

Evolving global macro-financial and policy environment and its implications for financial regulation and supervision

Ilhyock Shim, Head of Economics for the Americas, BIS Representative Office for the Americas

Asobancaria 24th Risk Congress, Cartagena, Colombia, 22 October 2026

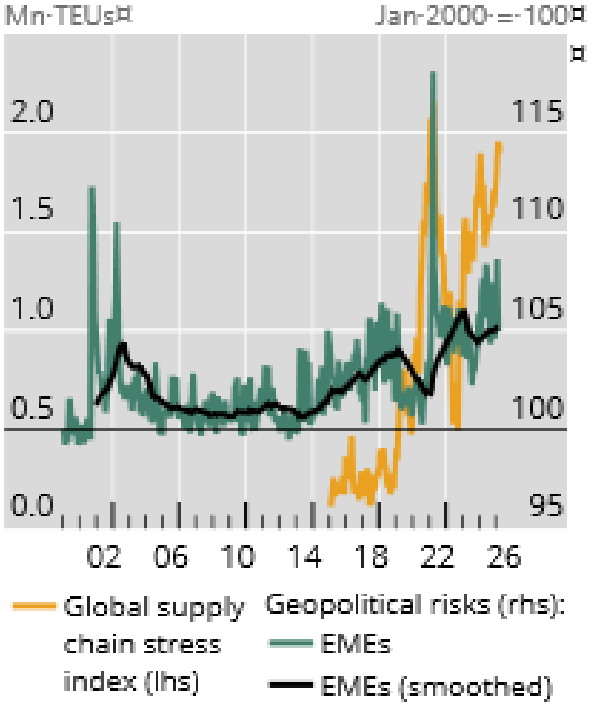
The views in this presentation are those of the presenter and not necessarily those of the Bank for International Settlements.

Outline

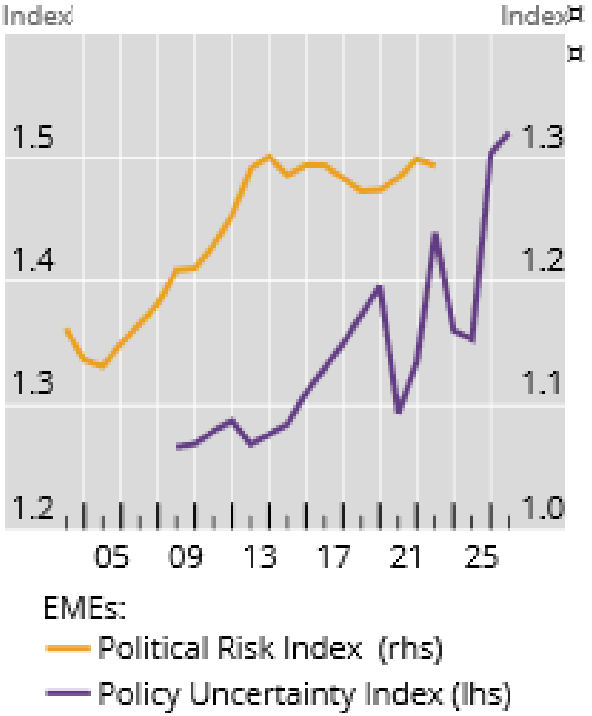
- Evolving global macro-financial and policy environment
  - 2023 failure of SVB and Credit Suisse
  - Trend increase in geopolitical risk, industrial policy, trade policy uncertainty and supply chain stress
    - Merit for regional trade and banking integration?
  - Growing fiscal sustainability concerns
  - Banks' linkages with NBFIs and challenges for banks from NBFIs
  - Technology such as AI and regulation/supervision
- Implications for financial regulation and supervision
  - Strong and modern supervision needs to complement bank regulation
    - Mandates/legal authority, culture/accountability, people/expertise
  - Need to understand the implications of geopolitical risk, industrial policy, trade policy uncertainty, supply chain reconfiguration and fiscal concerns on credit, market, liquidity risk and the regulation and supervision of financial institutions
  - Growing competition with NBFIs requires same risk, same regulation.
  - Adapting RegTech and SupTech to AI development

Rising trends in political risk and industrial policies pose challenges to EMEs

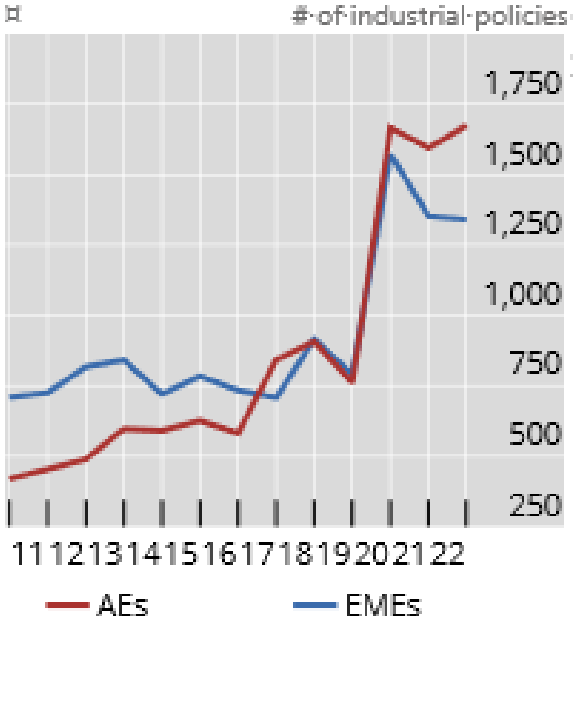
A. Global supply chain stress and geopolitical risk have risen[1]



