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# Enhancing the Resilience of Nonbank Financial Intermediation

## Progress report

9 July 2025

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# Executive summary

Conjunctural and structural developments in the global financial system over the past decade have increased the reliance on market-based intermediation. Nonbank financial intermediation (NBFI) has grown to almost half of global financial assets and become more diverse. As a result, the importance of NBFI for the financing of the real economy has increased. However, the experience of the 2008 global financial crisis, the March 2020 market turmoil and more recent episodes of market stress demonstrated that NBFI can also create or amplify systemic risk.

Drawing on the lessons from these events, the FSB developed a work programme to enhance the resilience of the NBFI sector. This is intended to ensure a more stable provision of financing to the economy and reduce the need for extraordinary central bank interventions. In particular, the aim of policies by the FSB and standard-setting bodies (SSBs) has been to reduce excessive spikes in the demand for liquidity; enhance the resilience of liquidity supply in stress; and enhance risk monitoring and the preparedness of authorities and market participants. To date, these policies have involved largely repurposing existing policy tools rather than creating new ones, given the extensive micro-prudential and investor protection toolkit already available.

The work carried out to date largely completes the original policy elements of the NBFI work programme and therefore the FSB is shifting its focus on NBFI to implementation monitoring and the ongoing assessment of vulnerabilities in this sector. Key policy deliverables have focused on enhancing money market fund resilience (2021); addressing liquidity mismatch in open-ended funds (2023); enhancing nonbank market participants' liquidity preparedness for margin and collateral calls (2024); and enhancing the monitoring of and addressing financial stability risks created by leverage in NBFI (2025).

The implementation of these reforms continues to advance, albeit at an uneven pace across jurisdictions. The heterogeneity of the sector, diversity of institutional frameworks and market practices across jurisdictions, and common data challenges mean that progress has differed across jurisdictions. While implementation is ongoing, the vulnerabilities from leverage and liquidity mismatches in parts of the NBFI sector that gave rise to recent market stress episodes remain. Full implementation should limit any reliance of market participants on extraordinary central bank and other official sector interventions and help authorities better prepare for stress events.

The report concludes by outlining further work to assess and address systemic risk in NBFI that the FSB, in collaboration with its member SSBs and international organisations, will carry out. The work is structured in four main areas: in-depth assessment and ongoing monitoring of vulnerabilities in NBFI; work to address data challenges; information sharing and supervisory discussions on authorities' policy approaches to enhance NBFI resilience; and monitoring the implementation and assessing the effects of NBFI reforms. This work will help the FSB determine in due course whether collectively the reforms have sufficiently addressed systemic risk in NBFI, including whether to develop additional tools for use by authorities. Table 1 below provides an overview of the FSB's ongoing and planned work under the NBFI work programme.

**Table 1: Ongoing and planned work under the FSB's NBFI work programme**

| Topic | Deliverable | Timing |
|---|---|---|
| Assessing vulnerabilities in NBFI | FSB to analyse the functioning and resilience of repo markets, including interlinkages with core bond markets | End-2025 |
| | FSB to examine vulnerabilities in private credit | 2026 |
| | FSB to continue to enhance NBFI vulnerabilities indicators in its surveillance and the Global Monitoring Report on NBFI, reflecting the findings from NBFI work | Ongoing |
| Addressing data challenges | FSB to finalise work on addressing data challenges related to leveraged trading strategies in sovereign bond markets | 2026 |
| Policies to enhance NBFI resilience | IOSCO to revisit its Policy Recommendations for MMFs in light of the framework and policy toolkit in FSB report | TBD |
| | FSB information sharing and supervisory discussions on authorities' policy approaches to address systemic risk in NBFI | Ongoing |
| Monitoring implementation and assessing the effects of NBFI reforms | FSB, working with IOSCO, to assess the effectiveness of MMF reforms in addressing risks to financial stability | End-2026 |
| | FSB and IOSCO to take stock of the OEF policy measures adopted by FSB member jurisdictions and assess the effectiveness of their respective revised recommendations in addressing risk to financial stability | End-2026 and end-2028 respectively |
| | FSB to monitor the progress made by member jurisdictions in implementing the FSB recommendations on liquidity preparedness for margin and collateral calls, to be potentially followed up, once implementation is sufficiently advanced, with an assessment of the effectiveness of jurisdictions' policy measures. | TBD |
| | FSB to work with SSBs to assess, in due course, whether agreed and implemented reforms have sufficiently addressed systemic risk in NBFI, including whether additional policy tools are required | TBD |
| | FSB to publish progress report with main findings of NBFI initiatives and next steps | 2026 |

# 1. Introduction

The experience of the 2008 global financial crisis (GFC), the March 2020 market turmoil, and more recent episodes of market stress have demonstrated that NBFI can create or amplify systemic risk and underscored the need to take policy measures to enhance the sector's resilience. The FSB is working with SSBs across a broad range of areas to assess and address vulnerabilities in NBFI that can give rise to systemic risk.

The FSB first developed a framework and policy toolkit in 2013 for strengthening the oversight and regulation of nonbank entities. The framework, which was endorsed by the G20, identifies areas in which policies are needed to mitigate the potential systemic risk associated with NBFI.[1] Implementation of these reforms is advancing but at an uneven pace across jurisdictions.[2]

Many of the activities and structures considered to have made the financial system more vulnerable and that contributed to the GFC have declined significantly.[3] However, NBFI developments since then mean that new types of activities and risks have emerged. In particular, changes in the global financial system have increased reliance on market-based intermediation. NBFI has grown to almost half of global financial assets and has become more diverse (Graph 1). As a result, the importance of NBFI for the financing of the real economy has increased.[4] Underlying drivers for this growth include long-term demographic trends leading to asset accumulation; macro-financial factors, such as fiscal and monetary policies; rising valuations; and post-GFC reforms, which have increased the relative cost of bank-based finance.

The FSB's Holistic Review of the March 2020 market turmoil provided the starting point for the current, second set of NBFI reforms at the international level. The breadth and dynamics of the economic shock and related liquidity stress during that event were unprecedented. Key funding markets experienced acute stress and public authorities needed to take a wide range of measures to restore market functioning and to support the supply of credit to the real economy.[5] The exceptional measures taken to restore market confidence and functioning meant that public authorities had to take on material financial risk and prompted concerns about moral hazard. Subsequent changes in the macroeconomic environment and additional market events – such as the failure of Archegos Capital Management in March 2021, the 2022 turmoil in certain commodities markets, the September 2022 stress in the UK government bond market driven by liability-driven investment (LDI) funds, and the April 2025 market volatility episode – have further highlighted the potential for NBFI-related activities and entities to cause systemic liquidity imbalances and propagate stress.

