Fiscal threats in a changing global financial system

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London School of Economics
London, 27 November 2025

1. Introduction

Good evening. Thank you very much for inviting me to give this lecture. I am really delighted to be speaking here today.

The main focus of my lecture is on the combination of high government debt levels and the growing presence of non-bank financial institutions (NBFIs) in sovereign bond markets. This combination poses new financial stability challenges, which have both domestic and international components. These challenges call for a policy approach that combines a carefully selected mix of tools that spans fiscal, monetary and prudential policy.

2. The modern financial system: mounting public debt, rising NBFI footprint

Two major changes have reshaped the global financial system since the Great Financial Crisis (GFC) (BIS (2025b). The focus of financial intermediation has shifted from lending to the private sector towards financing governments. Partly as a result, NBFIs' footprint in sovereign bond markets has grown considerably, facilitated by short-term funding markets that enable the build-up of leverage in the financial system.

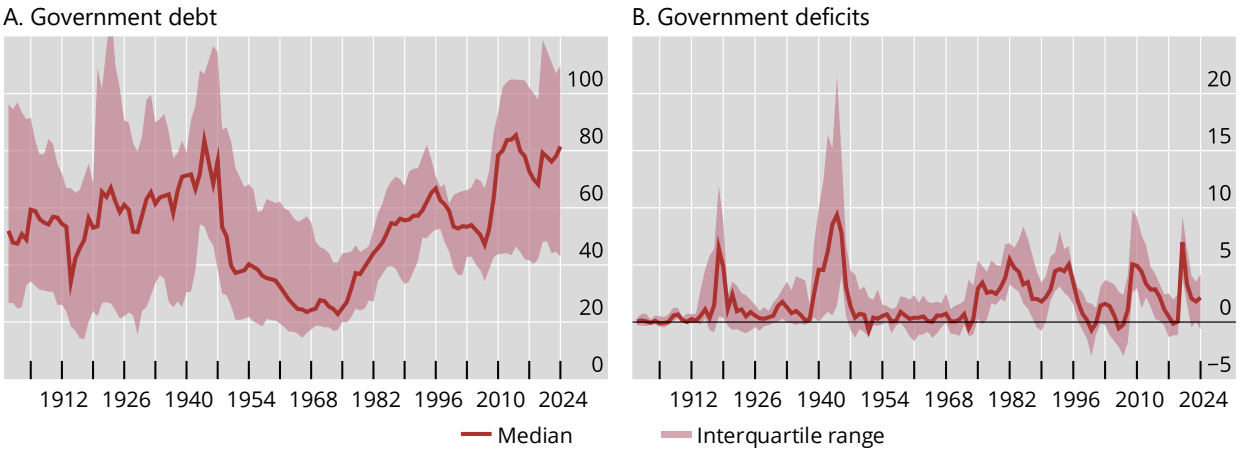
Rising public debt

Sovereign debt levels have increased considerably since the GFC (Graph 1). They have now reached historical post-World War II highs in many advanced economies (AEs). According to the IMF's latest baseline projections, debt levels are projected to rise further, reaching an average of nearly 120% of GDP in AEs and 85% in emerging market economies (EMEs) as soon as 2030 (IMF (2025)).

Government debt and deficits for advanced economies[1]

As a percentage of GDP

Graph 1



[1] The sample covers AT, AU, BE, CA, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, JP, LU, NL, NO, NZ, PT, SE and US, where data are available. Definitions may vary across time and countries. Estimates, if actual is not available.

Sources: European Commission; IMF; OECD; Finaeon; national data; BIS.

If we further consider the additional fiscal pressures on pension and medical costs arising from population ageing, as well as increasing defence needs and the green transition, the public debt outlook appears even more concerning (BIS (2025a)). Age-related expenditures are projected to grow rapidly over the next 25 years (IMF (2025)). Absent fiscal consolidation, this would push government debt to approximately 170% and 160% of GDP by 2050 in AEs and EMEs, respectively (Graph 2, dashed blue line). This is so even if interest rates remain below growth rates, as was the case in the pre-pandemic years. The sustainable energy transition and rising defence spending will further increase government expenditures. An illustrative projection that includes a rise in public spending by 2% of GDP on top of the increase in age-related spending results in public debt expanding by about an additional 40% of GDP by 2050 for both AEs and EMEs (Graph 2, dashed purple line).

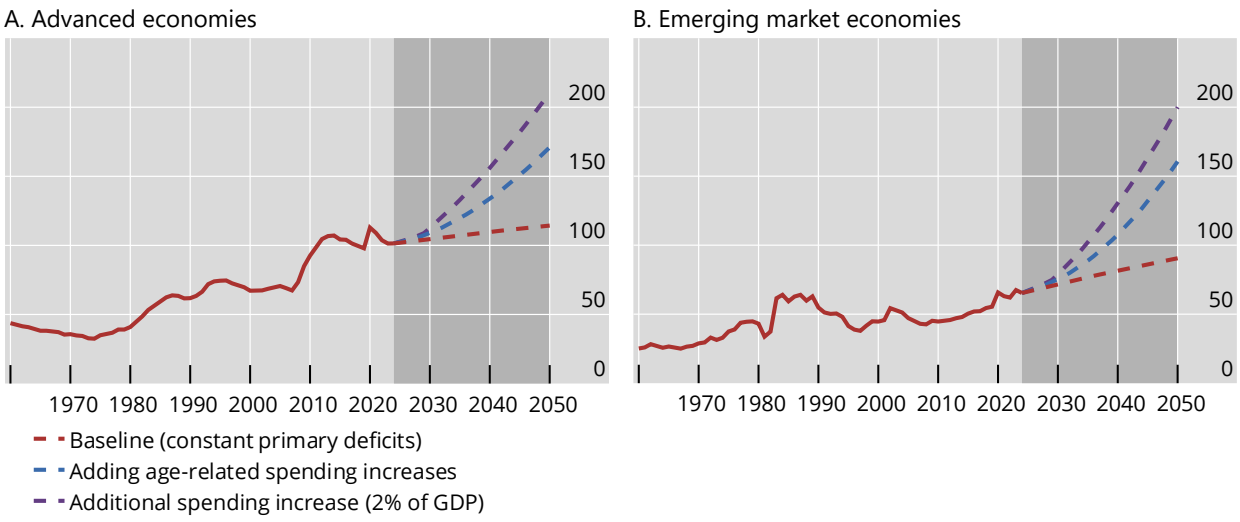
Moreover, interest rates may not return to the very low levels observed in the pre-pandemic decade. Indeed, current interest rates are already putting pressure on fiscal accounts. For instance, among OECD countries with relatively high interest payments, average payments have risen from 3% of GDP in 2021 to more than 4% in 2024 (Graph 3.A, blue line). A significant risk for debt sustainability is that bond yields could rise further, especially if inflation were to flare up again or if governments delay tackling large fiscal deficits. If interest rates remain at current levels, as governments refinance maturing bonds, the median debt service burden for major AEs and EMEs will rise by an additional half a percentage point of GDP, reaching close to 3% of GDP (Graph 3.B, blue dot). If inflationary pressures resume and rates return to their post-pandemic peaks, the median debt service burden will spike to 4% of GDP (orange dot), matching the record levels reached in the 1980s and 1990s.