B. Domestic political risk has also increased[2]



C. Industrial policy surged recently[3]

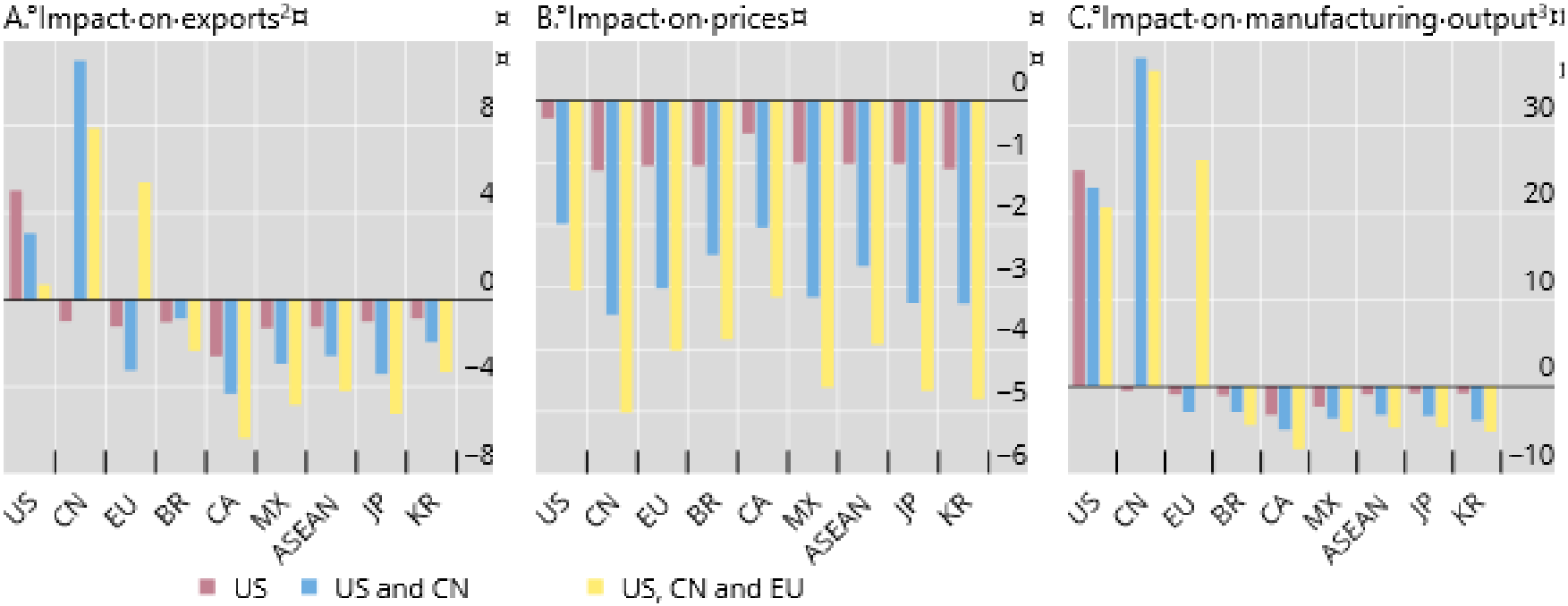


[1] An increase in the geopolitical risk index denotes higher geopolitical risks. Mean figures consider 18 EMEs (AR, BR, CL, CN, CO, HU, ID, IN, MX, MY, PE, PH, PL, SA, TH, TR, VN and ZA). The smoothed series considers a 24-month moving average. [2], [3] An increase (decrease) in the indices denotes higher (lower) political or policy risks. The political stability and violence subcomponent of the Political Risk Index was used. Mean figures across 23 EMEs (AE, AR, BR, CL, CN, CO, DZ, HU, ID, IN, KW, MA, MX, MY, PE, PH, PL, RO, SA, TH, TR, VN, ZA). [2], [3], [4] AEs include 33 countries (AU, AT, BE, CA, HR, CZ, DK, EE, FI, FR, DE, GR, HK, IE, IL, IT, LV, LT, LU, MT, NL, NZ, NO, PT, SG, SK, SI, ES, SE, CH and GB), and EMEs include 22 countries (AE, AR, BR, CL, CO, DZ, EG, HU, ID, IN, KW, MA, MX, MY, PE, PH, PL, RO, SA, TH, TR and VN).

Sources: Arvis et al (2024); Caldara and Iacoviello (2022); Juhász et al (2025); PRS Group; BIS.

Industrial policy by major economies lowers prices globally and reduces exports and manufacturing output in other countries in the long run[1]

In per cent



[1] Each panel shows the impact of a subsidy lowering production costs by 10% in all manufacturing sectors (Sectors 3–13 in Table A.1) in economies adopting industrial policy. [2] Nominal exports. [3] Real output by the manufacturing sectors in value-added terms.

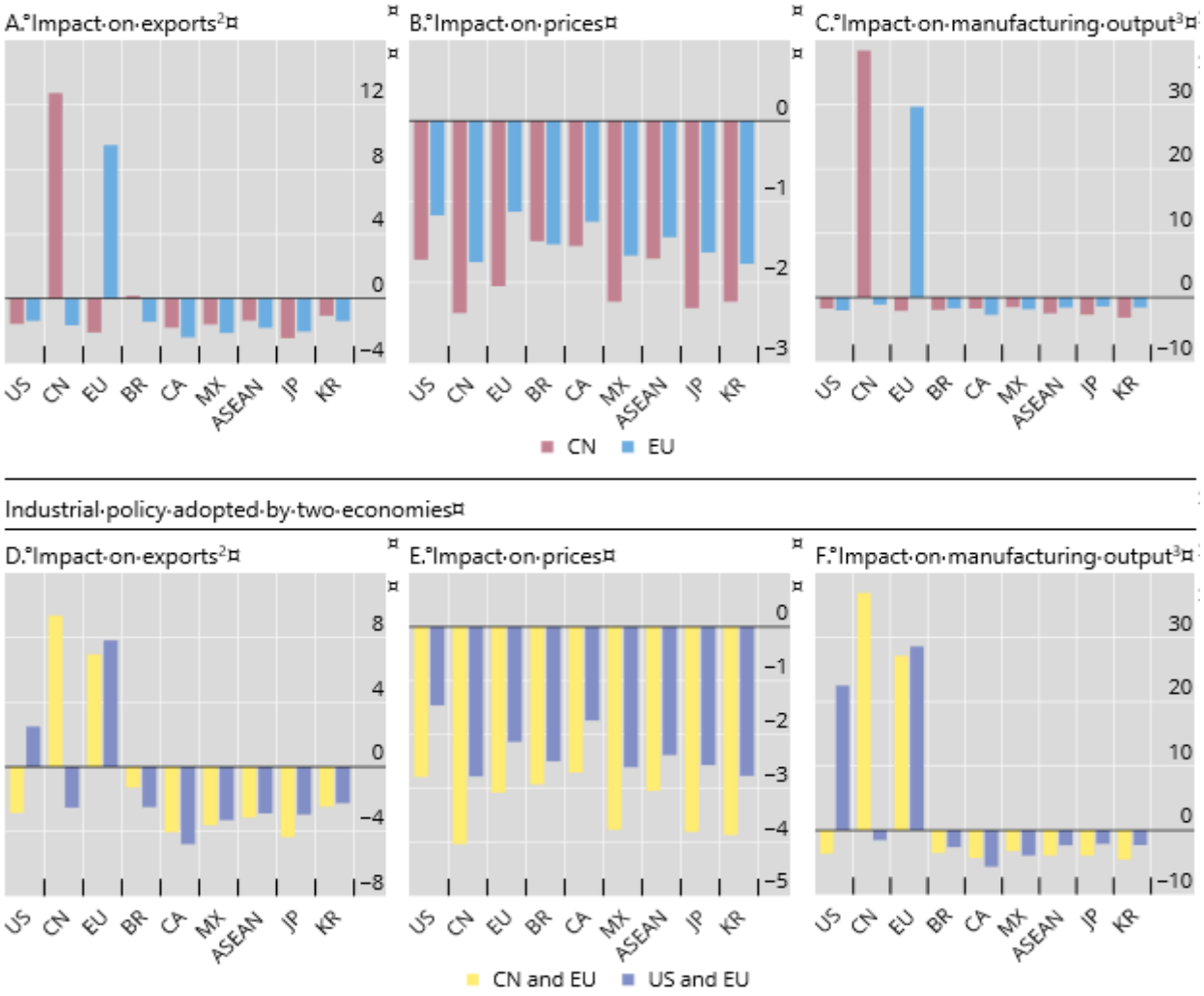
Source: BIS calculations based on the model in Zhao (2025).

- Prevalence of zombie firms domestically depresses overall firm performance, crowds out healthy firms, and depresses inflation and GDP growth in Asian EMEs (Hofmann, Liu and Shim (2026)).
- The macroeconomic effects of zombie firms extend across borders: exposure to zombie firms in Asian EMEs significantly reduces inflation and growth in advanced economies.
- These spillover effects operate mainly through GVCs and an intermediate goods import price channel.