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1 See FSB (2013), *Overview of Policy recommendations for Shadow Banking*, August. These policies seek to: mitigate spillovers between banks and the NBFI sector; reduce the susceptibility of MMFs to runs; align incentives associated with securitisation; dampen financial stability risks and pro-cyclical incentives associated with securities financing transactions (SFTs); and mitigate systemic risks posed by other nonbank entities and activities. The policy framework for other nonbank entities and activities was expanded in 2017 with the FSB recommendations to address structural vulnerabilities in asset management, followed in 2018 by the IOSCO recommendations on liquidity risk management for OEFs.

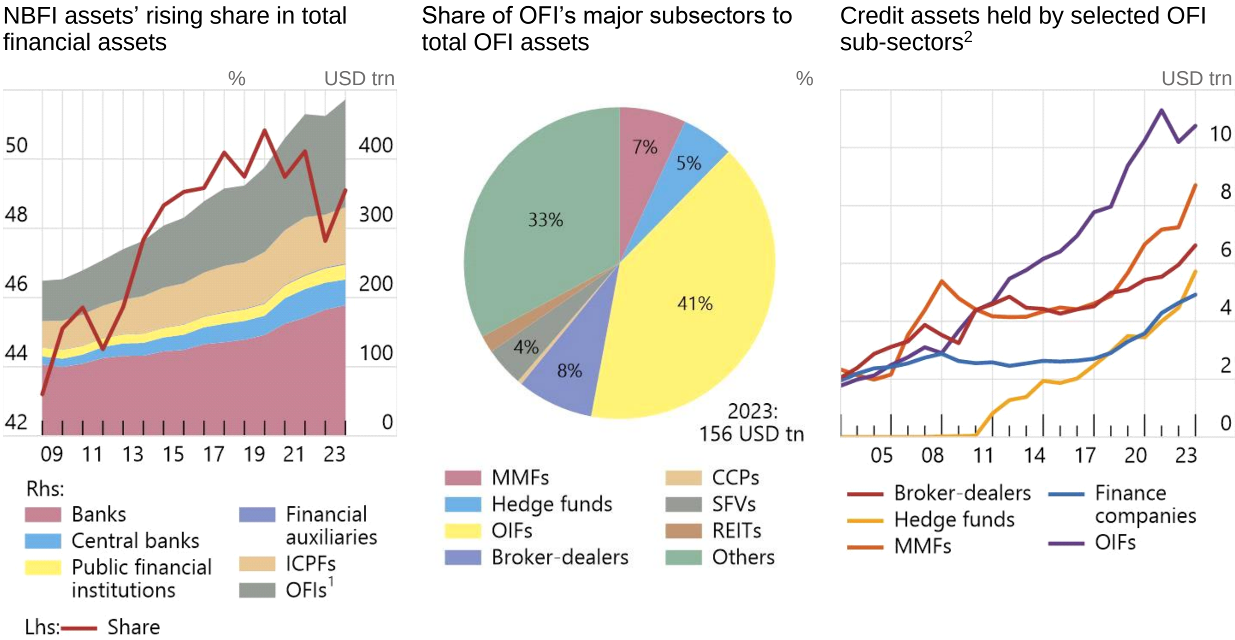
2 See FSB (2024), *Promoting Global Financial Stability: 2024 FSB Annual Report*, November.

3 These include, for example, ABCP conduits, SIVs, subprime RMBS and CDOs. See FSB (2017), *Assessment of shadow banking activities: risks and the adequacy of post-crisis policy tools to address financial stability concerns*, July; and FSB (2025), *Evaluation of the Effects of the G20 Financial Regulatory Reforms on Securitisation: Final report*, January.

4 See FSB (2024), *Global monitoring report on non-bank financial intermediation 2024*, December.

5 See FSB (2020), *Holistic Review of the March Market Turmoil*, November.

**The NBFI sector has grown and evolved considerably in recent years** **Graph 1**




CCPs = central counterparties; ICPFs = insurance corporations and pension funds; MMFs = money market funds; OFIs = other financial intermediaries; OIFs = investment funds other than MMFs and hedge funds; REITs = real estate investment trusts and real estate funds; SFVs = structured finance vehicles. Data used in the charts above covers 21 jurisdictions and euro area.

[1] OFIs (other financial intermediaries) is a subset of the NBFI sector, comprising all financial institutions that are not central banks, banks, public financial institutions, insurance corporations, pension funds, or financial auxiliaries. OFIs include, for example, investment funds, captive financial institutions, and money lenders (CFIMLs), CCPs, broker-dealers, finance companies, trust companies and structured finance vehicles. [2] Increases of aggregated data may also reflect improvements in the availability of data over time at a jurisdictional level.

Sources: FSB (2024), *Global Monitoring Report on Non-Bank Financial Intermediation 2024*; FSB calculations.

With the overall growth of debt markets and NBFI, funding and market liquidity have become more central to financial resilience. Drawing on the experience of recent market stress events, the FSB developed a framework for assessing NBFI vulnerabilities that identifies certain activities and types of entities (so-called 'key amplifiers') as key for resilience (see Annex 1).[6]

Using this framework and building on the lessons from the March 2020 market turmoil, the FSB developed an NBFI work programme to examine and, where appropriate, address specific issues that contributed to the amplification of the shock; to enhance understanding and strengthen the monitoring of systemic risk in NBFI; and to assess policies to address systemic risk in NBFI. Enhancing NBFI resilience is intended to ensure a more stable provision of financing to the economy and reduce the need for extraordinary central bank interventions. Such efforts should not compromise the resilience in other parts of the financial system or the important role that NBFI plays in financing the real economy.

This year's report describes recent, ongoing and planned work by the FSB and SSBs to address systemic risk in NBFI. Section 2 presents the main findings of the work over the past year to assess and address specific NBFI vulnerabilities, while section 3 describes the way forward.

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[6] See FSB (2021), *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report*, November; FSB (2022), *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report*, November; FSB (2023), *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report*, September; and FSB (2024), *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report*, July.

# 2. Assessing and addressing systemic risk in NBFI

## 2.1. Policy deliverables to date

The aim of policies by the FSB and SSBs to address systemic risk in NBFI is to reduce liquidity demand spikes; enhance the resilience of liquidity supply in stress; and enhance risk monitoring and the preparedness of authorities and market participants (see Box 1). These policies include revising or adding to existing international standards by the FSB and SSBs or providing further guidance as needed; identifying other potentially useful policy options that individual authorities may wish to consider based on their particular market structure and context; and carrying out additional analytical work to assess and, as appropriate, address issues identified in the NBFI work to date. Any changes to international standards or guidance will involve close coordination with relevant SSBs and outreach with stakeholders, including through public consultation.

