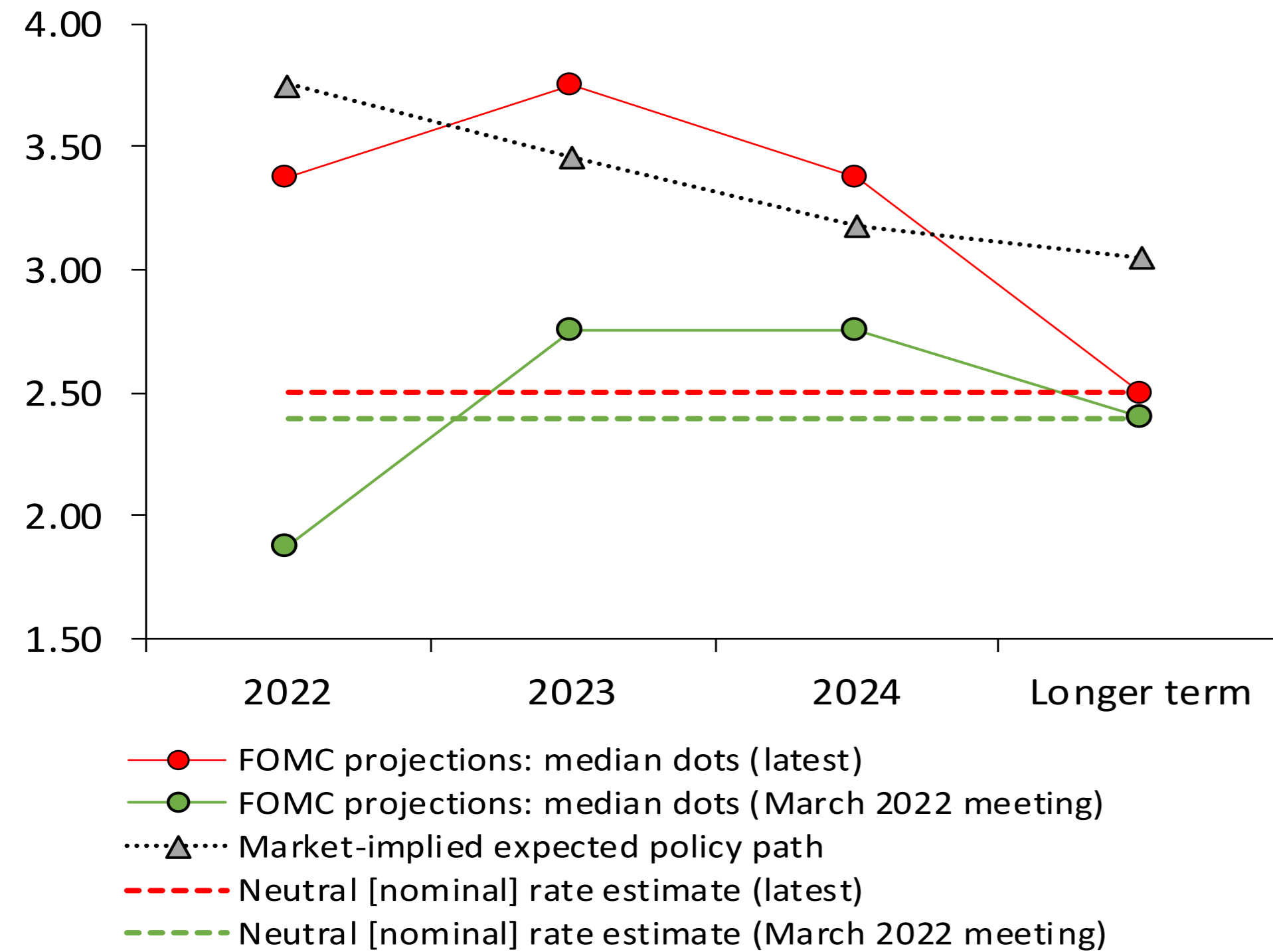


Market-Implied Real Rates (Percent)