Industrial policy by major economies lowers prices globally and reduces exports and manufacturing output in other countries in the long run[1]

In per cent

Graph A.6

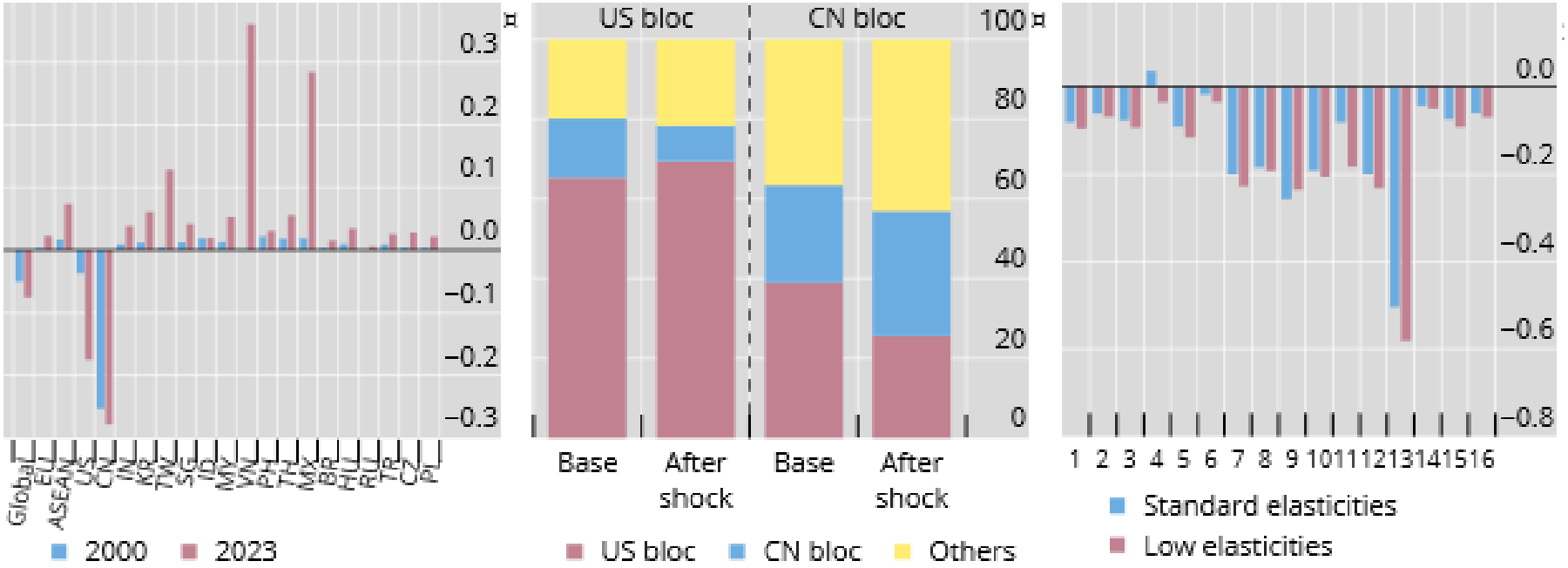


[1] Each panel shows the impact of a subsidy lowering production costs by 10% in all manufacturing sectors (Sectors 3–13 in Table A.1) in economies adopting industrial policy. [2] Nominal exports. [3] Real output by the manufacturing sectors in value-added terms.

Source: BIS calculations based on the model in Zhao (2025).

Increased trade costs between two major economies and the associated supply chain disruptions can have heterogenous effects across countries and sectors

In per cent



[1] The blue bars show the impact on each economy's output of a 15% bilateral increase in trade costs between the United States and China under the input-output table as of 2020, while the red bars the impact as of 2023. [2] Each bar shows the share of imports by each bloc, assuming no increase in trade costs within a bloc and a 25% increase across blocs, using the model baseline in 2023. Blocs are defined based on geopolitical distance or alignment of countries. [3] Each bar reports the sectoral output change relative to the model baseline under a scenario where bilateral trade costs between the United States and China increase by 15%. Blue bars refer to estimates based on "standard" within-sector substitution elasticities commonly used in the literature. Red bars refer to estimates using lower substitution elasticities. See Table A.1 in Annex for the 16 sectors shown in this panel.

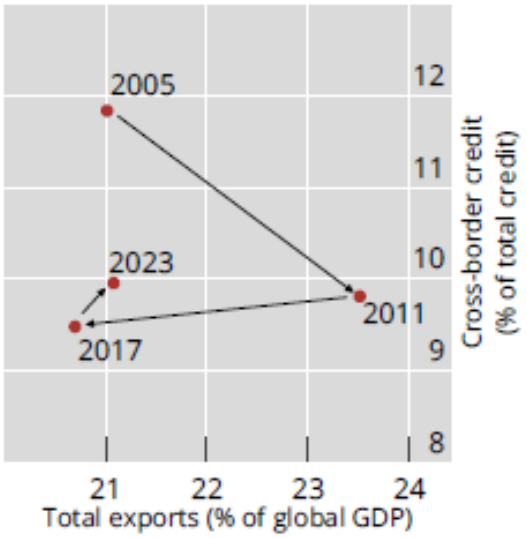
Source: BIS calculations based on the model in Zhao (2025).

Over the past decade, rising geopolitical tensions have tempered the pace of global integration, while regional trade and banking linkages have gained increasing importance, particularly in emerging Asia and Latin America, which show the growing relevance of regional integration as a complementary force to global integration.