**Box 1: Policy objectives and approach of NBFI work programme**

The main focus of FSB policy work to enhance NBFI resilience in recent years has been to reduce excessive spikes in the demand for liquidity. To date, the policy proposals to address systemic risk in NBFI have involved largely repurposing existing policy tools (e.g. on liquidity management and margining) rather than creating new ones, given the extensive micro-prudential and investor protection toolkit already available.

Policies to enhance resilience of liquidity provision in stress are also very important, though they have been more difficult to implement as they require longer-term structural changes and tend to be country-specific. In addition, some of the policies aiming to reduce excessive spikes in the demand for liquidity may support the provision of liquidity during stress periods, for example, by reducing procyclical behaviour of certain NBFI liquidity providers.

Measures to enhance the risk monitoring and preparedness of authorities and market participants include addressing identified data challenges, enhancing transparency and information sharing, and developing additional risk metrics and analytical tools for monitoring.

Key policy deliverables of the NBFI work programme to date include (see Table 2 and below):

- **Liquidity demand** – FSB policy proposals in 2021 to enhance the resilience of MMFs; revised FSB policy recommendations in 2023 to address liquidity mismatch in OEFs (complemented by IOSCO guidance on anti-dilution liquidity management tools); policy recommendations in 2025 by the BCBS-CPMI-IOSCO to enhance margining practices and by the FSB to enhance the liquidity preparedness of nonbank market participants for margin and collateral calls; and policy recommendations in 2025 to address financial stability risks created by leverage in NBFI.

- **Liquidity supply** – FSB reports have identified certain reforms that individual authorities may wish to explore for their domestic government bond markets (2022), complemented by similar work by IOSCO on corporate bond markets; to address vulnerabilities in emerging market economies stemming from reliance on USD funding (2022); and to enhance the functioning and potentially the resilience of commercial paper (CP) and negotiable certificates of deposit (CD) markets (2024).

- **Risk monitoring and preparedness** – The FSB, in collaboration with SSBs, is developing additional metrics and new analytical tools to monitor NBFI vulnerabilities on an ongoing basis. The FSB has also assessed vulnerabilities in specific NBFI segments through targeted deep dives, e.g. on liquidity mismatch in OEFs (2021), commodities markets (2022), government bond markets (2022), CP and CD markets (2024), and repo markets (ongoing).

The NBFI work programme deliverables interact with and seek to reinforce each other, reflecting the need for a system-wide approach. Better monitoring of NBFI vulnerabilities should enhance the authorities' ability to identify and address potential financial stability concerns at an early stage, including any spillovers to other parts of the financial system. Policies to reduce excessive spikes in the demand for liquidity aim to address the vulnerabilities that drive those spikes (e.g. by reducing liquidity mismatch or the build-up of leverage) or mitigate their financial stability impact (e.g. by enhancing the liquidity preparedness of market participants to meet margin calls). These are complemented by policies to enhance resilience of liquidity provision in stress that, while typically jurisdiction-specific and longer-term in nature, can enhance the ability of bank and nonbank liquidity providers to absorb spikes in liquidity demand during times of stress.

Experience with the use of policy tools to address systemic risk in NBFI is limited to date. To this end, the FSB will discuss experiences and lessons of work by its member authorities on the design and use of tools – micro-prudential, investor protection and macroprudential – for this purpose (see section 3). The FSB will also, working with the SSBs, assess in due course whether the implemented reforms have sufficiently addressed systemic risk in NBFI, including whether to develop additional tools for use by authorities.

The remainder of this section presents the main findings of recent (i.e. since the July 2024 NBFI progress report) and ongoing work to assess and address vulnerabilities in particular entities and activities that may contribute to systemic risk in NBFI.

**Table 2: Deliverables completed by mid-2025 under the FSB's NBFI work programme**

| Topic | Brief description | Timing |
|---|---|---|
| Resilience of money market funds (MMFs) and short-term funding markets | To make policy proposals, in light of the March 2020 experience, to enhance MMF resilience<br>To take stock of the MMF policy measures adopted by FSB member jurisdictions<br>To assess functioning and resilience of commercial paper and negotiable certificates of deposit markets | FSB MMFs report (Oct 2021)<br>FSB thematic peer review report (Feb 2024)<br>FSB report (May 2024) |
| Liquidity risk and its management in open-ended funds (OEFs) | FSB, in consultation with IOSCO, to revise the 2017 FSB Recommendations on liquidity mismatch in OEFs<br>IOSCO, in consultation with the FSB, to develop guidance on liquidity management tools to complement the revised FSB Recommendations<br>IOSCO to operationalise revised FSB Recommendations through amendments to its 2018 Recommendations and supporting good practices on liquidity risk management | FSB report (Dec 2023)<br>IOSCO report (Dec 2023)<br>IOSCO (May 2025) |
| Margining practices | BCBS-CPMI-IOSCO to examine frameworks and dynamics of margin calls and to complete policy work on transparency in centrally cleared markets; variation margin processes; and the responsiveness of initial margin models to market stresses in centrally and non-centrally cleared markets<br>FSB to issue policy recommendations on liquidity preparedness of market participants for margin and collateral calls | BCBS-CPMI-IOSCO analytical report (Sep 2022) and policy proposals (Jan 2025), BCBS-IOSCO recommendations (Jan 25), CPMI-IOSCO effective practices (Jan 2025)<br>FSB report (Dec 2024) |
| Liquidity, structure and resilience of core bond markets | To examine the structure and liquidity provision in core funding markets during stress, including the role of leveraged investors and factors that limit dealer capacity to intermediate | IOSCO corporate bond markets report (Apr 2022), BIS Markets Committee paper (May 2022), FSB government bond markets report (Oct 2022) |
| Nonbank leverage | To assess the financial stability implications of NBFI leverage<br>FSB to issue policy recommendations to address financial stability risks from leverage in NBFI | FSB analytical report (Sep 2023)<br>FSB report (July 2025) |
| Advancing the understanding and monitoring of systemic risk in NBFI | To assess NBFI risks in light of COVID-19 developments and lessons from the March 2020 turmoil | FSB Holistic Review of March Market Turmoil (Nov 2020) |
| | To deepen the analysis of structural and interconnectedness issues in NBFI as input into enhanced risk monitoring and discussions on policies to address systemic risks in NBFI | FSB USD funding report (Apr 2022), various FSB analytical reports (see above), annual FSB Global Monitoring Reports |
| Addressing data challenges | To improve the ability of FSB member authorities to identify and assess vulnerabilities stemming from nonbank sectors<br>To improve the ability of authorities to assess and calibrate policies that could be used to mitigate financial stability vulnerabilities that stem from nonbank sectors<br>To explore whether and how authorities could share information (possibly including data) when such sharing could be used to mitigate significant threats to financial stability | FSB workplan to address nonbank data challenges (July 2025) |

| | | |
|---|---|---|
| Developing policies to address systemic risk in NBFI | To examine policies to address systemic risks in NBFI, including the adequacy of current policy tools and the concept and desired level of resilience in NBFI | FSB and SSB documents (see above), FSB NBFI progress reports (Nov 2022 and Sep 2023, Jul 2024, Jul 2025) |