Worryingly, the above projections do not take into account the consequences of potential major negative shocks (such as financial crises, pandemics and natural disasters) which have been

significant drivers of government debt increases in the past. While expansionary fiscal policy is an effective tool for tackling such negative shocks, the resulting deficits tend to be persistent because the associated recessions tend to be deep, and the subsequent recoveries long. Furthermore, political economy considerations make such deficits difficult to reverse. More broadly, the prevailing political process in many countries often results in deficit bias. This is especially true for slow-burn expenditure increases (such as spending on pensions and healthcare related to ageing) due to the well known political economy challenges of fiscal consolidation and sustainability reforms.

Public debt projections[1]

As a percentage of GDP — Graph 2



[1] Baseline projections assume an interest rate growth differential equal to –1% and constant primary deficits as a percentage of GDP as of 2024. Age-related spending is based on IMF projections for pension and healthcare spending for 2030 and 2050. For the additional spending increase scenario, it is assumed that the primary deficit will increase by 2% of GDP by 2030 and stay at that level afterwards. Historical debt is computed using a smaller set of countries when data are not available. Median across: AEs = AT, BE, DE, ES, FI, FR, GB, IE, IT, JP, NL, PT and US; EMEs = AR, BR, CL, CN, CO, CZ, HU, ID, IL, IN, KR, MX, PL and ZA.

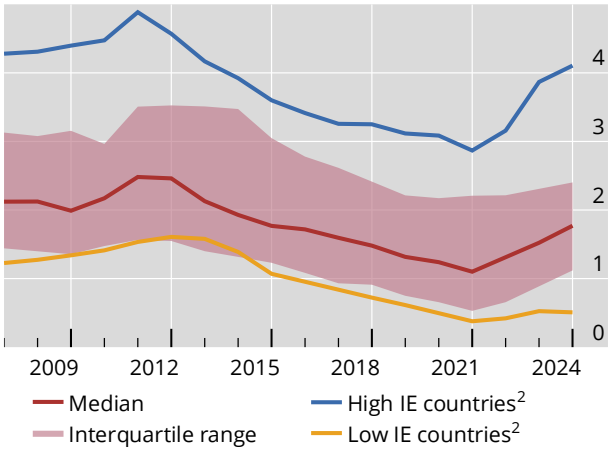
Sources: IMF; OECD; BIS.

Government interest expenses

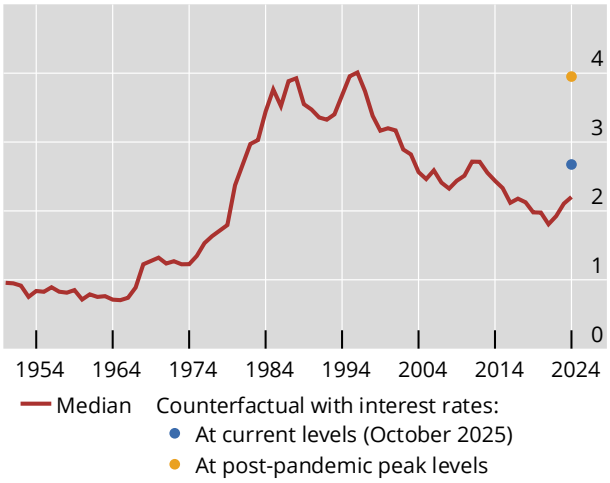
As a percentage of GDP

Graph 3

A. Interest expenses have risen since the pandemic...[1]



B. ...and could increase even further[3]



[1] The sample covers AT, AU, BE, CA, CH, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, JP, KR, LU, NL, NO, NZ, PL, PT, SE and US. [2] High/low interest expense (IE) countries are simple averages of the five countries where the interest expenses-to-GDP ratios were the highest/lowest in 2024. [3] Median across AR, AT, BE, BR, CL, CN, CO, CZ, DE, ES, FI, FR, GB, HU, ID, IE, IL, IN, IT, JP, KR, MX, NL, PL, PT, US and ZA. Counterfactuals are computed by multiplying end-2024 public debt-to-GDP ratios by the average of short- and long-term interest rates.

Sources: IMF; OECD; LSEG Datastream; national data; BIS.

Growing NBFI presence in sovereign debt markets

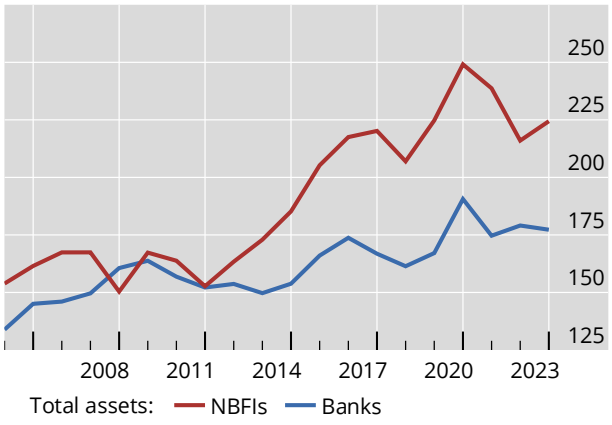
The surge in government debt levels has been accompanied by a major shift in intermediation patterns in the global financial system – away from banks towards NBFIs (Graph 4.A). Against the post-GFC backdrop of tighter bank regulation, banks retrenched from certain activities and moved towards more "balance sheet light" forms of intermediation as their balance sheet space became more costly. In the meantime, virtually all major parts of the varied NBFI universe expanded considerably. Investment funds and hedge funds grew most rapidly (Graph 4.B).

The combination of surging government bond issuance and the post-GFC retrenchment of banks gave rise to a steadily growing wedge between the supply of government bonds and bank dealers' assets underpinning the intermediation capacity in this market (Duffie (2020); Eren and Wooldridge (2021); Hauser (2021)). In the aftermath of the GFC and the Covid-19 pandemic, central bank quantitative easing absorbed a large share of the increase in government debt, helping ease pressure on yields (Eren et al (2023)). However, the subsequent quantitative tightening, combined with the decline in official reserve managers' sovereign debt appetite, increased the amount of government debt that had to be absorbed by the private sector (Graph 5.A). Against this backdrop, the recent increases in AE public debt have been primarily absorbed by NBFIs, which took centre stage from banks in sovereign debt markets (Graph 5.B).