Evolution of global and regional trade and banking integration

Graph 1

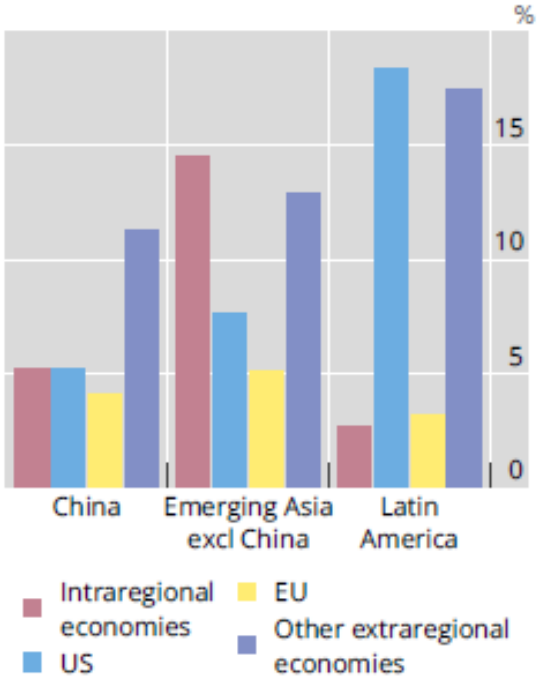
A. Global trade vs banking integration



B. Change in the intraregional share[1]



C. Value added in goods absorbed by intraregional & interregional demand[2]



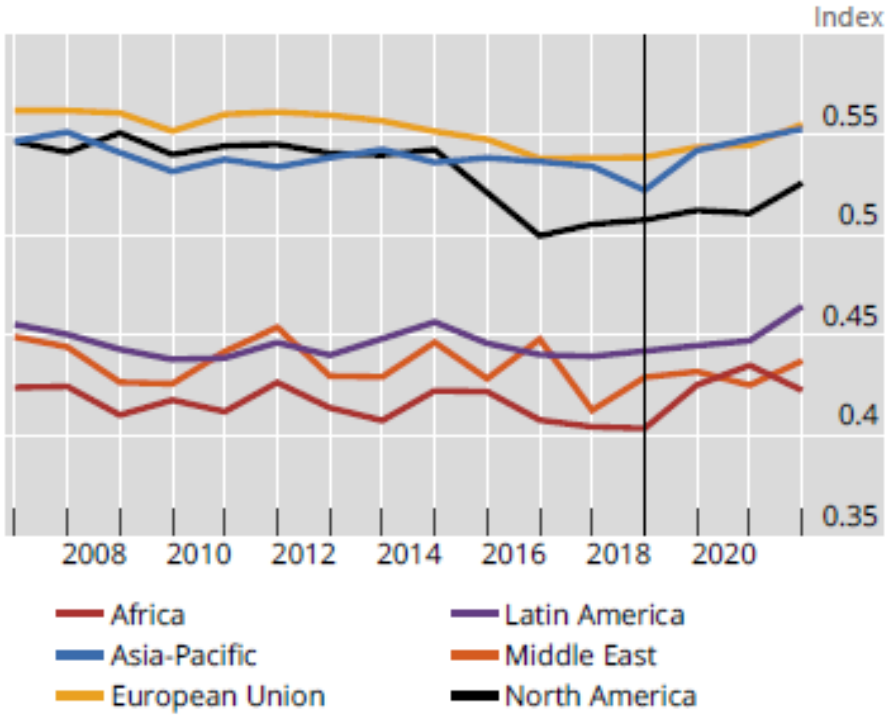
[1] The intraregional banking share is calculated as the shares of intraregional bank credit in total cross-border bank credit. AFME = Africa and the Middle East; CEE = central and eastern Europe. [2] Each bar represents the share of value added absorbed in 2023 by final demand from intraregional economies (excluding domestic), the United States, the European Union and other extraregional economies.

Sources: Asian Development Bank, *Multiregional Input-Output Table*; IMF; BIS locational banking statistics; BIS.

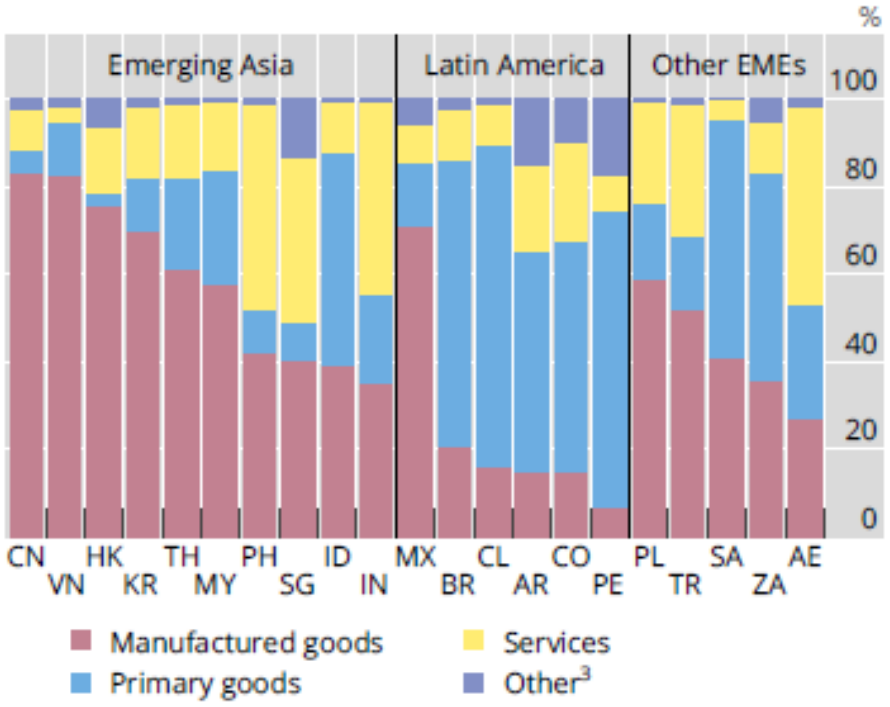
Regional supply chain integration and export structure by region

Graph 2

A. Regional supply chain integration[1]



B. Export structure of EMEs by region[2]



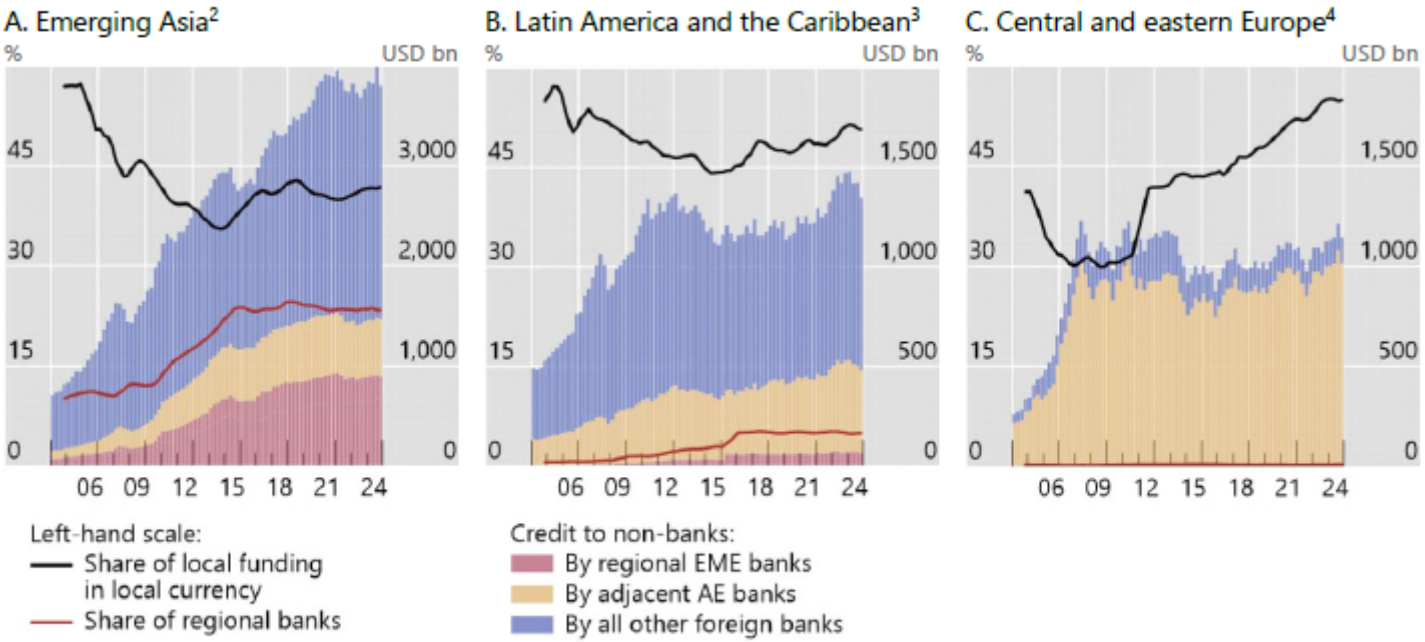
[1] The regional supply chain integration index by the Asian Development Bank tracks regional trade and value-added links. "North America" includes Canada and the United States, while "Latin America" includes Mexico. The black line marks the start of the US-China trade war. [2] Figures as of 2023, except for Korea and Vietnam which are as of 2022. [3] The "other" category covers goods exports other than manufactured and primary goods.