## 2.2. Resilience of money market funds and short-term funding markets

MMFs are important providers of short-term financing and are used by investors to invest excess cash and manage their liquidity. MMFs are subject to two broad types of vulnerabilities that can be mutually reinforcing: they are susceptible to sudden and disruptive redemptions, and they may face challenges in selling assets, particularly under stressed conditions. These vulnerabilities can be amplified by the presence of a high share of institutional investors and a stable or low-volatility net asset value, and by rules that may give rise to threshold effects that provide incentives for investors to pre-emptively redeem their MMF holdings in times of stress.

The FSB published in 2021 policy options to address these vulnerabilities and followed up in 2024 with a peer review taking stock of the measures adopted or planned by member authorities in response to its policy proposals.[7] The peer review report found that progress in implementing the 2021 FSB policy proposals has been uneven across jurisdictions and that, given the vulnerabilities reported in individual jurisdictions, further progress on implementing the FSB policy options would be needed to enhance MMF resilience. These findings are also relevant for IOSCO when it revisits its 2012 Policy Recommendations for MMFs in light of the 2021 FSB report. The FSB will begin preparing later this year for an assessment of the effectiveness of its 2021 policy proposals to enhance MMF resilience, which will be carried out in 2026.

Repo markets play a key role in facilitating the flow of cash and securities through the financial system, but they can also encourage the build-up of leverage, more reliance on short-term funding, and greater liquidity and maturity transformation among market participants. Many of these participants rely on repo markets to serve ongoing borrowing needs (e.g. to finance trading strategies) and as a back-up source of funding. However, recent stress episodes[8] have highlighted vulnerabilities in these markets, which could amplify shocks in the financial system.

The FSB is currently assessing vulnerabilities in the government bond-backed repo market, building upon previous analyses of other core funding markets.[9] This includes reviewing repo market structure and the experience of recent stress episodes in FSB member jurisdictions to better understand the role of different types of market participants, assess the interconnections between banks and nonbanks, analyse areas of concentration, and examine potential spillovers that could arise from cross-border activity. The findings are expected to contribute to better

7 See FSB (2021), *Policy Proposals to Enhance Money Market Fund Resilience*, October and FSB (2024), *Thematic Review on Money Market Fund Reforms: Peer review report*, February.

8 These include a transitory spike in US repo rates in September 2019; the March 2020 dash for cash; and the UK LDI episode and broader volatility in the euro area repo market in September 2022 as a result of strains in government bond markets.

9 See FSB (2012), *FSB Report on Securities Lending and Repos: Market Overview and Financial Stability Issues*, April; IOSCO (2022), *Corporate Bond Markets – Drivers of Liquidity During COVID-19 Induced Market Stresses*, April; FSB (2022), *Liquidity in core government bond markets*, October; and FSB (2024), *Enhancing the functioning and resilience of commercial paper and negotiable certificates of deposit markets*, May.

monitoring of associated vulnerabilities, including through the FSB's work to address NBFI data challenges related to leveraged trading strategies in sovereign bond markets (see section 3).

## 2.3. Liquidity risk and its management in open-ended funds

In July 2024, the FSB and IOSCO organised a workshop to promote the sharing of experiences among authorities on the design and use of fund- and system-level stress tests. The workshop highlighted the progress authorities have made in developing such stress tests, emphasising jurisdiction-specific calibration and the importance of industry engagement. Key challenges include varying assumptions, data access and granularity, resource intensity, understanding the drivers of stress or outflows, and including the role and impact of liquidity management tools (LMTs) in future exercises.

In May 2025, IOSCO published revisions to its 2018 recommendations for liquidity risk management for collective investment schemes (revised IOSCO recommendations).[10] In addition, IOSCO published guidance for open-ended funds (OEFs) for the effective implementation of the recommendations for liquidity risk management, which outlines technical elements for effective implementation of its recommendations.[11] The IOSCO recommendations and guidance aim to operationalise the 2023 FSB revised policy recommendations to address structural vulnerabilities from liquidity mismatch in OEFs.[12]

The revised IOSCO recommendations incorporate the categorisation approach included in the FSB revised policy recommendations, where OEFs would be grouped depending on the liquidity of their assets (e.g. liquid, less liquid or illiquid). The revised IOSCO recommendations state that responsible entities should ensure that the OEF's investment strategy and the liquidity of its assets are consistent with the fund's redemption terms and conditions.

In its guidance, IOSCO specifies that the distinguishing factors across the three liquidity categories are whether an asset is (i) readily convertible into cash without significant market impact and (ii) whether this differs between normal and stressed market conditions. IOSCO provides examples of quantitative metrics that capture asset liquidity, such as market depth, turnover and days-to trade. IOSCO emphasises that responsible entities should also consider qualitative factors related to the nature and features of an asset. Examples of these factors include the efficiency and effectiveness of the pricing mechanism; the market impact of large transactions, operational features and potential frictions; and valuation certainty. For example, the reliability of the liquidity assessment based on quantitative factors should be discounted if the asset has a less efficient pricing mechanism, greater operational and other potential frictions and/or greater valuation uncertainty. It would mean the asset is less likely to be readily convertible into cash, especially in stress.

The revised IOSCO recommendations also reflect the FSB recommendation for greater use of, and greater consistency in the use of, anti-dilution LMTs in both normal and stressed market

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10 IOSCO (2025), *Revised Recommendations for Liquidity Risk Management for Collective Investment Schemes*, May.

11 IOSCO (2025), *Guidance for Open-ended Funds for Effective Implementation of the Recommendations for Liquidity Risk Management*, May.

