



Macroprudential policy: from BIS origins to new frontiers

Helene Rey*, Economic Adviser and Head of the Monetary and Economic Department, BIS

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* The views expressed are mine and not necessarily those of the BIS.

Outline

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Origins, mechanisms and adoption

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AI: good boom or bad boom?

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Changing landscape of financial markets

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Cyber risk

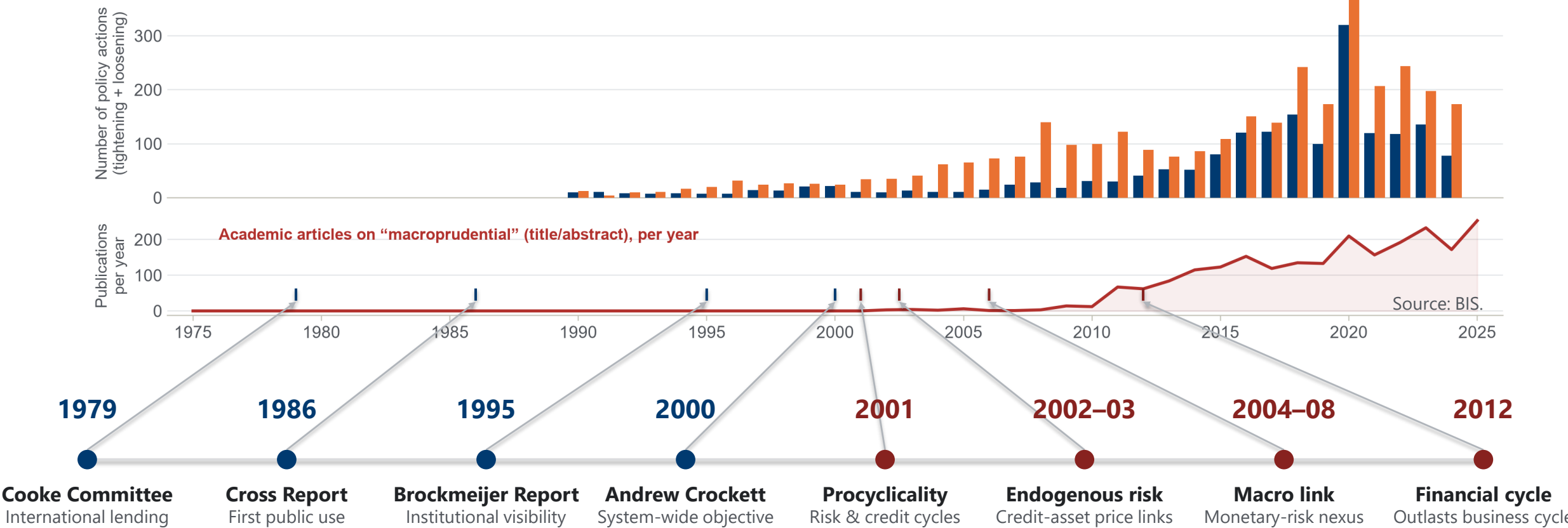
Weak links, panic and precautionary hoarding

Fifty years of macroprudential policy: actions, research and milestones

Macroprudential policy actions by country group, and academic research attention, 1975–2025

Macroprudential policy activity increased sharply after the Global Financial Crisis

■ Advanced economies ■ Emerging market economies

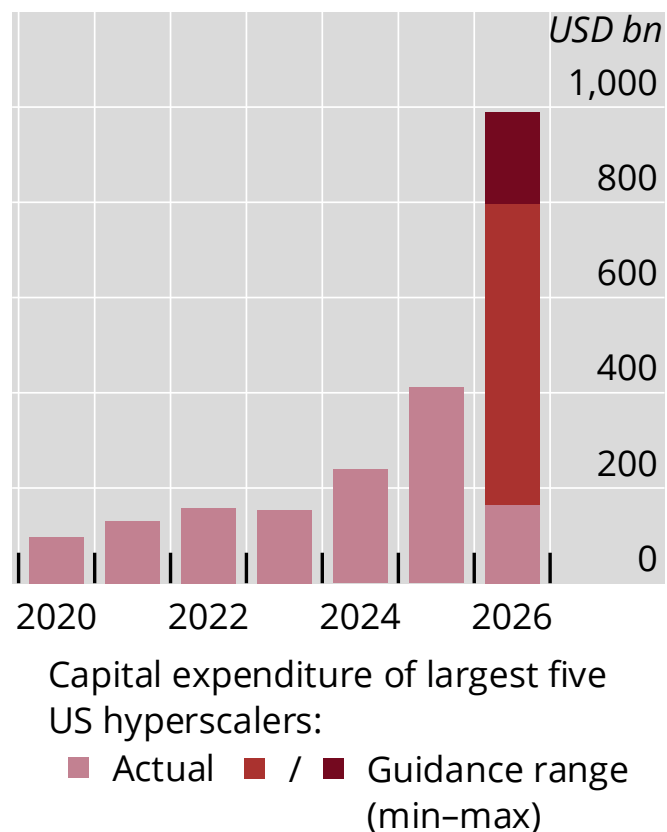


Sources: IMF, integrated Macroprudential Policy (iMaPP) database, Alam et al. (2019), updated 2025; number of tightening plus loosening actions across the 17 headline instruments, summed by year and country group (no data before 1990; 2025 not yet available). Galati and Moessner, "Macroprudential policy – a literature review", BIS Working Papers, no 337, 2011 (EconLit search counts, 2000–09); Crossref bibliographic database search for "macroprudential", 2010–25. BIS.