Sources: Asian Development Bank; World Bank; BIS.

- Direct cross-border credit (credit to non-banks), which is about half of cross-border credit to EME borrowers, can be related to trade credit or the financing of working capital to support integrated supply chains.
- The other half is indirect (interbank) cross-border credit, an important source of funding for local banks.
- The regional share of cross-border banking is highest in emerging Asia at about 60%.
- Hong Kong SAR and Singapore play a key role as regional financial centres (Remolona and Shim (2015)). By contrast, in LatAm and CEE, the proximate major AEs (Canada/US, large EA economies) are key providers.

Foreign bank credit to non-bank borrowers in EMEs[1]

Graph 4



[1] Foreign bank credit includes cross-border and foreign currency credit as well as credit extended locally in local currency. The shares are four-quarter moving averages. [2] Regional banks include "outside area" (ie non-reporting banks) which are mostly Chinese banks. Adjacent AEs: Australia and Japan. [3] Adjacent AEs: Canada and the United States. [4] Central and eastern European countries do not include countries in the euro area. The share of regional EME banks is low partly due to a lack of reporting countries. Adjacent AEs: euro area countries.

Sources: BIS consolidated banking statistics; BIS.

- A deeper mode of banking integration is presence of foreign banks as subsidiaries funded by local deposits. Subsidiaries of foreign banks may deepen the local banking market and induce more competition.
- The presence of *regional* (foreign) banks, however, appears to be more limited in EMEs, except in EM Asia.
- In Latin America, there are signs of regionalisation in some countries. For instance, Brazilian banks are active via local subsidiaries in Chile and Colombia.
- As of September 2025, 30 banks operated in Colombia including 10 foreign bank subsidiaries (25.6% of banking system assets).
- As of June 2025, 6 Colombian banks (including 2 foreign banks) had 15+ foreign bank subsidiaries with total assets of USD 32+ bil, representing 12% of the consolidated assets of Colombian credit institutions (CIs). They are in Central America (Costa Rica, El Salvador, Guatemala, Honduras, Panama (USD 16+ bil)), the Caribbean (Barbados, Cayman Islands, Puerto Rico) and South America (Paraguay, Peru).

Foreign bank branches and subsidiaries in Asia and the Pacific[1]

Table 2

Host / Home	AU	CN[2]	HK	IN	JP	KR	NZ	ID	MY[3]	PH	SG	TH	A–P total
AU		1/3	-/5	-/4	-/5	-/2	4/3	2/-	1/1	-/1	1/4	-/-	9/28
CN	1/5		9/11	-/1	-/5	-/5	3/-	1/1	2/-	-/1	2/6	2/-	20/35
HK	-/-	3/2		-/-	-/-	-/-	-/-	-/-	-/1	-/-	1/-	-/-	4/3
IN	-/2	-/4	-/12		-/2	-/1	2/-	2/-	1/-	-/-	6/1	-/1	11/23
JP	-/3	3/3	1/10	-/3		-/4	-/1	3/1	3/4	-/2	3/3	-/3	13/37
KR	-/2	6/3	2/5	-/2	1/8		-/1	3/-	-/-	-/1	-/5	-/-	12/27
NZ	-/-	-/-	-/-	-/-	-/-	-/-		-/-	-/-	-/-	-/-	-/-	-/-
ID	-/-	-/3	-/2	-/1	-/1	-/-	-/-		-/-	-/-	1/1	-/-	1/8
MY	-/-	-/3	1/3	-/-	-/1	-/-	-/-	3/-		1/-	4/-	1/1	10/8
PH	-/-	2/-	1/2	-/-	-/2	-/-	-/-	-/-	-/-		-/1	-/-	3/5
SG	-/2	4/-	2/4	-/2	-/3	-/3	-/-	3/-	2/3	-/-		1/1	12/18
TH	-/-	2/2	-/4	-/1	-/1	-/-	-/-	1/1	1/-	-/-	1/2		5/11
A–P total	1/14	21/23	16/58	-/14	1/28	-/15	9/5	18/3	10/9	1/5	19/23	4/6	100/203
Others	6/26	17/42	12/87	-/31	1/43	2/24	1/5	4/7	17/15	1/8	9/70	2/7	72/365
Total	7/40	38/65	28/145	-/45	2/71	2/39	10/10	22/10	27/24	2/13	28/93	6/13	172/568

AU = Australia; CN = China; HK = Hong Kong SAR; ID = Indonesia; IN = India; JP = Japan; KR = Korea; MY = Malaysia; NZ = New Zealand; PH = Philippines; SG = Singapore; TH = Thailand.

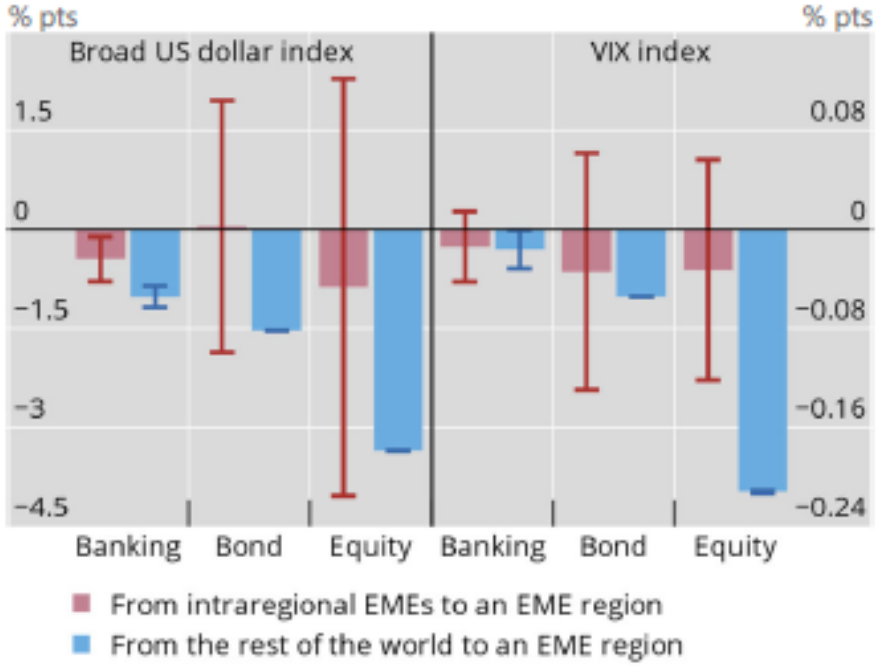
[1] The first figure in each cell represents the number of foreign bank subsidiaries located in a host country owned by ultimate parent banks headquartered in a home country, while the second the number of foreign banks that have branches in a host country. The thick box represents foreign bank branches and subsidiaries among the ASEAN-5 home-host countries. [2] Based on the 2013 Annual Report of the China Banking Regulatory Commission. [3] Includes foreign banks and branches in Labuan.

Sources: National sources (retrieved from the websites of central banks and financial regulators in early January 2015); BIS calculations.