12 FSB (2023), *Revised Policy Recommendations to Address Structural Vulnerabilities from Liquidity Mismatch in Open-Ended Funds*, December.

conditions. IOSCO's revised recommendations specify that responsible entities should consider and use anti-dilution LMTs to mitigate material investor dilution and potential first-mover advantage arising from structural liquidity mismatch in OEFs they manage. Such tools should impose on transacting investors the explicit and implicit costs of liquidity, including any significant market impact of asset sales or purchases to meet those redemptions or subscriptions. To achieve this, responsible entities should have a detailed framework with appropriate systems and controls in place to operationalise effective liquidity risk management at all times. There are a number of factors that responsible entities should be mindful of in relation to anti-dilution LMTs, including the types of tools to be used as well as appropriate calibration of liquidity costs and activation thresholds for them. Responsible entities should consider and implement a broad set of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures to the extent allowed by local law and regulation. Finally, the revised IOSCO recommendations also cover governance and disclosure to investors.

The FSB and IOSCO will review progress by member jurisdictions in implementing their respective revised recommendations and guidance, starting with a stocktake of the measures and practices adopted and planned by FSB member jurisdictions in 2026. The stocktakes will be followed up by 2028 with an assessment of the effectiveness of these measures in addressing risks to financial stability.

The revised FSB recommendations build on the findings of the assessment of the effectiveness of the FSB's previous recommendations. One of the findings suggested in the assessment was that data challenges limit some authorities' ability to monitor liquidity mismatch and its management from a financial stability perspective. In 2024, the FSB completed a data pilot programme to identify and diagnose these data challenges to improve both central banks and securities regulators' ability to monitor key OEF vulnerabilities related to liquidity mismatch. This included a voluntary data gathering exercise across some member authorities to ascertain what data on OEF exposures in key asset classes is available and could be shared. The FSB found significant limitations in the level of granularity of data within asset classes and reliance on commercial data to fill data gaps in relation to asset classes and funds.

## 2.4. Margining practices

Margining practices play a vital role in safeguarding financial stability by mitigating counterparty risks. Recent episodes of market stress, including the March 2020 market turmoil, the Archegos failure in March 2021, the 2022 commodities market disruptions, and the September 2022 issues experienced by some LDI funds, have highlighted how sudden and significant margin calls can exacerbate liquidity strains, particularly for nonbank market participants.

The BCBS, CPMI, IOSCO and FSB completed significant work in this area in January 2025 (see Graph 2 and Annex 2). The work, divided between the FSB and the SSBs, followed up on the 2022 BCBS, CPMI and IOSCO review on margining practices in centrally and non-centrally cleared markets. The work took a holistic approach, covering a wide range of market participants (central counterparties (CCPs), clearing members, clients) and building a comprehensive framework to improve the liquidity preparedness of market participants, improve transparency, streamline margining processes, and enhance the predictability of margin requirements in both centrally and non-centrally cleared markets.

The FSB's final report on liquidity preparedness for margin and collateral calls, published in December 2024, provides high-level, cross-sectoral recommendations to strengthen the ability of nonbank market participants to manage liquidity demands during periods of market stress.[13] Key recommendations include:

- Strengthening liquidity risk management and governance frameworks to ensure margin and collateral risks are integrated into firms' overall risk management practices.
- Conducting comprehensive liquidity stress testing that accounts for extreme but plausible scenarios, including significant spikes in margin and collateral calls.
- Implementing effective collateral management practices to ensure sufficient liquid assets are available to meet obligations.
- Ensuring access to diversified, reliable funding sources to mitigate liquidity risks during periods of stress.

The FSB's report emphasises that liquidity preparedness is essential to financial resilience. By fostering transparency, operational efficiency, and robust liquidity risk management, the recommendations aim to reduce the procyclicality of margin and collateral calls and to ensure market participants are better equipped to navigate future stress events. As the FSB policy recommendations are high-level, they may need to be further specified. It is for the relevant SSBs to review and, as appropriate, further specify requirements for their sector based on the FSB recommendations. The FSB, in collaboration with the SSBs, is continuing to promote the implementation of these recommendations under its 2025 work programme.

The reports published by the BCBS, CPMI and IOSCO in January 2025 complement the FSB's report.

- For centrally cleared markets, the BCBS-CPMI-IOSCO report on transparency and responsiveness of initial margin in centrally cleared markets proposes ten measures to improve transparency and responsiveness of IM requirements.[14] These include, but are not limited to, enhanced CCP disclosures, advanced margin simulation tools, and CCP governance frameworks for anti-procyclicality tools. Separately, the CPMI-IOSCO report on streamlining variation margin in centrally cleared markets outlines eight effective practices for VM processes, which aim to enhance market participants' liquidity preparedness for above-average variation margin calls through increased transparency and efficient collection and distribution of variation margin in centrally cleared markets.[15]
- For non-centrally cleared markets, the BCBS-IOSCO recommendations focus on streamlining VM processes and ensuring IM responsiveness. Among other things,

[13] FSB (2024), *Liquidity preparedness for margin and collateral calls*, December.

[14] See BCBS-CPMI-IOSCO (2025), *Transparency and responsiveness of initial margin in centrally cleared markets: review and policy proposals*, January. To support the implementation of these recommendations, CPMI-IOSCO has initiated work to operationalise the implementation of proposals 1-8 of its report. The aim is to consult on proposals before the end of the year.

[15] See CPMI-IOSCO (2025), *Streamlining variation margin in centrally cleared markets – examples of effective practices*, January.

these measures address operational challenges, ensure adequate IM calculations, and monitor the responsiveness of the ISDA Standard Initial Margin Model (SIMM).[16]

The FSB has also worked with the three SSBs to develop tools and metrics—such as liquidity risk indicators, margin call ratios, and stress scenario analyses—to enhance the monitoring of liquidity preparedness and financial stability risks.

The FSB's policy recommendations for leverage in NBFI also include recommendations relating to margining practices. They promote consistent and transparent margining practices, which can mitigate unexpected liquidity demands on leveraged nonbanks, procyclicality of margin calls, regulatory arbitrage opportunities, and counterparty credit risks.