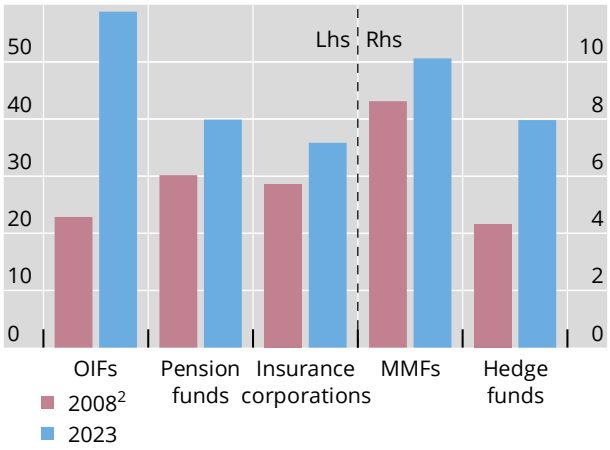
Financial intermediation has shifted from banks to NBFIs[1]

As a percentage of global GDP — Graph 4

A. Total global financial assets



B. NBFIs' financial assets, by institution type



MMFs = money market funds; NBFIs = non-bank financial institutions; OIFs = other investment funds (excluding hedge funds and MMFs).

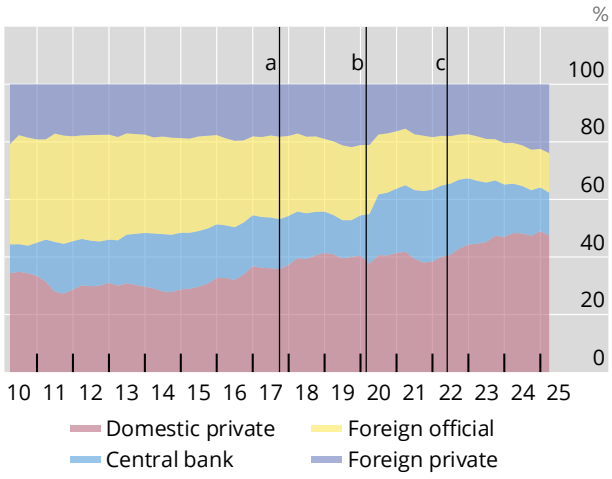
[1] For details, see the endnote for Graph 2 in Chapter II of the BIS *Annual Economic Report 2025*. [2] 2013 value for hedge funds.

Sources: FSB (2024); IMF; BIS (2025b).

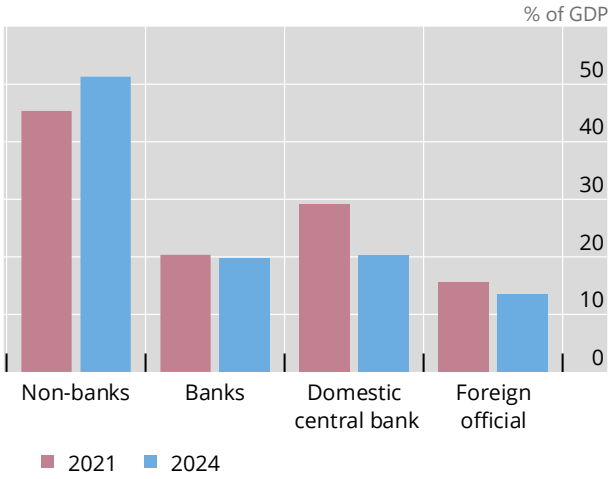
Sovereign debt holders

Graph 5

A. Share of US Treasuries, by sector of holder[1]



B. Holders of advanced economies' government debt[2]



[a] Quantitative tightening (October 2017). [b] Outbreak of Covid-19 pandemic (11 March 2020). [c] Quantitative tightening (June 2022).

[1] Foreign private holdings are adjusted for holdings of hedged funds in the Cayman Islands, computed by subtracting US domiciled hedge fund holdings in the Financial Accounts from holdings of all hedge funds reported in the Enhanced Financial Accounts, with the assumption that most foreign hedge funds are domiciled in the Cayman Islands. [2] Aggregate of AU, CA, CH, GB, IS, JP, LT, NO, NZ, SE, US and 16 euro area countries.

Sources: Arslanalp and Tsuda (2012); Barth et al (2025); US Financial Accounts; US Treasury International Capital (TIC) data.

When discussing NBFIs, it is important to be mindful of how diverse this group is. We need to distinguish between (i) "real money" NBFIs (or "long-term private investors"), such as pension funds and insurance companies; and (ii) highly leveraged NBFIs, in particular hedge funds. While both of these NBFI categories have increased their presence in government bond markets, they have done so using different approaches and strategies.

Against the backdrop of subdued demand from official reserve managers, long-term private investors have expanded their government bond holdings considerably since the GFC. This expansion has had a significant international dimension, which has manifested itself in a considerable rise in NBFIs' cross-border bond holdings across major world regions over the past decade (Graph 6). This expansion has been driven by long-term investors' need for diversification.

These institutions tend to have obligations in domestic currency but hold a globally diversified asset portfolio in several currencies. Currency hedging is therefore a key theme for long-term private investors, and the system has evolved to allow such hedging through FX swaps and forwards. FX swaps are essentially collateralised borrowing operations (BIS (2025b)). For example, a euro area pension fund can borrow US dollars to invest in dollar bonds by pledging euros as collateral, with a promise to unwind the transaction at a pre-agreed exchange rate.[1]