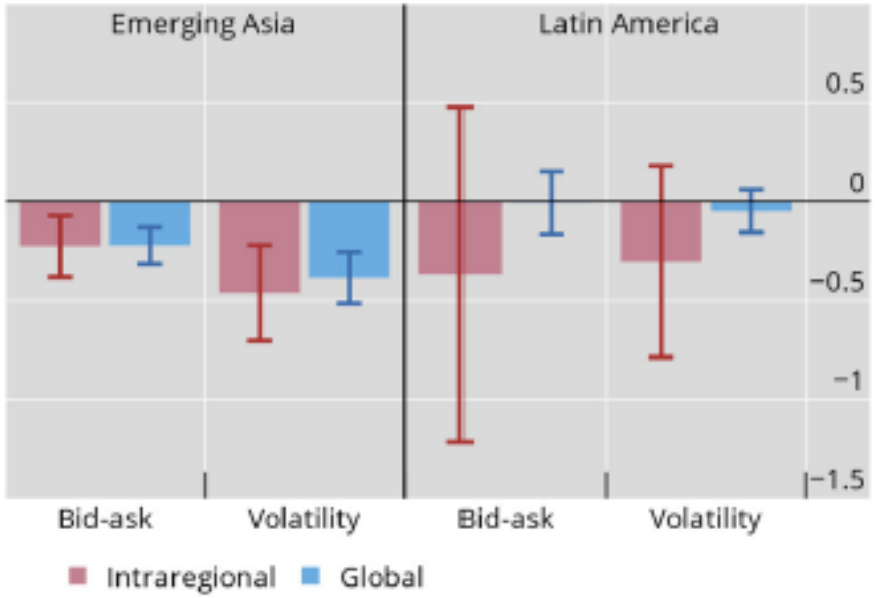
Behaviour of global vs intraregional investors in EME financial markets

Graph A5

A. Sensitivity of capital flows to global shocks[1]



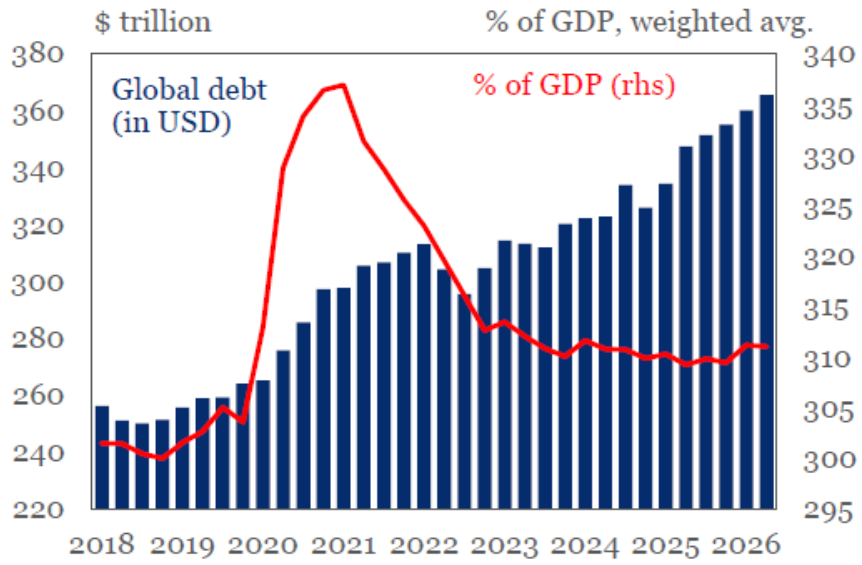
B. Impact of bond liquidity on foreign bond holdings[2]



[1] Vertical lines correspond to the 90% confidence interval. For banking flows, estimation sample from Q1 2000 to Q3 2004. For bond and equity flows, estimation sample from H1 2014 to H1 2024. [2] Vertical lines correspond to the 95% confidence interval. A decrease in the bid-ask spread of five-year EME local currency government bonds and their volatility means that their bond market liquidity improves. Therefore, a negative value of the coefficient shown in this panel means that when an EME's local currency bond market liquidity improves, intraregional or global investors' purchase of the EME's bonds increases.

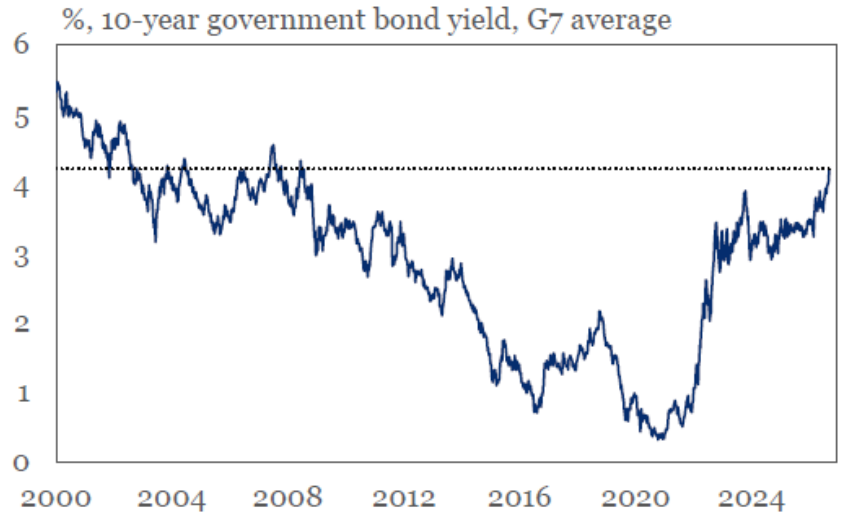
Sources: IMF, *Portfolio Investment Positions*; Bloomberg; LSEG Refinitiv; BIS.

Chart 1: Global debt tops $365 trillion in the first half of 2026; debt-to-GDP ratios are kept in check by inflation



Source: IIF Global Debt Monitor

Chart 2: Long-term borrowing costs are at their highest levels in nearly two decades



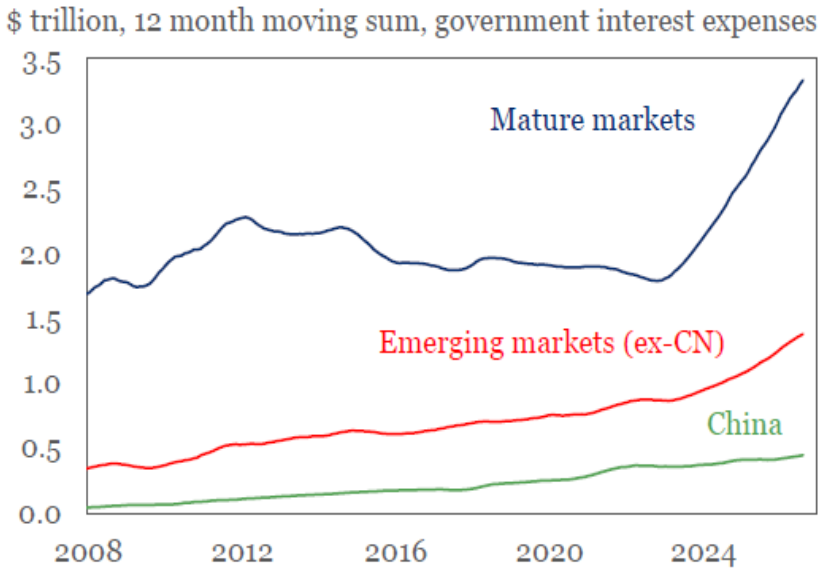
Source: Bloomberg, IIF

Table 1: Sectoral Indebtedness

$ trillion	Households		Non-financial corporates		Government		Financial sector		Total	
	Q2 2026	*Q2 2025*	*Q2 2026*	*Q2 2025*	*Q2 2026*	*Q2 2025*	*Q2 2026*	*Q2 2025*	*Q2 2026*	*Q2 2025*
Mature markets	46.4	45.4	62.3	60.6	73.8	71.2	72.5	70.6	255.0	247.9
Emerging markets*	19.3	17.9	42.8	38.5	36.7	31.7	11.7	11.5	110.6	99.5
Global	65.7	63.3	105.1	99.1	110.5	102.9	84.3	82.1	365.5	347.4