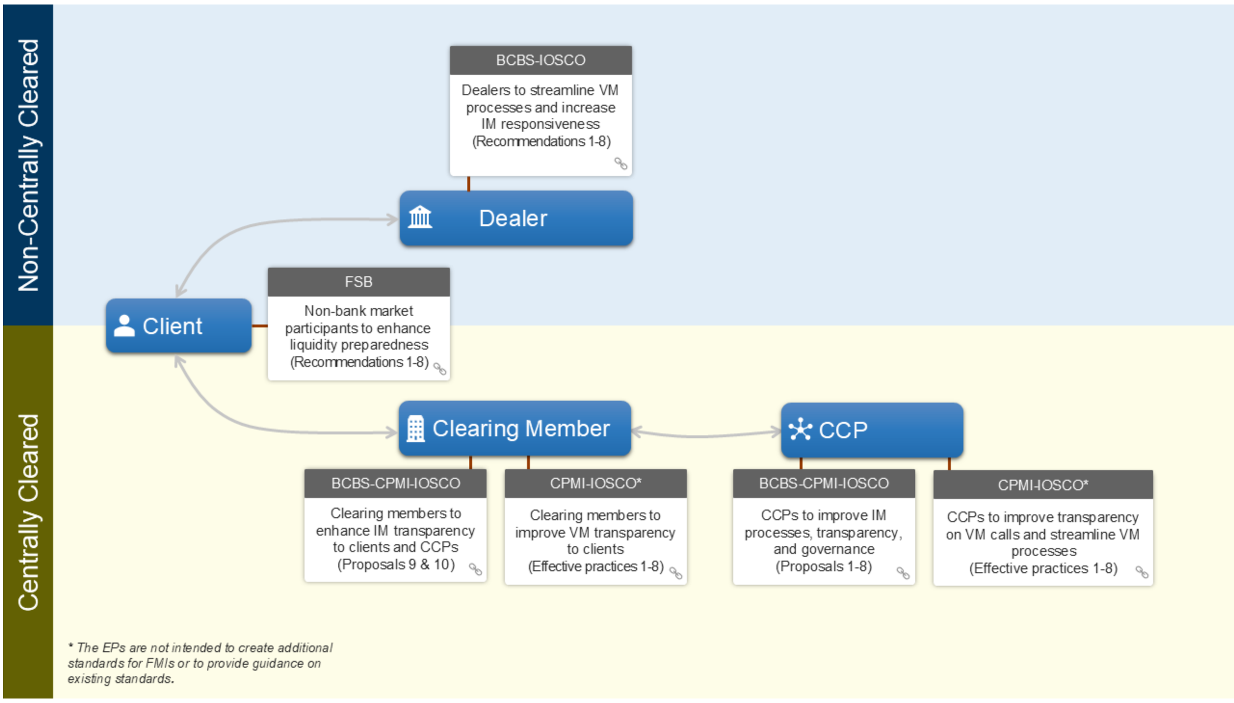
The key recommendations relating to margining include:

- Consider a range of activity-based measures to mitigate counterparty credit risk, including minimum haircuts, initial margins, enhanced margin requirements, and increased use of central clearing;
- Consider measures to address concentration risk, including concentration add-ons for margins and haircuts;
- Review the adequacy of existing counterparty disclosure practices and consider enhancing them to enable leverage providers more accurately assess and address their counterparty credit risk, including through appropriate margining; and
- Identify incongruences with respect to margining across centrally and non-centrally cleared markets, and between products with similar economic profiles.

The report covers both centrally and non-centrally cleared derivatives and SFT markets, providing authorities with the flexibility to tailor their policy response to the specific risks identified in their jurisdiction. The FSB and SSBs will undertake further work, as necessary, to support authorities in applying these recommendations.

[16] BCBS-IOSCO (2025), *Streamlining VM processes and IM responsiveness of margin models in non-centrally cleared markets*, January.

**Graph 2: Overview of the FSB and SSBs' work on margin preparedness**




## 2.5. Nonbank leverage

Leverage is increasingly used in the NBFI sector, which has become more diverse and complex, with business models and strategies often using leverage.[17] There is a high degree of heterogeneity among nonbanks, and NBFI leverage is of varying nature in different jurisdictions. Certain leveraged activities by nonbanks can facilitate hedging, enhance efficiency and support liquidity in financial markets. However, leverage in NBFI can be an important amplifier of stress: if not properly managed, it creates a vulnerability that, when subject to a shock, can propagate strains through the financial system and create risks to financial stability.

In 2023, the FSB published a report on the financial stability implications of leverage in NBFI ('NBFI leverage report').[18] The NBFI leverage report found that NBFI leverage played a significant role in recent stress episodes, such as the March 2020 market turmoil, the default of Archegos in March 2021, the commodities market turmoil in 2022, and the LDI crisis that amplified stress in the UK Gilt market in September 2022. These episodes show that NBFI leverage can create financial stability risks particularly when it arises in financial markets that are at the core of the financial system and whose functioning is essential for the real economy ('core financial markets'), or through the interlinkages between leveraged nonbanks and systemically important financial institutions, in their role of leverage providers.

Building on the findings of the NBFI leverage report, the FSB consulted in December 2024 on policy recommendations to enhance the monitoring of, and to address the financial stability risks created by, leverage in NBFI. The recommendations were finalised and submitted to the G20 in

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[17] FSB (2024), *Global Monitoring Report on Nonbank Financial Intermediation*, December.

[18] FSB (2023), *The Financial Stability Implications of Leverage in Non-Bank Financial Intermediation*, September.

July 2025. The recommendations draw and build on the policy steps taken by authorities in the aftermath of the recent stress events where NBFI leverage played a role, and on the work done by the FSB and SSBs.

The 2025 FSB recommendations on leverage in NBFI set out an integrated approach, according to which authorities should (i) have a domestic framework in place to identify and monitor financial stability risks created by NBFI leverage in an effective, frequent, timely and proportionate manner and (ii) take steps to select, design and calibrate policy measures, or combinations of measures, that address in a flexible, targeted and proportionate way the financial stability risks that they identify (see Box 2).

The recommendations are addressed to FSB member authorities and focus on markets, entities, and activities where NBFI leverage can create financial stability risks. Entities in scope are nonbanks that use either financial or synthetic leverage, including hedge funds, other leveraged investment funds, pension funds, and insurance companies. Where relevant, banks and broker-dealers are also in scope in their role as leverage providers.

The recommendations recognise (i) the high degree of heterogeneity of nonbanks, (ii) that leverage in some NBFI segments is relatively limited and is not likely to pose financial stability risks, (iii) the differences between banks and various types of nonbanks, which have motivated different regulatory approaches, as well as (iv) the complex and varying nature of NBFI leverage in different jurisdictions. They hence provide authorities with flexibility to tailor their policy response to the jurisdictional circumstances by selecting, designing and calibrating policy measures, or combinations of measures, that are most appropriate to the financial stability risks from NBFI leverage that they identify, while considering any adverse effects. In this context, authorities will share their policy responses in light of the financial stability risks they have identified, e.g. through FSB supervisory discussions.

The FSB and SSBs will undertake further work to support and assist authorities in applying the recommendations. This work will begin with supervisory discussions among authorities and, later this year, members will consider whether to initiate follow-up work on recommendations 4, 5 and 7, including how such potential work could be scoped.

**Box 2: FSB Recommendations to address the financial stability risks from leverage in NBFI**

The FSB recommendations set out an integrated approach, according to which authorities should identify financial stability risks created by NBFI leverage and have appropriate policy measures in place to address the risks that they identify.