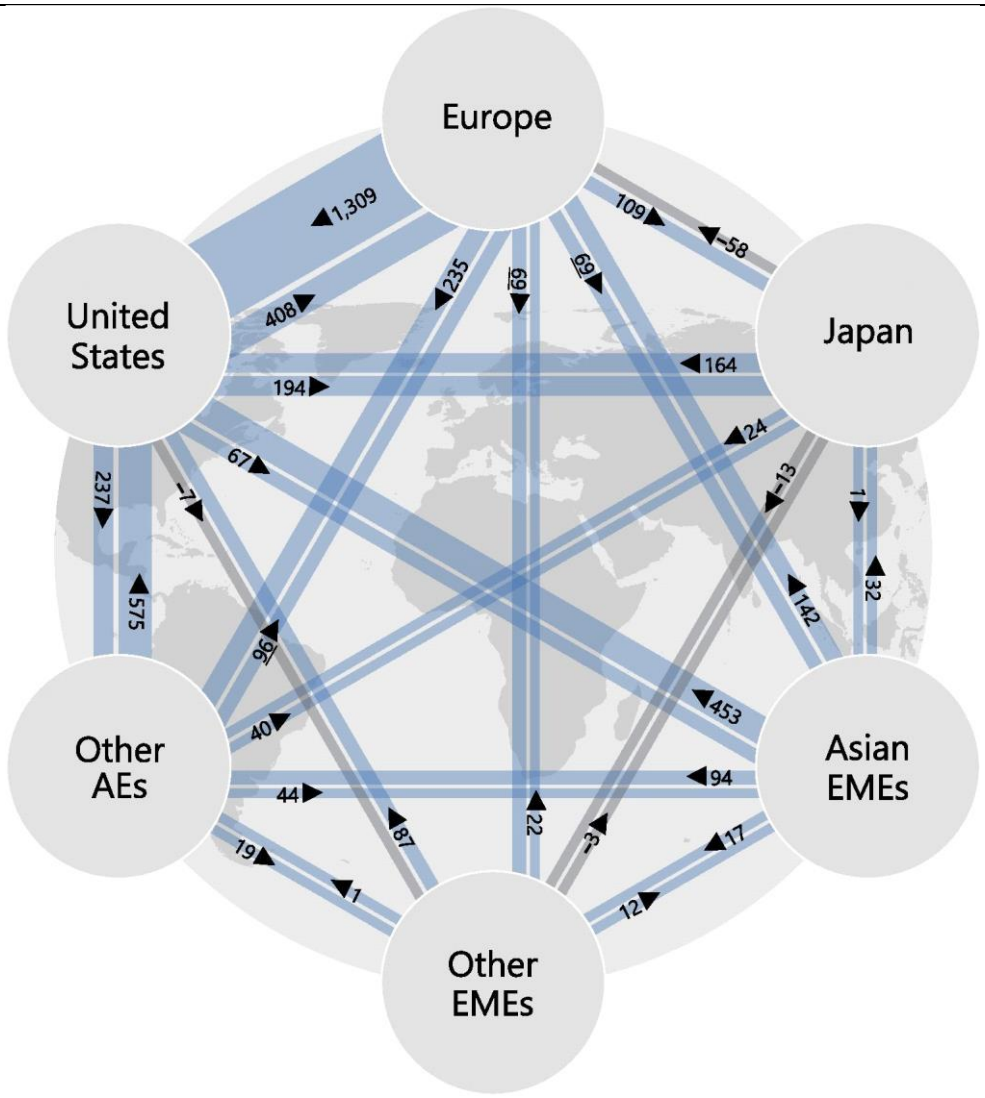
The FX swap market grew rapidly after the GFC and is now very large (Graph 7). Outstanding FX swaps (including forwards and currency swaps) reached $130 trillion in June 2025. The largest and fastest-growing segment of this market are contracts for financial use, mostly vis-à-vis NBFIs. This segment has more than tripled since 2009 (Graph 7.A). Most FX swaps are short-term. Indeed, three quarters of outstanding contracts have maturities shorter than one year (Graph 7.B).[2] This is primarily because these instruments are provided by banks, which mainly deal with short-term claims.

[1] More formally, an FX swap is an arrangement in which two parties exchange currencies at the spot rate today (spot leg) and agree to unwind that transaction (exchanging the full principal amount) at a pre-agreed exchange rate at some pre-agreed time (forward leg). Once the spot leg is complete, all that remains is the forward leg, at which point the FX swap becomes indistinguishable from an outright forward.

[2] Furthermore, turnover data (from the 2025 BIS Triennial Central Bank Survey of Foreign Exchange and Over-the-counter Derivatives Markets), suggest that 93% of FX swap and forward contracts have a maturity of three months or less, and 57% of one week or less.

Global cross-border bond holdings, excluding official reserves[1]

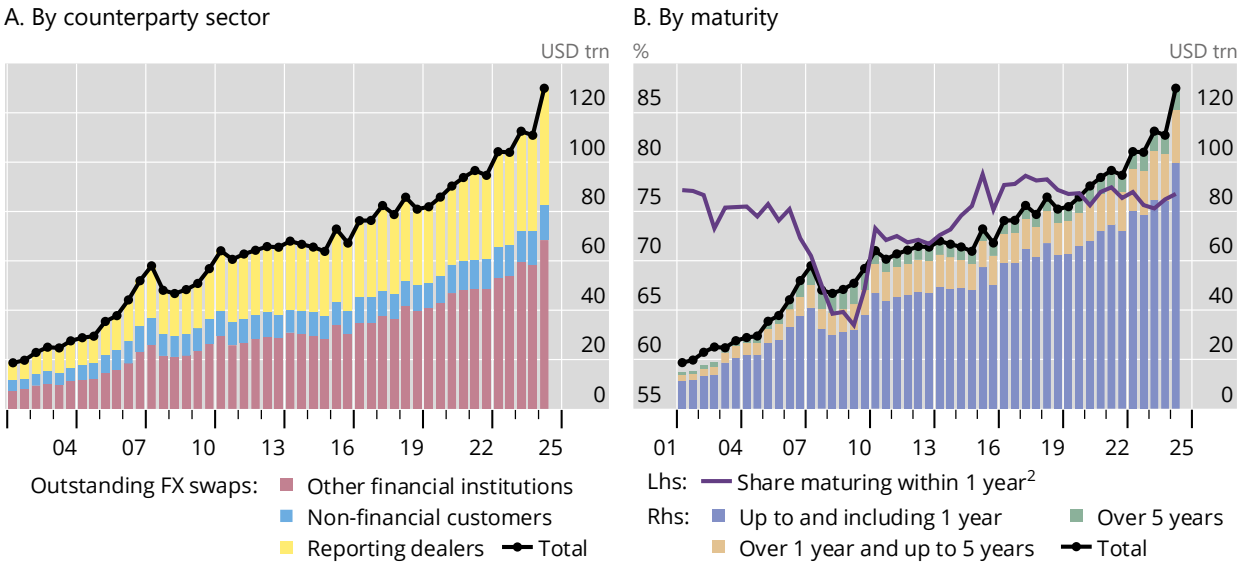
Changes in outstanding stocks over 2015–23, in billions of US dollars — Graph 6



[1] Changes in international portfolio debt investment holdings excluding official reserves. Blue (grey) arrows indicate increases (decreases) in holdings. The reported changes in outstanding stocks also include valuation effects. For details, see the endnote for Graph 4 in Chapter II of the BIS *Annual Economic Report 2025*.

Sources: IMF; BIS (2025b).

FX swaps[1] Graph 7



[1] Including FX swaps, outright forwards and currency swaps; notional amounts outstanding. [2] The share is calculated as a percentage of the data for which maturities are reported.