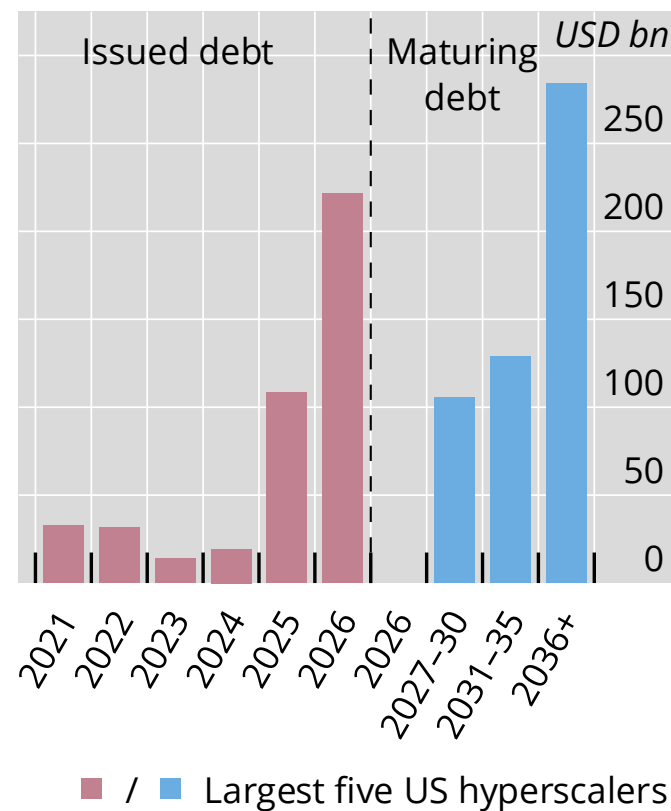
AI: good boom or bad boom?

What are the financial stability implications of the ongoing AI boom?