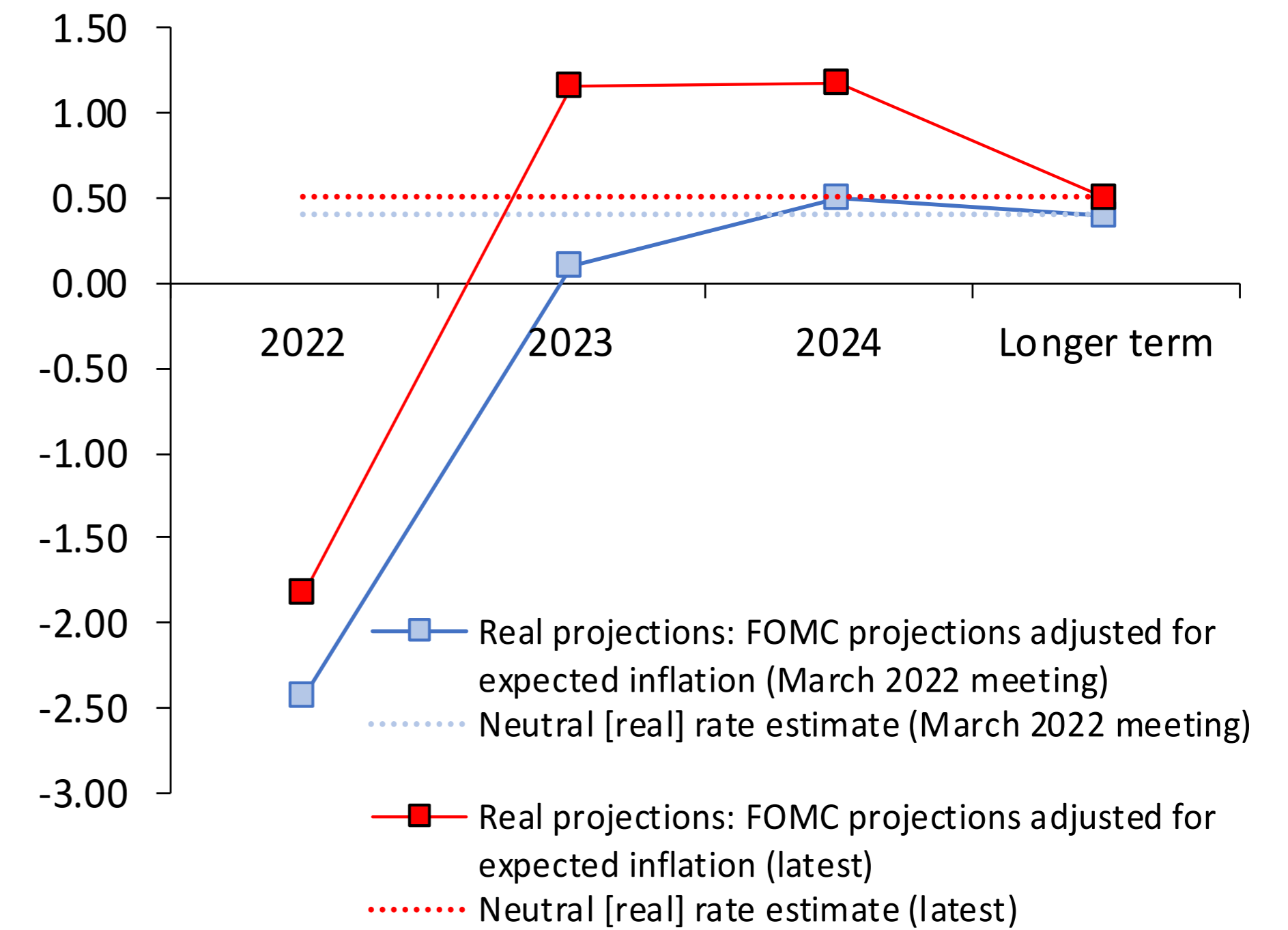


FOMC Assessment of Appropriate Monetary Policy