Source: BIS OTC derivatives statistics.

While long-term private investors have increased their presence in government bond markets considerably, they have not fully absorbed rising government debt issuance. This has been, at least in part, driven by rising concerns about the sustainability of fiscal trajectories and deteriorating creditworthiness of some AE sovereigns. In addition, the hedging benefits of government bonds have declined due to weakening stock-bond correlations (Lombardi and Sushko (2023); Acharya and Laarits (2023); BIS (2025a)). This is reflected in lower convenience yields on US Treasuries – the premium investors place on holding these securities for their safety and liquidity (BIS (2025a)).

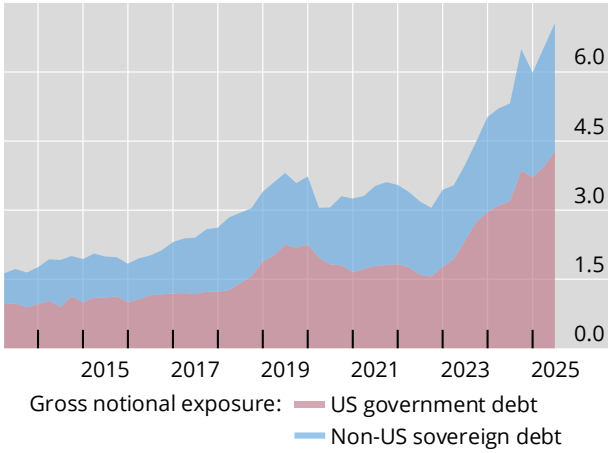
Leveraged NBFIs, and hedge funds in particular, have played an important role in filling the gap between the rapidly increasing supply of government bonds and the demand from banks and other NBFIs (Graph 8.A). This has been primarily incentivised by hedge funds' utilisation of relative value trading strategies, such as the cash-futures basis trade, that seek to exploit small price differences between related financial instruments (Aramonte et al (2023); Barth and Kahn (2021)). To boost the returns on these small price differences, relative value hedge funds heavily leverage their positions. They do so by borrowing in the repo market to finance the purchase of the cash security and profit from the small price difference between the security and its corresponding futures contract (Graph 8.B). While these developments have been most notable in the United States, they have also taken place in several other major AE jurisdictions, including the euro area (Graph 9.A), Canada (Graph 9.B) and the United Kingdom (Bank of England (2025)).

Hedge funds' growing presence in sovereign debt markets, enabled by repo borrowing[1]

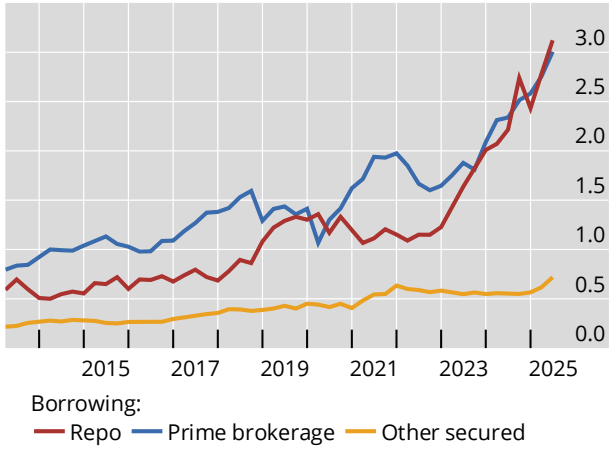
In trillions of US dollars

Graph 8

A. Hedge fund sovereign debt exposures[2]



B. Hedge fund borrowing sources[3]



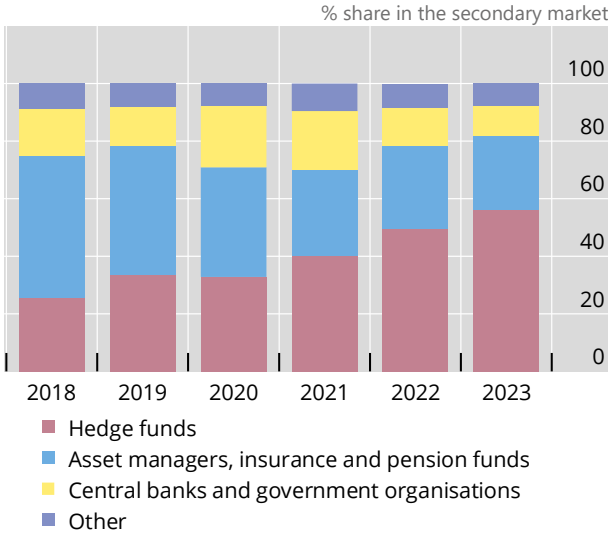
[1] Covers institutions operating in the United States with reporting requirements to the Securities and Exchange Commission. [2] Gross notional exposure is the sum of the absolute value of long and short exposures, including via holdings of cash securities and through derivatives. US data include Treasuries and agency and government-sponsored entities bonds. [3] Leverage sources are divided into repos (largely financing for fixed income securities), prime brokerage (largely financing for equity securities) and other secured borrowing (which largely includes securities lending transactions).

Sources: Ulland (2025); Office of Financial Research; BIS.

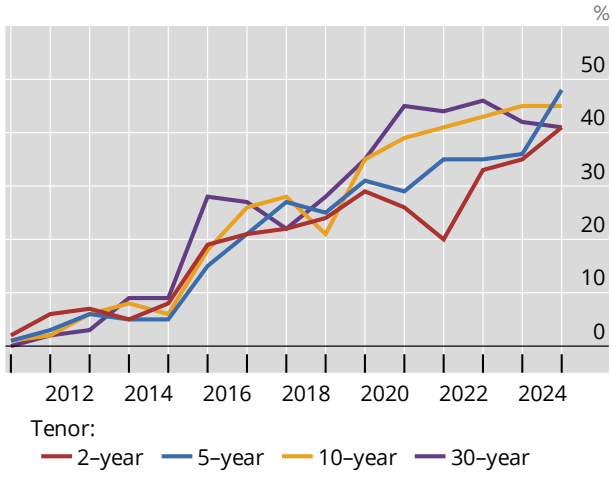
Hedge funds' growing presence in government bond markets outside the US

Graph 9

A. Electronic trading volumes by investor sector in the euro area government bond markets



B. Share of the auction value of Government of Canada bonds allocated to hedge funds, by tenor



Sources: Bank of Canada (2025); Ferrara et al (2024).

3. New financial stability challenges

The shift in financial intermediation from banks to NBFIs has had some positive aspects. It has diversified funding sources for borrowers and strengthened the overall resilience of the banking sector, which no longer engages in many of the risky activities pursued before the post-GFC tightening of bank regulation. The partial migration of some of those risky activities to real money NBFIs has decreased the likelihood of large price swings resulting in widespread deleveraging pressures. That said, the growing intermediation of record-high public debt levels by NBFIs introduces **significant new financial stability challenges**.