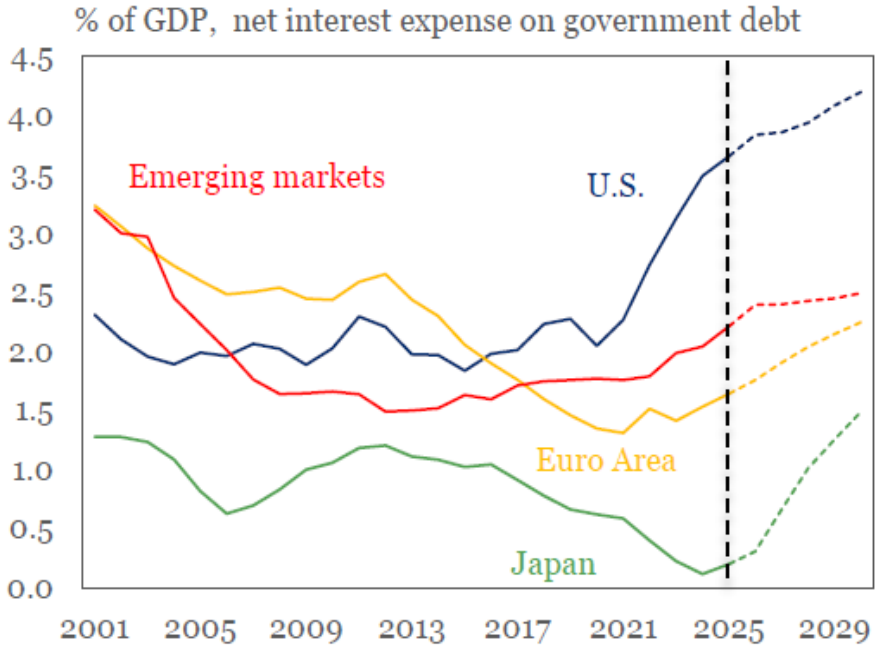
*Source: See the IIF Global Debt Monitor database for the full list of sources and methodology; *includes over 60 countries*

Chart 3: Interest expense is skyrocketing in mature markets, as refinancing with more reliance on short-term debt amplifies the impact of higher borrowing costs



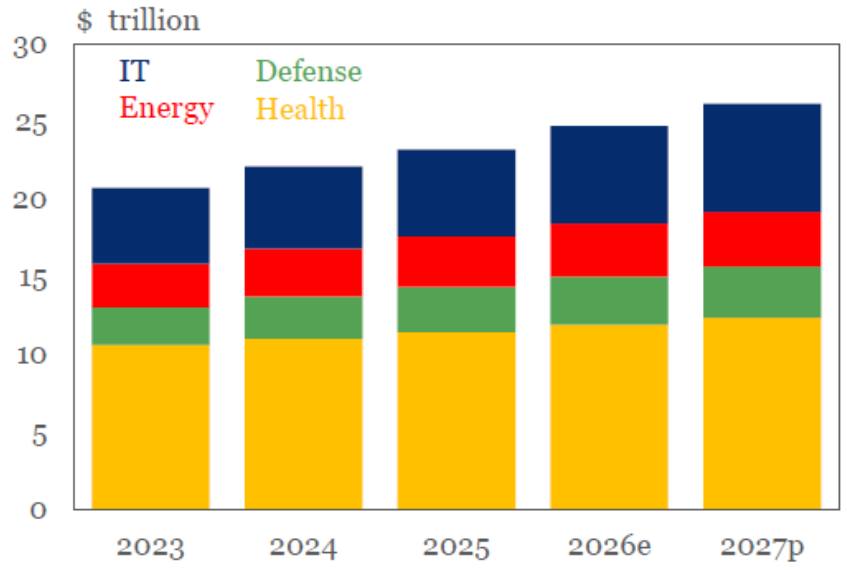
Source: Bloomberg, IIF

Chart 14: Interest expense is rising rapidly across many mature market economies



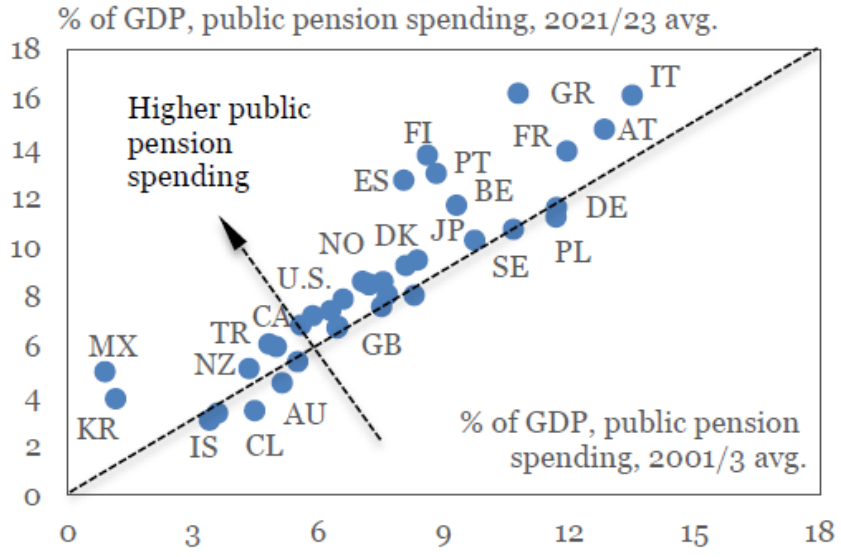
Source: IMF, IIF

Chart 10: Spending supercycle: healthcare, energy, AI/IT, and defense spending should hit $25 trillion in 2026



Source: WHO, IEA, Gartner, SIPRI, IIF

Chart 12: Public pension systems represent an important contingent liability for sovereigns



Source: OECD, IIF

- The buildup in global debt is set to accelerate as governments and corporates compete to boost growth and secure their positions in an economy reshaped by structural changes.
- Spending on healthcare, energy security, AI and IT, and defense - the "HEAD supercycle"- is driving demand for capital.
- These sectors are projected to account for $25 tril in 2026, equivalent to one-fifth of global output.

- Public pension spending is another key vulnerability.
- Aging populations are pushing pension costs steadily higher, creating large contingent liabilities for sovereigns.
- Yet pension reform remains politically sensitive, making it difficult for policymakers even to acknowledge or address the challenge.