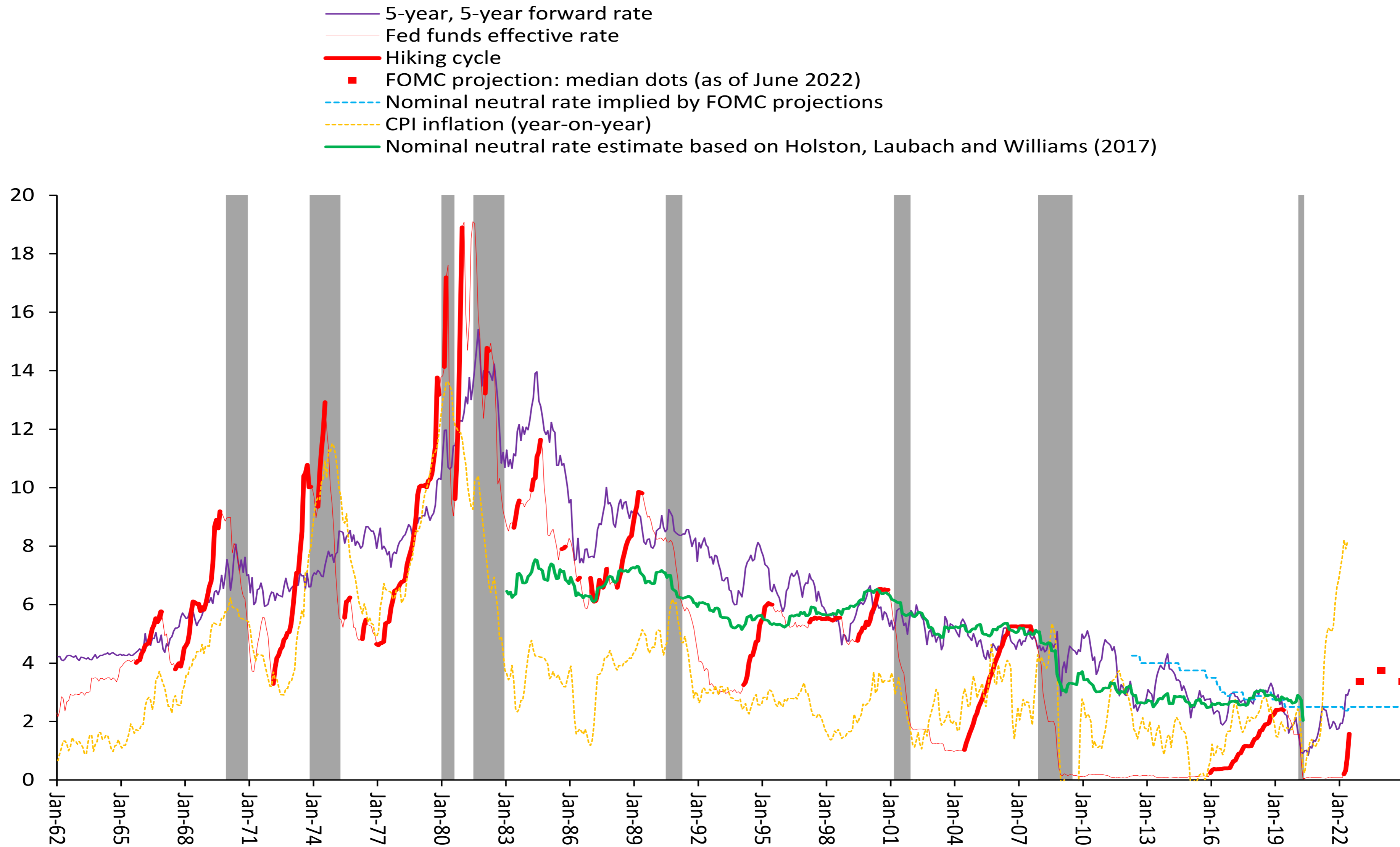
US Policy Rate Projections: Nominal Rates (Percent)