Textbook analyses of fiscal sustainability rely on accounting calculations based on key inputs such as the profile of primary deficits and interest rate-growth differentials. In theory, higher public debt levels can be sustainable in the presence of strong economic growth and low interest rates. Moreover, models that predict a strong demand for safe assets driven by population ageing (eg Auclert et al (2025)) suggest there may still be room for further increases in debt.

However, the **traditional analyses of sovereign yield dynamics do not factor in the risk-bearing capacity and balance sheet constraints of the financial intermediaries** providing credit to the government (Shin and Zampolli (2025)). Such financial constraints could precipitate stress in financial markets well before theoretical limits of sustainability are reached. Since investors are forward-looking, government bond risk premia are likely to increase, as government debt levels keep growing. Historical data show that adjustments in the interest-growth differential have been abrupt and unpredictable, especially when government debt levels are high (Lian et al (2020); Mauro and Zhou (2021)). Relatedly, yields also tend to be more responsive to adverse events when debt levels are larger (eg the 1994 "bond market massacre", the post-2009 Greek government debt crisis, the 2022 UK gilt stress episode).

The **greater presence of some NBFIs in sovereign bond markets increases the likelihood of sharp non-linear yield spikes** (ie "snapback risk"). More concretely, there are several channels through which NBFIs could generate and amplify stress in sovereign debt markets well before the theoretical limits implied by standard fiscal sustainability analyses are reached.

Some of those financial stress amplification channels have been around for a while. The first one is related to the role of duration matching by pension funds and insurance companies, which exacerbated the feedback loop of yield spikes and margin calls during the 2022 UK gilt stress episode (Aramonte and Rungcharoenkitkul (2022); Pinter (2023)). The second of those channels is linked to the way that many money market funds and open-ended funds use government bond holdings for liquidity management, which can lead to fire sales of those assets if there is a need to raise cash in response to a spike in redemptions (FSB (2021, 2023)). The third stress amplification channel is related to "original sin redux" (Carstens and Shin (2019)). When foreign NBFIs hold bonds denominated in the local currency of the issuer, exchange rate movements generate (hard currency) valuation losses, which can trigger portfolio outflows, raising government bond yields.

Since the above channels are well known, I would like to focus today on **a more novel set of potential financial stress amplification channels**, related to some NBFIs' heavy reliance on leverage and (on- and off-balance sheet) short-term dollar funding.

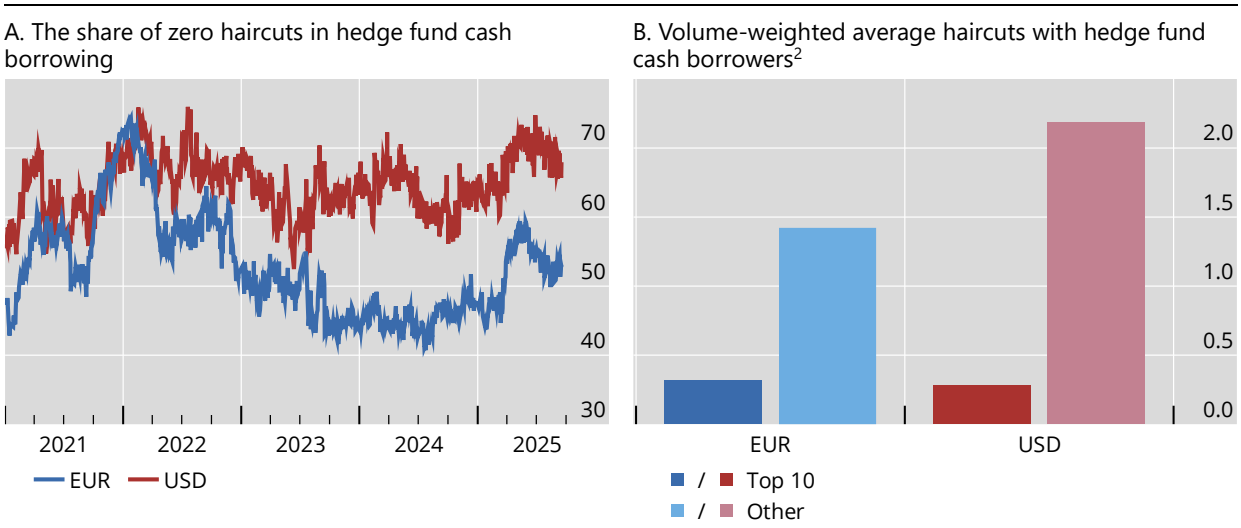
The **first of these channels** stems from **hedge funds' leveraged trading strategies**, which are facilitated by the availability of repo financing on very favourable terms. In recent years, hedge funds have been able to borrow amounts equal to or higher than the market value of the collateral provided – that is, without any discount, or haircut, protecting the cash lender from market risk (Hermes et al (2025a)). Around 70% of bilateral repos taken out by hedge funds in US dollars and 50% in bilateral repos in euros are offered at zero haircut, meaning that creditors are not imposing any constraint on leverage using government bonds (Graph 10.A). Larger hedge funds – those relative value funds typically involved in the basis trade – are especially prone to receive such favourable terms from their dealers relative to their smaller peers (Graph 10.B).

As a consequence, hedge funds' relative value strategies are highly vulnerable to adverse shocks in funding, cash or derivatives markets, as evidenced by recent episodes. During the market turmoil of March 2020, for instance, margin calls in Treasury futures markets triggered an unwinding of the trade, including holdings of Treasuries in the cash market, contributing to destabilising deleveraging spirals. More recently, a more orderly unwinding of relative value trades – this time tied to interest rate swap markets, where investors had bet on a narrowing in spreads due to perceptions of potential regulatory loosening – seems to have contributed to the heightened volatility observed in Treasury markets in early April 2025 (Sushko and Todorov (2025); Ehlers and Todorov (2025)).

Low haircuts are concentrated among large hedge funds[1]

In per cent

Graph 10



[1] Based on outstanding data. Bilateral transactions with investment funds as cash borrowers, with specific collateral, no net exposure and bilateral segment only. [2] The top 10 hedge funds are identified as those with the highest average daily outstanding volumes over the sample period in panel A.

Sources: Hermes et al (2025b); The Securities and Financing Transactions Data Store (SFTDS).