Massive capital expenditure

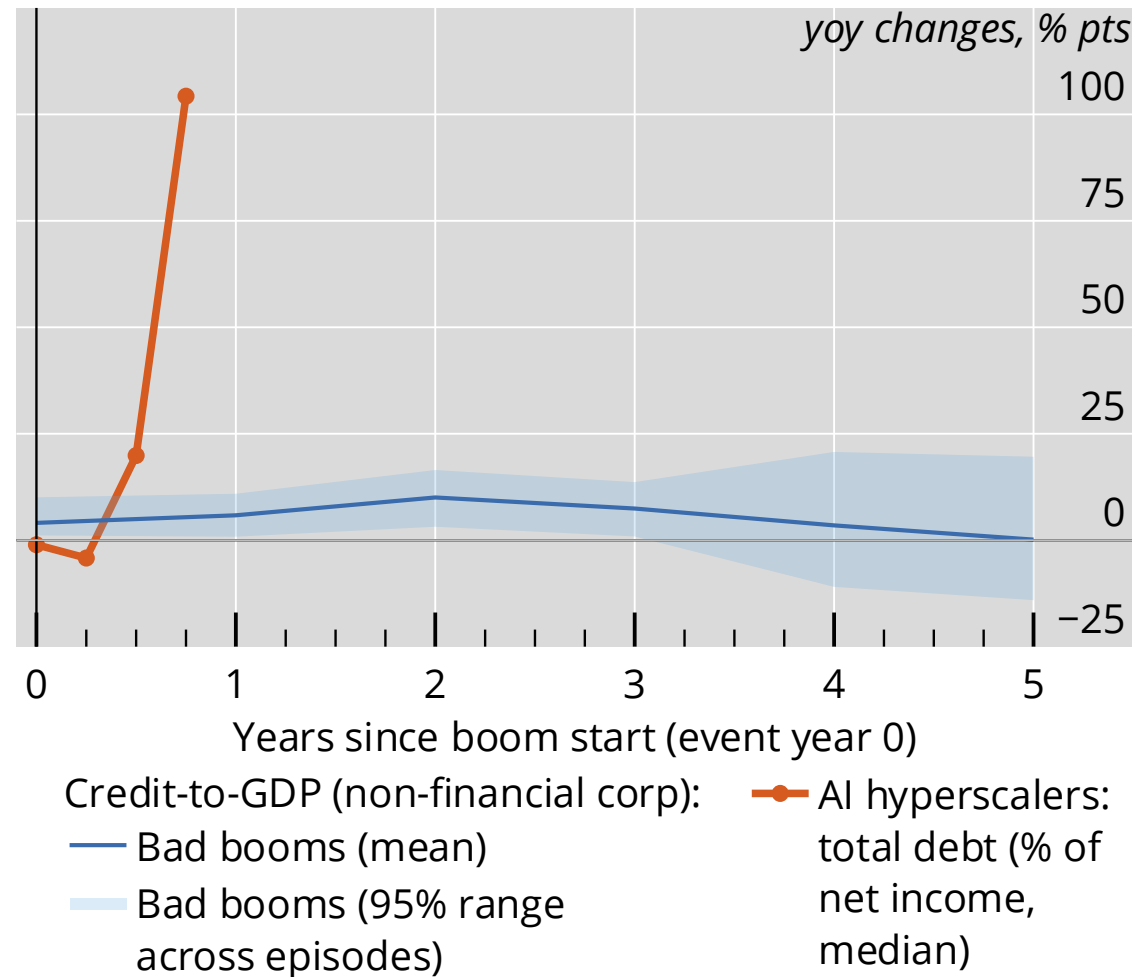


... funded by record borrowing with very long maturities



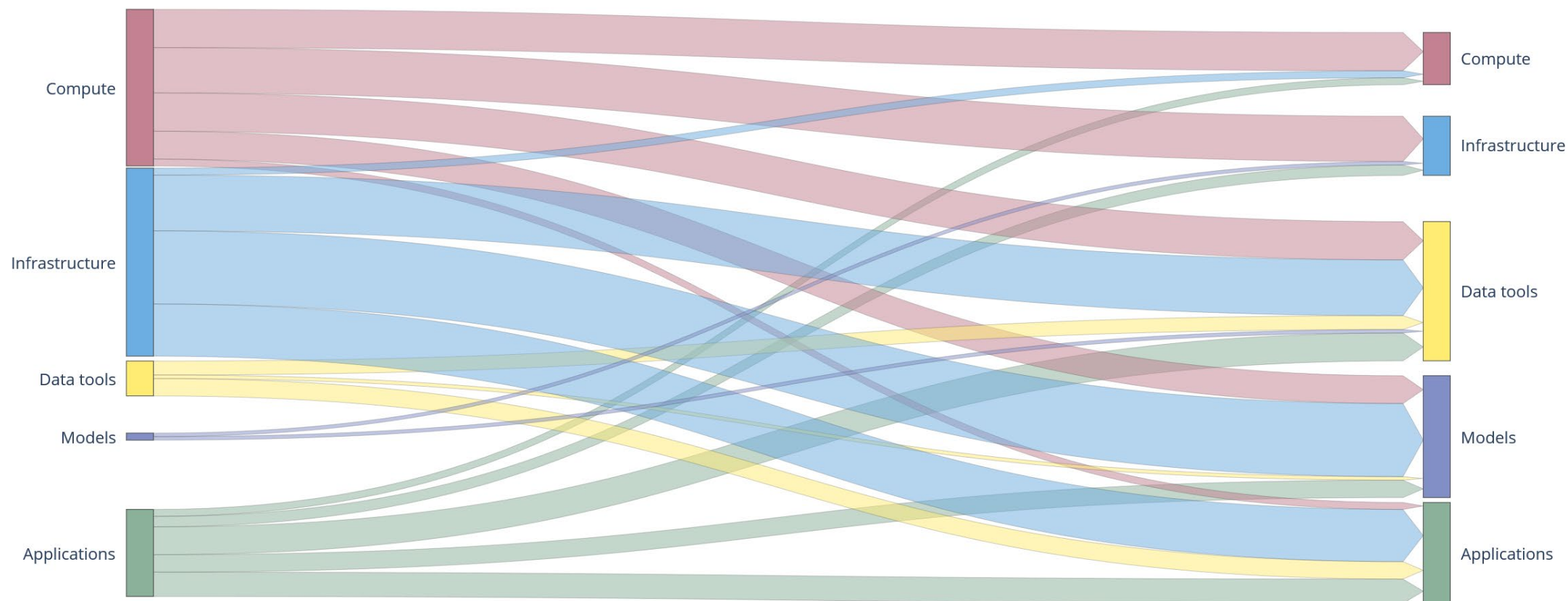
Source: Eren-Krohn-Todorov (2026, BIS Quarterly Review, March).

Very rapid uptake in credit even when benchmarked against past credit booms



Source: Drehmann-Eren (Forthcoming, BIS Bulletin).

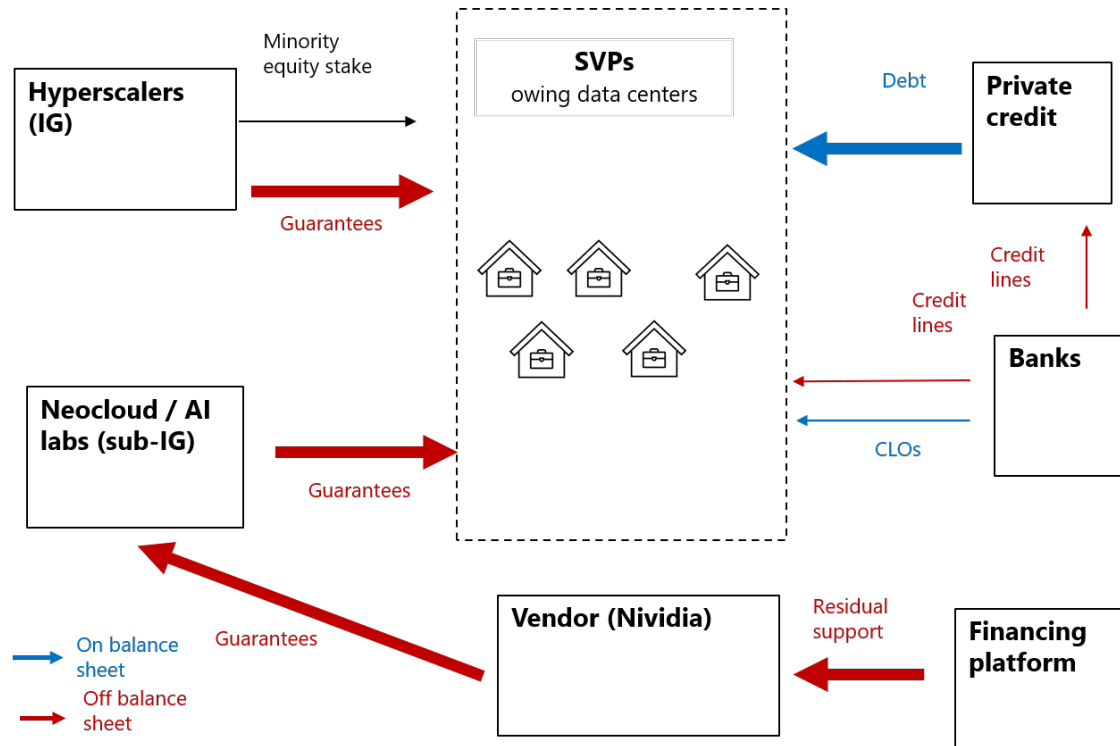
Circular relationships by AI supply-chain layer