US Policy Rate Projections: Real Rates (Percent)



US Monetary Policy Tightening Cycles



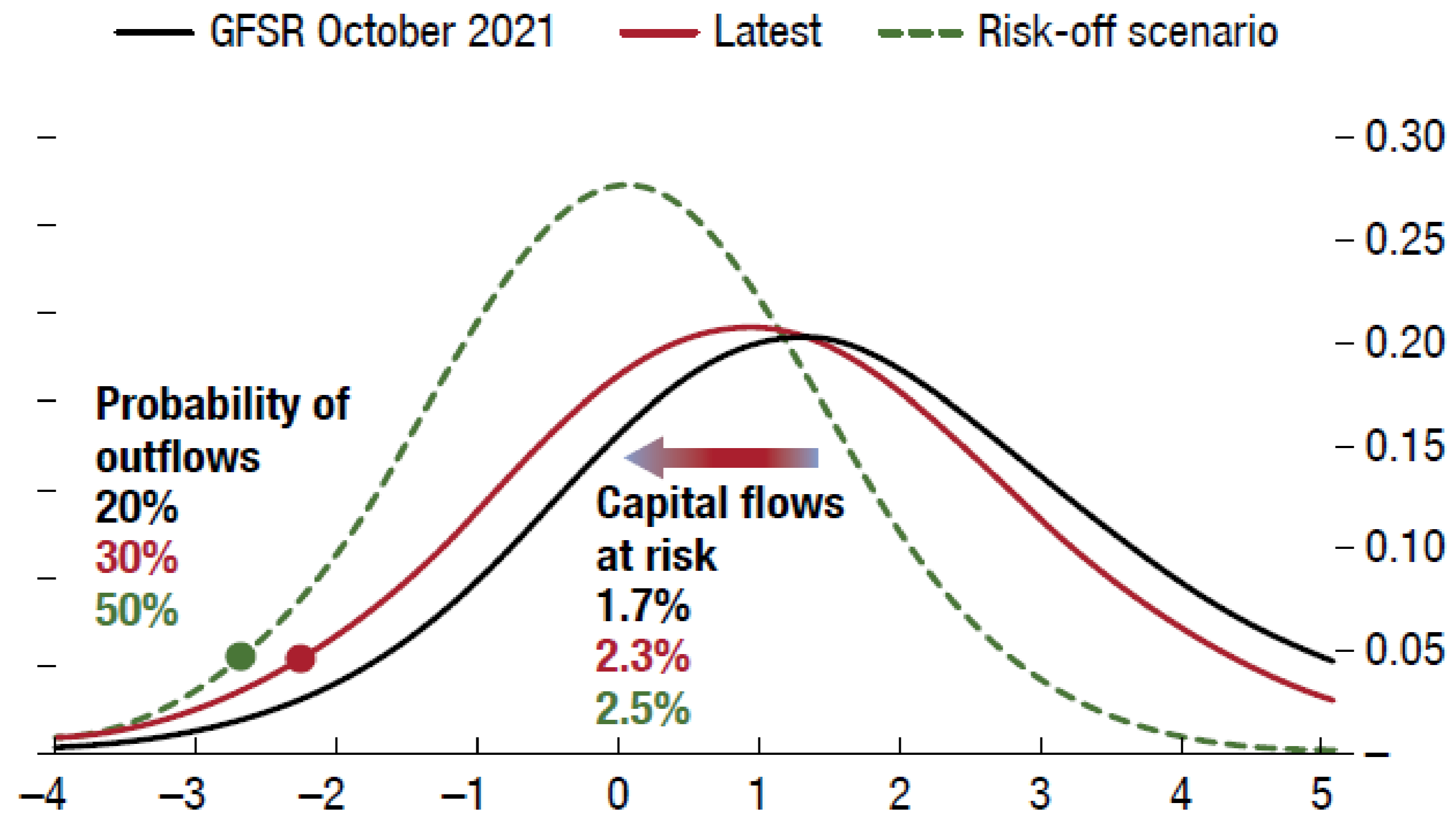
Asset Price Moves

Last updated: 6/24/22 4:20 PM	Level		Change				YTD	Since 23-Feb-22
	Last 12m	Latest	1 Day	7 Days	30 Days	12 M		
Equities			%				%	%
United States		3910	3.1	7	-1	-8	-18	-7
Europe		3533	2.8	3	-3	-14	-18	-11
Japan		26492	1.2	2	-1	-9	-8	0
China		4395	1.2	2	10	-16	-11	-5
Asia Ex Japan		70	2.4	4	3	-25	-15	-11
Emerging Markets		41	2.4	3	0	-26	-17	-14
Interest Rates			basis points					
US 10y Yield		3.13	4.5	-9	38	164	162	114
Germany 10y Yield		1.44	1.4	-22	48	163	162	121
Japan 10y Yield		0.23	-0.6	0	-1	17	16	3
UK 10y Yield		2.30	-1.4	-20	42	156	133	82
Credit Spreads			basis points					
US Investment Grade		169	-2.6	4	0	80	57	26
US High Yield		530	-14.6	8	23	213	192	123
Europe IG		109	-4.0	-3	12	63	62	38
Europe HY		534	-24.7	-30	55	306	292	182
Exchange Rates			%					
USD / Majors		104.12	-0.3	0	2	13	9	8
EUR/USD		1.06	0.3	1	-2	-12	-7	-7
USD / JPY		135.2	0.2	0	7	22	17	18
EM/USD		51.7	0.1	0	-3	-10	-2	-3
Commodities			%					
Brent Crude Oil (\$/barrel)		113	2.8	0	2	64	50	26
Industrials Metals (index)		158	-2.6	-7	-14	2	-9	-16
Agriculture (index)		69	0.2	-8	-10	27	14	-1
Implied Volatility			%					