Bank-NBFI nexus

- Channels of linkages between banks and NBFIs in the domestic context
  - Banks lend to NBFIs: either multiple NBFIs rely on one bank or multiple banks lend to one NBFI
  - Banks help NBFIs (eg MMFs) place spare cash and provide credit lines
  - Banks provide clearing services to NBFIs in centrally cleared markets and thus are subject to risks when NBFIs fail to meet margin calls.
  - Banks operate as market-makers, facilitating market trading by NBFIs.
  - Banks provide guarantees and other forms of security to NBFIs.
  - Some NBFIs are owned by banks, so can create risks when NBFIs fail.
- Bank-NBFI nexus in the cross-border context
  - Large international banks' cross-border claims on and cross-border liabilities to NBFIs have increased substantially over the past years, especially when it comes to claims in US dollars
    - This bank-NBFI nexus can even have impacts on the real sector.
    - For example, in early 2020 due to Covid, dollar funding from NBFIs to banks dried up, which squeezed bank lending to the real economy.
  - Important to note that stress in NBFIs affect large global banks, which are also major providers of FX loans and dealers in FX derivatives markets.

AI adoption in financial sector and fin stability implications

- AI adoption differs across institutions, functions and jurisdictions.
  - Banks have moved faster in back-office functions but remain more cautious in front-office applications.
  - Payment service providers have been using AI in customer-facing functions such as KYC and behavioural risk analytics.
  - Insurers are moving from rule-based systems to more AI-driven claims handling and underwriting.
  - In capital markets, trading firms and asset managers have used machine learning for some time, but frontier models may bring about deeper changes.
  - Adoption across jurisdictions depends on differences in AI readiness, access to frontier models, the availability of supporting infrastructure (eg data centres).
- AI adoption can pose operational challenges and risks to financial institutions.
  - Third party dependency
  - Cyber risk
  - Competition between large and small banks
  - AI-driven credit underwriting could change how lenders screen borrowers and manage credit risk, especially for borrowers with limited credit histories
  - The use of frontier models in trading and asset management is likely to have profound consequences for financial markets and asset prices.

Implications for financial regulation and supervision

- Strong/modern supervision
  - Strong supervision: mandate, independence, powers, determined to act, accountability
  - Modern supervision: capable people, information/data, technology, expertise, acting intelligently
  - Follow-up actions by the Fed on SVB etc and by the SNB on Credit Suisse
    - TBTF, crisis preparedness, central bank liquidity, supervisory culture, …

- Growing competition and linkages with NBFIs
  - Banks are linked to NBFIs in various aspects
  - Banks compete with NBFIs
    - Corporate bond funds, money market funds, private credit funds and CLOs (often controlled by PE firms), payment fintechs, stablecoins, etc
  - NBFIs take credit, liquidity, market risks but subject to less stringent regulation and are often subject to less burdensome AML requirements
  - Same risk, same regulation ("congruent/equivalent regulation") for NBFIs
  - More focus on financial intermediation by activity type (function) and the implications for systemic risk than an institution-based approach

Implications for financial regulation and supervision (cont'd)

- Implications of geopolitical risk, industrial policy, trade policy uncertainty, supply chain reconfiguration and fiscal concerns
  - Geopolitical tensions (eg sanctions) affect bank business, reputation risk
  - Industrial policy pressures banks to evergreen loans to zombie firms
  - Trade policy uncertainty discourages corporate investment, while higher tariffs at importing countries reduce firm exports and profits, lowers ICR and increase NPLs.
  - Supply chain stress and reconfiguration put pressures on corporate profits and also changes banks' provision of trade credit and other loans
  - More volatile government bond markets due to rising fiscal risk may increase pressure on the central bank and the financial system to support government finance
  - Higher bond yields are likely to increase credit risk and market risk
  - National political agenda may affect international regulatory cooperation
  - From central banks' point of view, key potential risks/challenges are fiscal, financial and (increasingly) geopolitical dominance

Recent discussions on macroprudential policy on NBFIs

- Recent considerations for macroprudential policies on NBFIs
  - EU: EC consultation paper on "Assessing the adequacy of macroprudential policies for non-bank fin intermediation", May 2024
  - UK: BOE "Contingent NBFI Repo Facility", Market Notice Jan 2025
    - gilt market focus; pricing; scope (insurance companies, pension funds, LDIs); collateral (gilts); haircuts
  - IE: Central Bank of Ireland (CBI) Discussion Paper "An approach to macroprudential policy for investment funds", July 2024
    - CBI adopted a leverage limit for Irish property funds in 2022
    - CBI and CSSF (Luxembourg market authority) adopted a yield buffer to mitigate leverage of GBP-denominated LDI funds
  - Canada: Bank of Canada's "Contingent Term Repo Facility" to respond to extraordinary/severe market-wide liquidity stress; first activated in 2020

AI's potential impacts on financial regulation/supervision

- AI is likely to shift banking regulation and supervision from periodic, human-led reviews to real-time, data-driven and continuous monitoring.
- Shift to real-time supervision (SupTech)
  - Continuous monitoring
  - Natural language processing: use AI to query databases and conduct legal consistency check before introducing a new rule (Bank of Mexico)
  - Automated anomaly detection
  - Supervision of payment irregularities
- Evolution of financial institutions' regulatory compliance (RegTech)
  - Automated reporting
  - Dynamic compliance (eg initial LTV vs current LTV)
  - Standardised taxonomies/definitions
- Addressing new systemic and governance risks
  - Agentic AI behaviour (herding and collusion among AI agents in financial market trading, agentic AI-driven deposit shift & narrower NIM, etc)
  - The black-box problem: how to limit/control AI actions
  - Third-party dependencies of financial institutions and supervisors

Select references

- "Initial findings from independent review of Silicon Valley Bank", Michelle Bowman, speech at the luncheon of the Lord Mayor City of London at Mansion House, London, UK, 18 September 2026.
- "Regional integration amid global fragmentation", Torsten Ehlers, Fredy Gamboa, Han Qiu and Ilhyock Shim, *BIS Bulletin*, no 102, 5 June 2025.
- "The role of central banks in managing financial crises in times of rapid change", Pablo Hernandez de Cos, speech at the SUERF Annual Lecture, Vienna, Austria, 5 October 2026.
- "Zombie firms in emerging Asia: domestic and cross-border implications", Boris Hofmann, Xiaoxi Liu and Ilhyock Shim, *BIS Working Papers*, no 1375, September 2026.
- "The rise of regional banking in Asia and the Pacific", Eli Remolona and Ilhyock Shim, *BIS Quarterly Review*, September 2015.
- "Global behaviour of NBFIs focusing on open-ended collective investment funds and capital flows to EMEs", Ilhyock Shim, presentation at the Central Bank of Colombia Financial Stability Outreach with the Private Sector, Bogota, Colombia, 10 December 2025.
- "Recent developments in the Americas and financial stability implications", Ilhyock Shim, presentation at the Financial Stability Board Regional Consultative Group for the Americas meeting, Nassau, the Bahamas, 17 June 2025.
- "Strong and modern supervision in a fast-moving world", Erik Thedeen, speech at the 24th International Conference of Banking Supervisors, Bali, Indonesia, 30 September 2026.
- "A debt-intensive future – and growing risks for global markets", Emre Tiftik, Khadija Mahmood, Raymond Aycock and Sonja Gibbs, *IIF Global Debt Monitor*, 23 September 2026.
- "Regulation and supervision of the financial sector in the age of artificial intelligence", Fundi Tshazibana, speech at the University of Johannesburg, Johannesburg, South Africa, 8 May 2026.