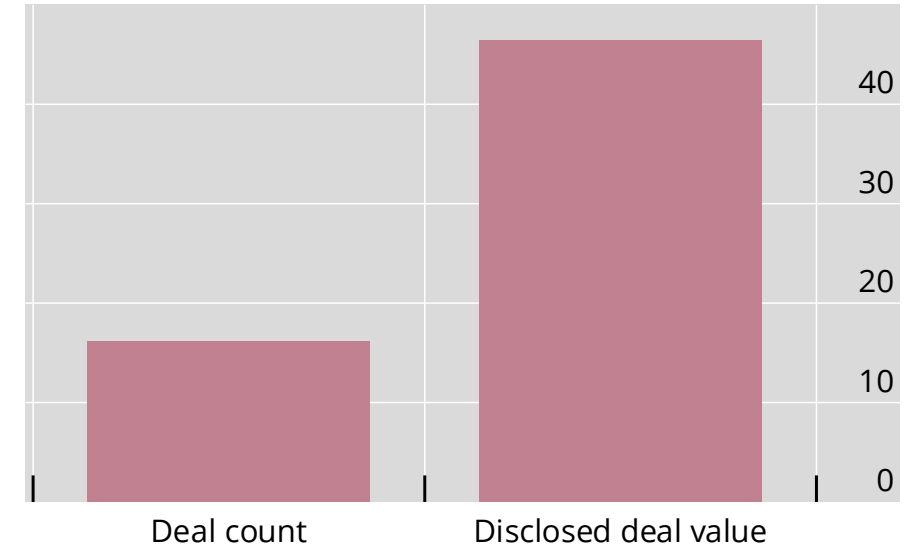
73% originate from compute or infrastructure firms

Source: Frost et al (Forthcoming, BIS Bulletin): 'Circular relationships in artificial intelligence'