VIX Index (% change in pp)		27.2	-1.9	-5.8	-2.3	11.2	9.9	-3.9
US 10y Swaption Volatility		119.8	-1.2	-7.3	9.1	54.8	40.8	25.5
Global FX Volatility		10.9	-0.3	-0.7	0.5	4.3	3.5	3.5
EA Sovereign Spreads			10-Year spread vs. Germany (bps)					
Greece		234	-0.6	-3	-32	131	82	-6
Italy		202	6.3	8	1	97	67	31
Portugal		108	1.9	4	-8	48	44	16
Spain		111	2.2	3	-1	49	37	8

Colors denote **tightening/easing** financial conditions for observations greater than ± 1.5 standard deviations.
Data source: Bloomberg.

Risk of Spillovers to EMs

Capital Flows-at-Risk
(Probability density)



Availability and Use of Macroprudential Policy Tools

Sectors	Balance Sheet Vulnerabilities							
	Leverage ¹	Liquidity ²	Maturity ³	FX Mismatch ⁴	Leverage ¹	Liquidity ²	Maturity ³	FX Mismatch ⁴
	Countries that Have Relevant Prudential Tools (as percent of all countries)				Countries with Elevated Vulnerabilities and Relevant Prudential Tools (as percent of all countries with elevated vulnerabilities)			
Banks	97	97	21	45	100	100	24	38
Nonbank financials								
Insurers	89	84	0	79	33	50	NA	NA
Other financials	55	62	3	0	50	71	0	NA
Nonfinancial sector <i>(borrower-based tools applied through banks)</i>								
Corporations	69	0	3	17	78	0	0	NA
Households	72	0	24	10	80	NA	NA	NA

Net Tightening of Macprudential Policies