The **second novel financial stress amplification channel** is linked to long-term private investors, such as asset managers, pension funds and insurance companies. Despite not being highly leveraged, these internationally active financial intermediaries also face considerable short-term **dollar funding rollover risks related to their use of FX derivatives**. The short-term nature of FX swaps implies that investors who use these instruments to hedge currency risk for long-dated

securities are taking on maturity mismatches between long-term assets and short-term financing (Nenova et al (2025)). As a consequence, by using FX swaps they are de facto transforming currency risk into maturity risk. Thus, while FX swaps facilitate funding and hedging of large cross-border positions, they also expose NBFIs to significant short-term rollover risks and potential funding squeezes.

The **third novel financial stress amplification channel** stems from the fact that the **repo market and the FX swap market are closely linked to each other**. Major dealer banks are the key suppliers of short-term dollar funding in both markets. And while FX swaps are off-balance sheet instruments that do not count towards total assets, both repos and FX swaps are forms of collateralised lending and count towards the risk budget of major dealer banks. If stress in the repo market lowers banks' risk-taking capacity or disrupts their funding, they are likely to pull back from the FX swap market. Thus, **stress in the repo market could quickly spread to the FX swap market**, and vice versa. Given the nature of the FX swaps, if banks do not roll over FX swaps, asset managers will have to come up with the full notional amounts of the underlying contracts in order to close them. This could cause a global scramble for dollars, similar to what we saw in March 2020. Thus, the traditional bank-sovereign nexus (Acharya et al (2014); de Bruyckere et al (2013); Fratzscher and Rieth (2019)) has now evolved into **a broader nexus linking (bank and non-bank) financial institutions and sovereigns**.

4. Policy implications

Policymakers should address the above financial stability challenges by employing a carefully selected combination of tools in a targeted manner.

Regulation and supervision

Limiting NBFI leverage when it gives rise to financial stability concerns should be a primary policy objective. As I noted earlier, hedge funds' leveraged (relative value) strategies are highly vulnerable to adverse shocks. More generally, the build-up of NBFI leverage, especially when enabled by short-term funding, can result in destabilising dynamics due to perverse feedback loops (Carstens (2021)). That is why reining in NBFI leverage should be a key policy priority.

The guiding principle should be to pursue "**congruent regulation**" when the vulnerabilities are similar across different types of financial institutions (including banks), while properly accounting for differences in business models and potential financial amplification risks. The regulatory framework needs to be sufficiently granular to adequately recognise differences among the very heterogeneous set of NBFIs and the extent to which they may contribute to systemic risks.

There are a number of activity- and entity-based policy tools that can be used depending on context (FSB (2025a)). Two specific measures could be particularly effective in addressing NBFI leverage: promoting greater use of central clearing and introducing minimum haircuts.

Greater use of central clearing for cash and repo markets would enhance the resilience of government bond markets (FSB (2022)). Central clearing addresses the aforementioned asymmetry present in bilateral markets, where haircuts for the largest hedge funds are smaller than for other participants because of market power. Additional benefits include the elimination of counterparty risk and risk reduction through netting of exposures. Last but not least, central clearing frees up balance sheet space for dealers (as they are only exposed to a clearing house), which boosts their intermediation capacity.

Of course, central clearing is not a panacea – there are also important challenges associated with it. These include increased systemic risk of central counterparties (CCPs) and procyclicality of margins. There are also unresolved questions around client access to CCPs.[3] Moreover, while clearing allows netting within a market, it reduces netting across markets (eg more netting within government bonds but less netting between government bonds and FX swaps).[4]

Imposing minimum haircuts would enhance the stability and resilience of the system. As I mentioned earlier, zero haircuts effectively allow certain market participants, such as hedge funds, to operate with as much leverage as they want. This creates a fragile environment where stress can have significant repercussions, especially since hedge funds are now key liquidity providers in sovereign bond markets.

Some market participants argue that haircuts are set at the portfolio level rather than the trade level. However, it is unlikely that this can be done effectively because dealers often lack a complete view of their clients' exposures. Furthermore, correlations within a portfolio could break down in response to market-wide factors or stress episodes, leaving counterparties much more exposed than they originally anticipated. Moreover, haircuts are still very low when stripping out repos that form part of a portfolio of trades (Hermes et al (2025a)). In any case, dealers could allocate haircuts to specific trades within an overall portfolio.

Minimum haircuts should be applied in a targeted manner. In many repo transactions, haircuts are intended to protect not the cash lender but rather the collateral provider (ie the cash borrower). A uniform application of minimum haircuts could inadvertently favour one side of the trade – cash lenders or collateral lenders – while failing to effectively address leverage build-up in the most critical areas.[5]

Taking a broader perspective, the potential stress propagation mechanisms that I described have important implications for the regulation of banks. They illustrate that **the more we highlight**

[3] For risk management purposes, CCPs need to restrict the type of entities that can clear their product. Firms that are not direct participants in a CCP must thus rely on their respective trade's member of the CCP. There are different ways in which such access can be gained (direct and sponsored), with implications for who bears the risk of default (CPMI-IOSCO (2022)).

[4] As the exposure at default to a portfolio of derivatives is lower than the sums of the exposures at default of the individual elements of the portfolio, there are benefits of netting exposures across multiple products. If only a subset of products are centrally cleared, this benefit diminishes (Pirrong (2011)).

[5] For example, imposing minimum haircuts uniformly risks favouring cash lenders at the expense of collateral lenders' ability to secure the return of their collateral assets.

NBFI risks, the more we circle back to the importance of bank risks. This underscores the **critical importance of banking regulation for the stability of NBFIs**.

Due to the "bank-NBFI nexus", bank regulation can be an important tool to ensure bank financing to NBFIs is provided on a prudent and sustainable basis. Loosening bank regulation can induce banks to further increase the availability of "runnable" short-term funding to NBFIs on favourable terms. This would add even more fuel to the unrestrained growth in NBFI leverage, thus exacerbating the financial stability risks I described.

It is worth recalling that in 2015 the Financial Stability Board (FSB) issued a framework for haircuts on non-centrally cleared securities financing transactions (FSB (2015)). To date, the implementation of this framework continues to face significant delays in most jurisdictions (FSB (2025b)). I would like to take this opportunity to urge jurisdictions to implement measures to ensure that adequate haircuts are applied to securities financing transactions involving NBFIs.

To properly oversee, regulate and supervise NBFIs, **policymakers need to have high-quality data**. Unfortunately, there is **considerable opacity** in many of the key markets in which NBFIs are active, thereby preventing a consolidated global view of the size of these markets and the key exposures. For example, while the BIS derivatives statistics allow us to track global activity in FX swaps, there are still many significant data gaps. Most notably, in order to track financial vulnerabilities more effectively, we need to have data with directional positions by currency (Avdjiev et al (2025)). In addition, we need more information about the "geography" of payment obligations stemming from FX derivatives (ie the country and sector of the obligors). Similarly, there are important blind spots in repo markets despite the fact that there have been illuminating new studies on various key dimensions based on new data collections, such as dealer surveys by the US Office of Financial Research and the Eurosystem's Securities and Futures Trade Data Repository (SFTDR). Closing the above data gaps as quickly and comprehensively as possible should be a major policy priority. **The BIS and the FSB have been actively working with individual jurisdictions to close those gaps** as much as possible.