The first three recommendations relate to risk identification and monitoring. Authorities should:

1. Have a domestic framework to identify and monitor in an effective, frequent, timely, and proportionate manner, the financial stability risks created by NBFI leverage.
2. Assess and seek to address data challenges in their domestic risk identification and monitoring framework, and collaborate, where appropriate, with foreign authorities to reduce those challenges that may hinder effective cross-border risk identification and monitoring, including by promoting better data and information sharing.
3. Review the granularity, frequency, and timeliness of existing public disclosures and determine the degree to which additional or enhanced disclosures should be provided to the public.

Two recommendations relate to NBFI leverage in core financial markets. Authorities should:

4. Take steps to address the financial stability risks created by NBFI leverage that they identify in their core financial markets.
5. Consider those measures that are most appropriate to address the risks that they identify, including both activity- and entity-based measures, as well as concentration-related measures. In doing so, authorities should conduct appropriate analysis when selecting, designing and calibrating policy measures, to mitigate any unintended consequences.

Two recommendations relate to counterparty credit risk management. Authorities should:

6. Ensure the timely and thorough implementation of the BCBS's guidelines on counterparty credit risk for bank leverage providers, which represent an important element of a comprehensive policy response to financial stability risks created by NBFI leverage.
7. Review the adequacy of existing counterparty disclosure practices made privately between leveraged nonbanks and leverage providers and consider developing, in partnership with industry, mechanisms, standards and/or guidelines to enhance the effectiveness of these disclosure practices.

One recommendation relates to instances where various forms of NBFI leverage provision are subject to incongruent regulatory treatments which may result in regulatory arbitrage that can increase financial stability risks.

The last recommendation emphasises the importance of cross-border cooperation and calls for authorities to engage proactively with their peers to facilitate coordinated crisis and/or policy responses, to the extent legally and operationally feasible.

The report concludes with a set of general principles to help guide authorities in the selection, design, and calibration of policy measures.

The BCBS addressed issues related to the provision of leverage by banks to nonbanks and published in December 2024 the revised guidelines for counterparty credit risk (CCR) management,[19] which replaced its earlier (1999) guidance document on sound practices for banks' interactions with highly leveraged institutions. The guidelines provide a supervisory response to the significant shortcomings that had been identified in banks' management of CCR, including the lessons learned from the stress episodes. The guidelines include key practices critical to resolving long-standing industry weaknesses in CCR management, including the need to: (i) conduct comprehensive due diligence at both initial onboarding and on an ongoing basis; (ii) develop a comprehensive credit risk mitigation strategy to effectively manage counterparty exposures; (iii) measure, control and limit CCR using a wide variety of complementary metrics; and (iv) build a strong CCR governance framework.

## 2.6. Other NBFI vulnerabilities

The FSB continues to monitor and analyse NBFI vulnerabilities on an ongoing basis through the development of additional metrics and analytical tools, as well as through targeted deep dives in specific areas. Examples of such work over the past year include:

- The FSB completed its evaluation of the effects of the IOSCO minimum retention recommendations and the BCBS securitisation framework on the collateralised

[19] BCBS (2024), *Final guidelines for counterparty credit risk management*, December.

debt/loan obligation and the non-government-guaranteed part of the residential mortgage-backed securities markets.[20] The reforms sought to enhance the resilience of these markets after the GFC by reducing misaligned incentives and moral hazard and thereby limiting systemic risk. The analysis carried out by the evaluation suggests that these reforms have contributed to the resilience of the securitisation market without strong evidence of material negative side-effects on financing to the economy. However, the post-GFC securitisation market has not yet been tested through a full credit cycle to fully confirm the evidence on enhanced resilience. This is particularly relevant for collateralised loan obligations (CLOs) that have grown significantly in recent years but have not, as yet, experienced a prolonged downturn. The evaluation also identified some issues for consideration by relevant national authorities and international bodies. These include the need to monitor risks in securitisation markets given recent developments; to review the role of risk retention and third-party risk financing for CLOs; and to consider the impact of jurisdictional differences in the implementation of securitisation reforms.

- The FSB assessed vulnerabilities in nonbank commercial real estate (CRE) investors, especially real estate investment trusts (REITs) and property funds.[21] This followed up on the 2024 assessment of interest rate and liquidity risks in the financial system, which had identified a range of nonbanks as being vulnerable to higher interest rates.[22] The report identifies three main vulnerabilities in nonbank CRE investors. First, some open-ended property funds exhibit significant liquidity mismatches and may therefore be vulnerable to runs. Second, there are pockets of high financial leverage in some REITs and property funds. This vulnerability could impact those investors and the broader CRE market via forced deleveraging triggered by a decline in property valuations or an inability to roll over their maturing debt. Third, there is inherent opacity in valuations of CRE assets, and the illiquid nature of the CRE market may lead to difficulties in pricing assets in times of stress. The report also highlights a broader vulnerability stemming from interlinkages between banks and nonbank CRE investors, which are complex and difficult to capture. Given these interlinkages, shocks to the CRE market could more easily spill over to the banking sector than might be expected by looking only at banks' direct exposures to CRE. So far, the global financial system has weathered the recent adverse developments in the CRE market. However, ongoing monitoring of that market is warranted, given the more volatile performance of CRE exposures compared to other assets and various developments that could impact this market and its financing.

## 3. Way forward

The work carried out to date largely completes the original policy elements of the NBFI work programme that were agreed in the aftermath of the March 2020 market turmoil. The focus now is on ongoing monitoring and in-depth assessment of specific vulnerabilities in NBFI; further work to address data challenges; information sharing and supervisory discussions on authorities'

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[20] See FSB (2025), *Evaluation of the Effects of the G20 Financial Regulatory Reforms on Securitisation: Final report*, January.

[21] See FSB (2025), *Vulnerabilities in Nonbank Commercial Real Estate Investors*, June.

[22] See FSB (2024), *Depositor Behaviour and Interest Rate and Liquidity Risks in the Financial System: Lessons from the March 2023 banking turmoil*, October.

policy approaches to enhance NBFI resilience; and monitoring implementation of the agreed policies and evaluating their effects.

The first broad area of work concerns the **ongoing assessment of vulnerabilities in NBFI**. Examples of planned work include:

- Examining vulnerabilities in private credit, a market that has grown rapidly in recent years in the US and Europe. This involves leveraging work done by member authorities, SSBs and international organisations to understand the private credit ecosystem, analyse borrower credit quality and the interlinkages between private credit providers and banks and insurers, and identify key data gaps and potential monitoring indicators.