Financing structures for data centers are complex and untransparent

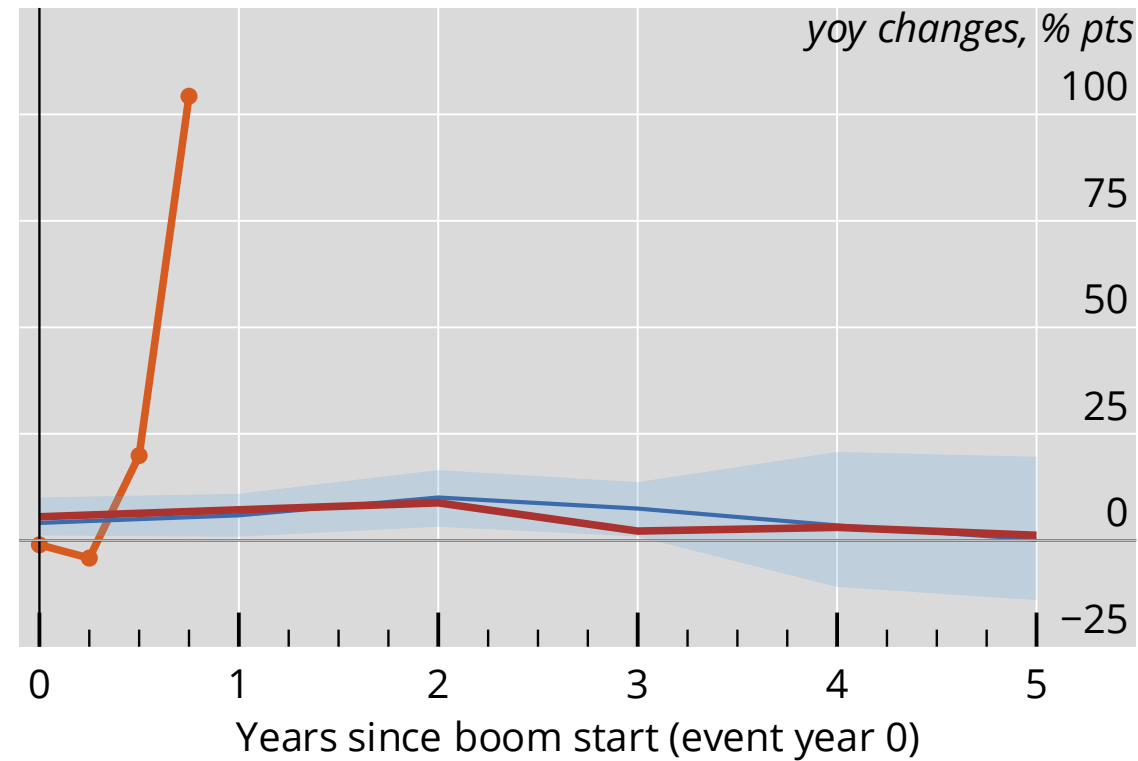


Wide-spread circular financing of AI deals increases contagion risks



In both cases, risk is highly concentrated in a few AI firms

But it could also be a good credit boom

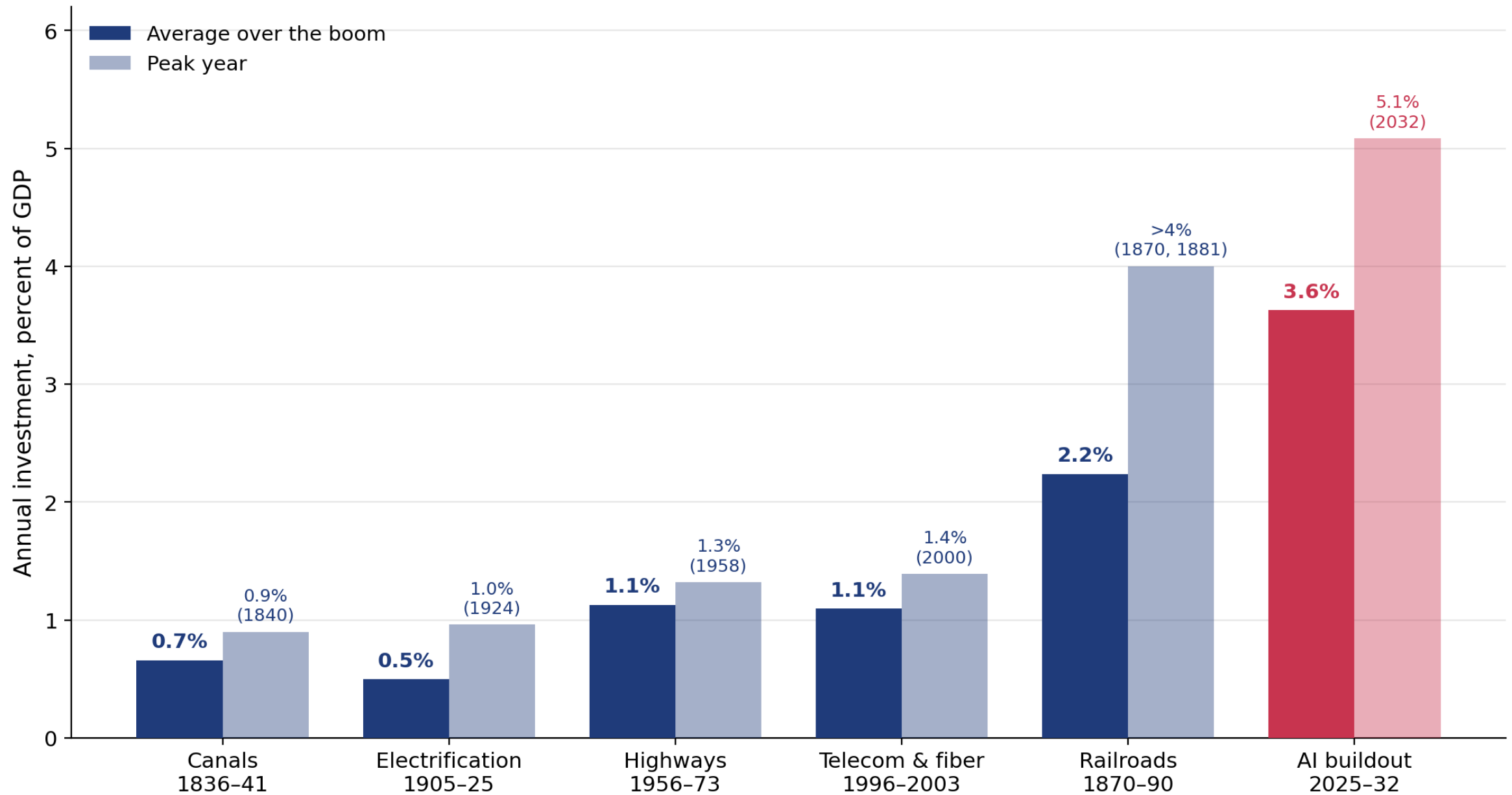


Credit-to-GDP (non-financial corp):

- Bad booms (mean)
- Bad booms (95% range across episodes)
- Good booms (mean)

— AI hyperscalers: total debt (% of net income, median)

Source: Drehmann-Eren (Forthcoming, BIS Bulletin).



Good boom?

- **Productive technology**
- **Many hyperscalers have low leverage and cash flows unrelated to AI**

Bad boom?

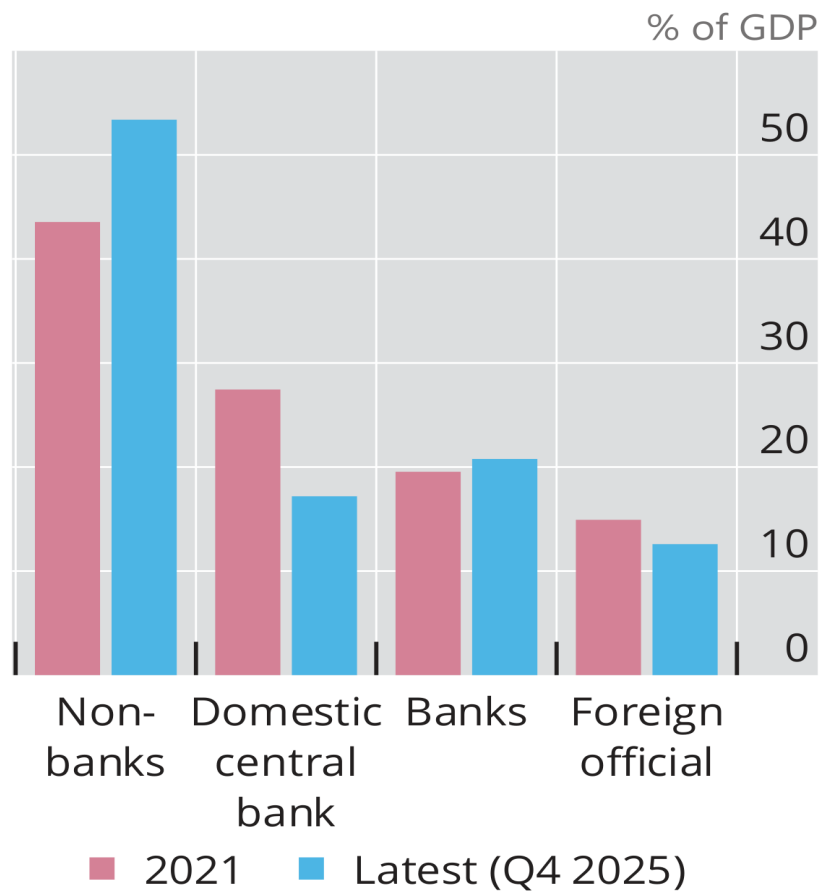
- **Rapid credit growth**
- **Revolutionary technology that lends itself to a narrative of “this time is different”**
- **Emergence of complex and untransparent financing structures**
- **High risk concentration**