Monetary policy and lender of last resort

Price stability remains the key goal for monetary policy and the most effective way to support debt sustainability by reducing inflation risk premia. Against the backdrop of rapidly deteriorating sovereign creditworthiness, the need for credible monetary policy and central bank independence is stronger than ever. While monetary policy credibility does not fundamentally address the fiscal problem, it is critical for diminishing the associated inflationary risks (Brandao-Marques et al (2024)).

This also implies that higher inflation cannot sustainably ease public debt burdens. Unexpected bursts of inflation can reduce debt-to-GDP ratios and deficits, as seen during the post-pandemic inflation spike. However, the inflation surprise would have to be very large to have a meaningful impact on debt ratios and deficits. Furthermore, when inflation is expected it tends to have a small effect, as key variables, like interest rates and public sector wages, adjust. The country may end up being worse off as risk premia would be persistently higher. In sum, tolerating higher

inflation – perhaps by being behind the curve – would produce small benefits in terms of debt reduction but involve large risks in terms of inflation expectation de-anchoring and higher term premia.

There are also important questions about the effects of central bank emergency interventions. In order to fulfil their obligation as the ultimate guardians of the financial system, central banks may have to occasionally intervene in a targeted manner to preserve market functioning and contain systemic risks (Markets Committee (2022)). In the context of the risks related to internationally active NBFIs' significant reliance on FX swaps, **central bank swap lines remain critical to stabilise the global financial system at times of acute distress**.

Emergency interventions by central banks have drawbacks. They can fuel moral hazard by shifting NBFIs' underlying risk-reward calculus. More concretely, they can cut off the left tail of the return distribution by ruling out the worst possible losses, thus encouraging hedge funds to take on even more leverage (Shin (2025)). In addition, central bank emergency liquidity assistance comes with implementation challenges and side effects (Carstens (2021)). Most notably, it may conflict with other policy objectives. For example, turmoil may arise precisely when a flare-up in inflation calls for monetary policy to be tightened.

That said, policymakers have tools to deal with the drawbacks of emergency central bank interventions. The most appropriate way to **minimise the moral hazard** associated with central bank emergency interventions is to **ensure that NBFIs are well prepared to withstand high levels of stress on their own**. The most reliable way to achieve this is through **effective ex ante financial regulation**. In that context, the expectation of central bank emergency interventions should go hand in hand with effective NBFI regulation (Carstens (2021)). Furthermore, **dealing with conflicting policy objectives could be addressed by careful design of the respective programmes and facilities** (Hernández de Cos et al (2024)). Policymakers should clearly distinguish between quantitative easing for market functioning and monetary stimulus. Programmes involving central bank bond purchases for market functioning should incorporate penalty fees as well as conditions for exit and expiration. Careful ex ante design of the programmes would allow for their quick implementation in a crisis while minimising their negative side effects.

Fiscal policy

While sound financial regulation and prudent monetary policy are critical for mitigating the macro-financial risks associated with historically high debt levels, **ensuring sustainable fiscal trajectories is essential** to tackle those risks at their core. Counting on achieving fiscal sustainability through substantial artificial intelligence-driven increases in potential growth or a return to pre-pandemic low interest rates would be too risky.

That is why **fiscal consolidation remains critical to ensure that public debt is placed on a sustainable trajectory**. Governments need to adopt a prudent approach and strike the optimal balance that allows them to stabilise debt and rebuild fiscal buffers, while pursuing growth-friendly policies.

Evidence shows that **consolidation is more likely to succeed when it is gradual enough to not hamper economic growth**. Timing is important: consolidation should ideally take place when financial conditions are still easy and growth above or around trend (IMF (2025)). Credibility is key for gradualism. This can be enhanced through fiscal rules and independent fiscal councils. Anything that causes a spike in borrowing costs would work against gradualism. Furthermore, fiscal consolidation plans should also pay due attention to the composition of public expenditures with an eye on supporting potential growth.

Last but certainly not least, **fiscal consolidation should be accompanied by structural reforms** (Carstens (2025)). Such reforms would make aggregate supply more nimble, increase productivity and boost economic growth, including by incentivising the energy transition. The focus should be on three key areas: bolstering labour and product market flexibility, reducing barriers to trade and enhancing public investment in infrastructure, as well as in research and development. By laying the groundwork for sustainable, long-term growth, these reforms will help make the necessary fiscal consolidation more successful, which would in turn go a long way towards alleviating the new financial stability challenges that I discussed this evening.

5. Concluding remarks

Let me conclude.

The global financial system has undergone profound structural changes since the GFC. Against the backdrop of rapidly increasing government debt levels, the focus of financial intermediation has shifted from lending to the private sector towards financing governments. This has been accompanied by a considerable rise in the presence of NBFIs in sovereign bond markets. NBFIs' growing footprint has been facilitated by short-term funding markets, which have enabled a significant build-up of leverage in the financial system.

These developments pose serious financial stability challenges, which have both domestic and international aspects. In tranquil times, NBFIs' greater presence in sovereign bond markets increases liquidity and lowers governments' financing costs. However, this greater presence also increases the likelihood of sharp non-linear sovereign yield spikes through a number of channels.

While some of those stress amplification channels are well known, three of them are more novel. The first one stems from hedge funds' leveraged trading strategies, which are facilitated by the availability of repo financing on very favourable terms. The second is related to the fact that by using FX swaps (which tend to have very short maturities) to hedge currency risk, many real money NBFIs are also exposing themselves to rollover risk and funding squeezes. The third novel channel stems from the close linkages between the repo market and the FX swap market, implying that stress in one can quickly spill over to the other.

Policymakers should address these challenges by employing a carefully selected mix of tools that spans fiscal, monetary and prudential policy. Prudential and fiscal policy should operate in unison. Effective prudential policy would increase the marginal costs of the relative value trades employed by leveraged NBFIs. While this would drive up sovereign bond yields, disciplined fiscal policy

would reduce the associated strain on the government. In this sense, the two polices are complementary. In the meantime, the main goal for monetary policy should remain price stability, since reducing inflation risk premia is the most effective way to support debt sustainability. Last but not least, the most appropriate way to minimise the moral hazard associated with central bank emergency interventions is to use effective ex ante financial regulation in order to ensure that NBFIs are well prepared to withstand high levels of stress on their own.

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