- What should macroprudential policy makers do?

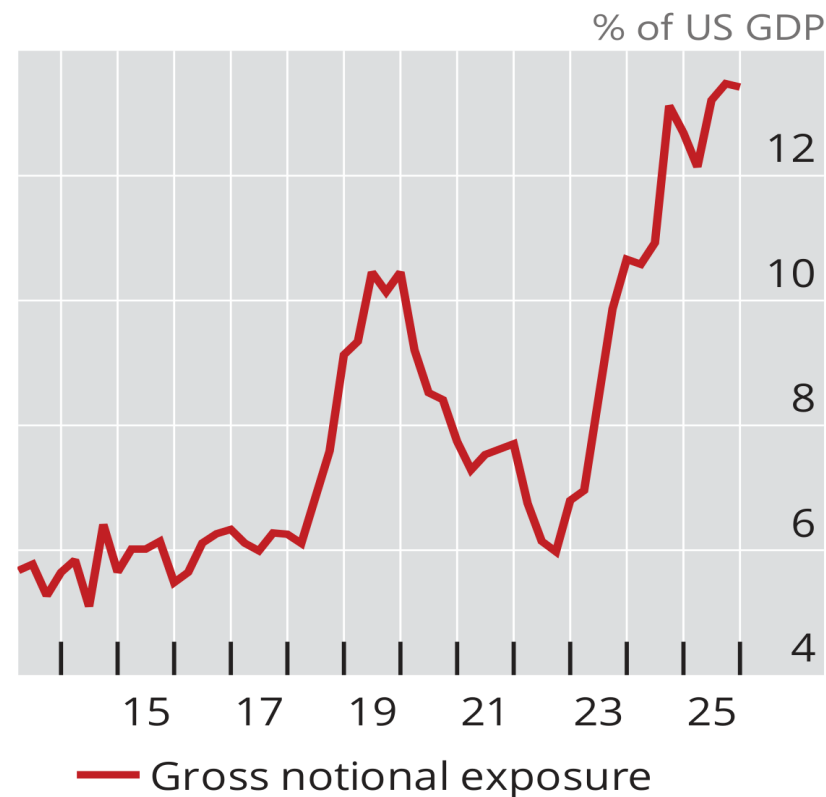
NBFIs, interconnections and borders

The financial market landscape is changing rapidly

A. Holders of AEs' sovereign debt



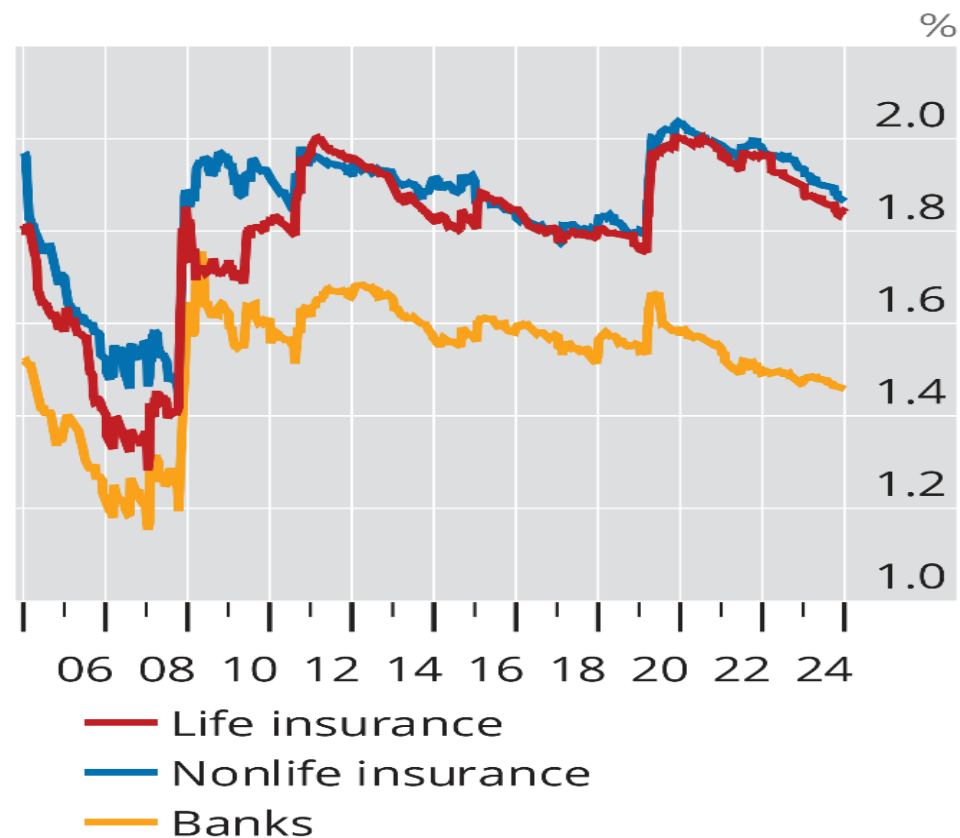
B. Hedge funds' US sovereign debt exposure has grown...



Source: BIS (2026), Annual Economic Report, "High public debt and shifting financial markets".

Life insurers' systemic contribution remains elevated

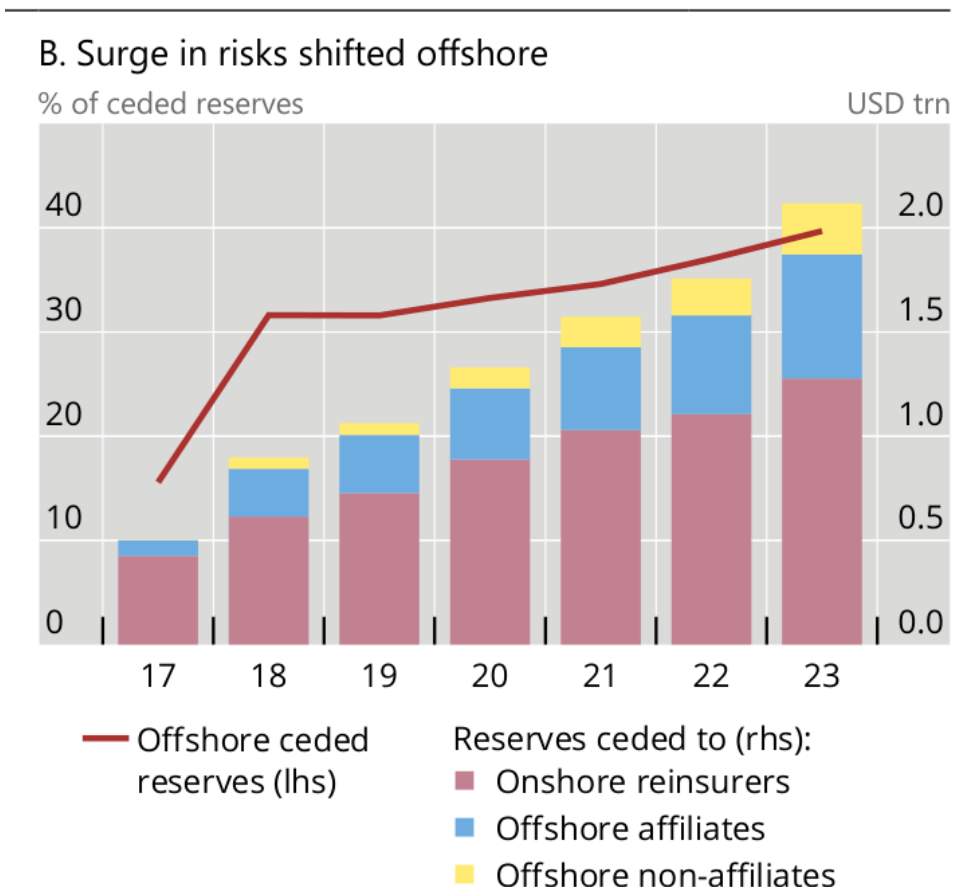
A. ΔCoVaR



Life insurers' Delta CoVaR remains well above its pre-GFC level.

Source: Aquilina et al (2025), BIS Papers No 161

Risks shifted offshore have surged



Scale

US life insurers ceded over \$2 trillion in reserves by 2023.

Offshore shift

The offshore share rose from about 15% in 2017 to 40% in 2023.

Policy focus

Map concentration, recapture risk and affiliated transactions across borders.

Source: Aquilina et al (2025), BIS Papers No 161

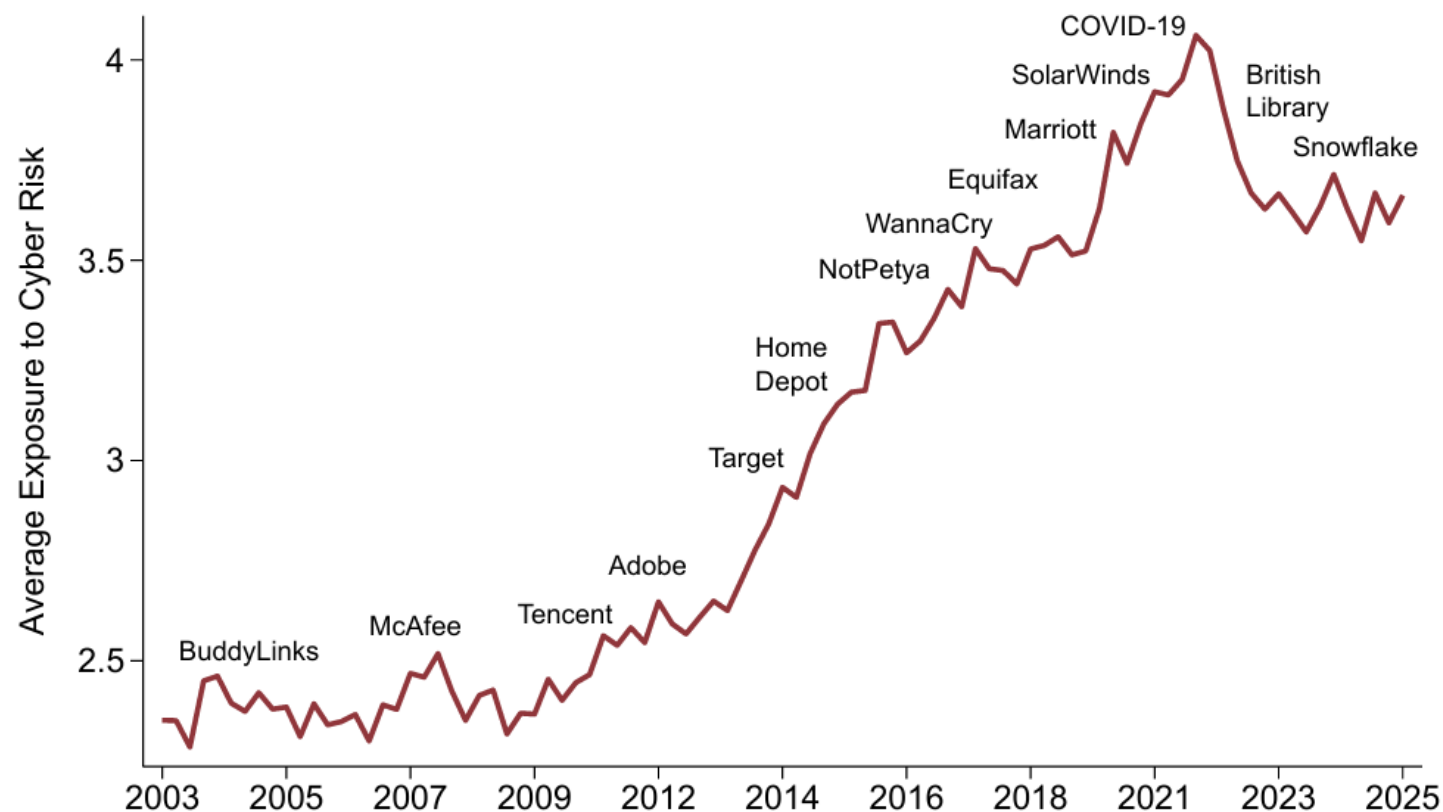
Implications: macroprudential policy must follow the risk

- **Extend the perimeter.** As finance migrates beyond banks, regulation should be congruent with economic function and risk, irrespective of legal form (BIS Annual Economic Report, 2026).
- **Add a system-wide perspective.** Firm-level supervision must be complemented by system-wide monitoring and stress testing of common exposures.
- **Follow the entire risk-transfer chain.** Offshore activities require comparable reporting, cross-border data sharing and visibility across various NBFI segments.

The objective is not to curb market-based finance, but to prevent hidden leverage, concentration and opaque linkages from turning idiosyncratic shocks into system-wide stress.

Cyber risk: a macroprudential approach

Cyber risk has become a first-order macro-financial risk



■ Economic implications

High cyber risk is associated with lower stock return, higher volatility and lower profitability.

■ Spillovers

Propagates from firms to sector level.

Global cost of cyber risk exposure
\$1 trillion per year

Source: Jamilov, Rey and Tahoun (2026), Figure 1.

Cyber risk vs Traditional Macroprudential Risk

Cyber risk is different from traditional macroprudential risk ...

Malicious

- 40% of cyber incidents are intentional and malicious (Aldasoro et al., 2020b)

Highly scalable

- Common vulnerabilities can hit thousands of firms at once (Baker and Lee, 2026)

Strategic, not cyclical

- No leverage cycle but risk rises with geopolitical tension (Baker and Lee, 2026) and financial stress (Eisenbach et al., 2025)

... but has similar consequences

Propagation

- It spreads fast through operational and financial linkages (Eisenbach, Kovner and Lee, 2022)

Runs

- Disruptions can trigger withdrawals, even at solvent banks (Duffie and Younger, 2019; Anand, Duley and Gai, 2026)

Trust

- Data integrity attacks erode confidence in the information itself

A macroprudential approach to cyber risk

$$E[Loss] = \Pr(Attack) \times \Pr(Breach|Attack) \times E[Loss|Breach]$$

Externalities: losses spill over

- Contagion is financial, through exposures, and informational, through loss of confidence
- Under-investment from a system-wide perspective

Concentration risk

- A failure at a critical node (eg CCPs) reaches many institutions
- A flaw at a shared provider hits all its clients at once

Cyber risk is becoming more concentrated and correlated

Defenders rely on same providers

- Small banks
 - Heavily rely on third-party providers
 - Lag behind in AI adoption
- G-SIBs
 - Own cybersecurity applications, but vulnerabilities can be similar

Attackers may rely on the same tools

- AI agents (so far) do not open new doors, they increase the speed and the scale of the attack
- Commonalities across attackers
 - Direct communication
 - Indirect via training AI agents
 - Hugging face

How will cybersecurity affect the organisation of the financial system?

Implications for Cyber Macroprudential Policy

Map dependencies and cascade effects:

- Critical nodes: systemically important institutions (CPMI-IOSCO cyber resilience toolkit for FMIs)
- Common dependencies: critical third-party providers

Stress-test cyber resilience

- Critical operations, recovery plans, incident-response and crisis-management procedures.
- ECB Cyber Resilience Stress Test announcement: 45% increase in cybersecurity investment across the banking sector (Abidi et al. 2026)
 - Laggard banks raised cyber investment by about 80% relative to peers

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