- Continuing to enhance NBFI vulnerabilities indicators in FSB surveillance, including in the context of the FSB's annual monitoring and information-sharing exercise to assess global trends and risks in NBFI, drawing on the findings of various work initiatives.

The second area involves **work to address data challenges**. The success of the FSB's work to enhance NBFI resilience depends on the availability and quality of data available to authorities. Over the past few years, several data challenges have been identified that impair the effective assessment of nonbank sector vulnerabilities and the calibration of effective policy responses. These can be categorised into four areas: (i) data reporting; (ii) data quality; (iii) data use; and (iv) data and information sharing. Given the complexity and importance of these challenges, in early 2025 the FSB established a high-level task force to: (i) improve the ability of FSB member authorities to identify and assess vulnerabilities stemming from nonbank sectors; (ii) improve the ability of authorities to assess and calibrate policies that could be used to mitigate financial stability vulnerabilities that stem from nonbank sectors; and (iii) explore whether and how authorities could share information (possibly including data) when such sharing could be used to mitigate significant threats to financial stability. Since then, the FSB has identified leveraged trading strategies in core financial markets and private finance, particularly private credit, as the highest priority areas. Work on leveraged trading strategies in sovereign bond markets has already been launched.[23]

The third area involves **information sharing and supervisory discussions on authorities' policy approaches to enhance NBFI resilience**. This includes supervisory discussions on policy tools to address systemic risk in NBFI, including the adequacy and complementarity of these tools, and on evolving policy frameworks among FSB member jurisdictions. It also includes sharing experiences and lessons among authorities on analytical approaches and policies used in FSB jurisdictions to assess and address specific vulnerabilities in NBFI (e.g. OEF and MMF liquidity mismatch vulnerabilities, market participants' liquidity preparedness for margin and collateral calls, build-up of nonbank leverage) and how these vulnerabilities may impact financial stability in the event of a shock.

The fourth area of work involves **monitoring the implementation and assessing the effects of NBFI reforms**. The implementation of these reforms continues to advance, albeit at an uneven pace across jurisdictions. Progress has differed across jurisdictions for a number of reasons, including the heterogeneity of the sector, the diversity of institutional frameworks and

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[23] See FSB (2025), *FSB Workplan to Address Nonbank Data Challenges*, July.

market practices across jurisdictions, and common data challenges. While implementation is ongoing, the vulnerabilities from leverage and liquidity mismatches in parts of the NBFI sector that gave rise to recent market stress episodes remain. It is critical to implement these reforms to limit any reliance of market participants on extraordinary central bank and other official sector interventions and help authorities better prepare for stress events.

Promoting and monitoring the effective implementation of agreed reforms will be a key priority in the FSB's future NBFI work. The findings from such exercises will help the FSB determine in due course whether collectively the reforms have sufficiently addressed systemic risk in NBFI, including whether to develop additional tools for use by authorities. Planned actions in this area include:

- Continuing to monitor and report publicly (e.g. through peer reviews and the Annual Report) on the implementation progress and challenges of agreed NBFI reforms.

- Carrying out a stocktake in 2026 of the measures and practices adopted and planned by FSB jurisdictions in implementing the revised FSB and IOSCO recommendations and guidance to address liquidity mismatch in OEFs (see section 2.3).

- Monitoring the progress made by member jurisdictions in implementing the FSB recommendations on liquidity preparedness for margin and collateral calls, to be potentially followed up, once implementation is sufficiently advanced, with an assessment of the effectiveness of jurisdictions' policy measures (see section 2.4).

- Assessing the effectiveness of agreed reforms in addressing risks to financial stability, including for MMFs in 2026 (see section 2.2) and OEFs in 2028 (see section 2.3).

This work will be carried out within the FSB as well as by its member SSBs and IOs to ensure that relevant experiences and perspectives are brought to bear. Future deliverables will include stand-alone reports in specific areas where appropriate, and overall progress reports bringing together the main findings and describing next steps (see Annex 1 in the Executive Summary).

# Annex 1: FSB framework for enhancing NBFI resilience

The functioning and resilience of the NBFI ecosystem depends on the availability of liquidity and its effective intermediation in stress. If liquidity imbalances become sufficiently large and pervasive, they may give rise to financial instability. These imbalances can be the result of the interaction of large and unexpected shifts in liquidity demand (going well beyond the normal fluctuations that are part of price formation and portfolio management), insufficient supply of liquidity in stress and various amplification mechanisms. These interactions can give rise to asset fire sales and transmission of stress to other parts of the financial system and the economy.

Certain activities and types of entities (key amplifiers) may particularly contribute to aggregate liquidity imbalances and transmission and amplification of shocks due to their size, structural characteristics and behaviour in stress. On the liquidity demand side, this includes activities that could give rise to liquidity mismatches, which are particularly prevalent in some types of nonbank entities, such as certain MMFs and OEFs. Other factors that can contribute to liquidity demand in stress situations include unexpectedly large margin calls for derivatives and securities trades; external funding and currency mismatches (e.g. considering global use of the US dollar as a borrowing and investment currency); and excessive build-up of leverage. Leverage, in particular, is an important amplifier of stress as it can lead to systemic disruption through the position liquidation channel (e.g. sudden unwinding of positions in response to margin calls) and the counterparty risk channel (e.g. counterparty default due to its leveraged positions). On the liquidity supply side, key amplifiers include factors that reduce the ability of bank and nonbank liquidity providers to absorb large spikes in liquidity demand; and the structure of core wholesale funding markets, which is characterised by limited standardisation, low levels of automated trading and turnover, and heavy reliance on dealer intermediation.

Recent market incidents have confirmed that many of the key amplifiers work in tandem – both on the liquidity demand and supply sides – to transmit and amplify the shock across the financial system. For example, the significant spike in demand for liquidity during the March 2020 market turmoil – especially by nonbanks to raise cash to meet investor redemptions (such as certain OEFs and MMFs) and unwind leveraged positions (such as hedge funds) – exceeded the ability of dealers to intermediate and created dislocation across various markets. The sharp increase and extreme volatility in key commodities prices in 2022 led to higher margin calls in centrally cleared derivatives markets in Europe, which contributed to a migration of activity to largely non-centrally cleared OTC markets as well as to reduced hedging of commodities prices. Deleveraging by LDI funds (in part due to poor preparedness to meet margin/collateral calls) and the insufficient supply of market liquidity added further pressure on UK gilt prices in September 2022 and led to additional margin/collateral calls as well as to large outflows by some MMFs used by those funds. The sudden and severe spike in market volatility in April 2025 sparked a temporary flight to safety. Notwithstanding this, some investors appear to have sold government bonds during the episode, with the unwinding of relative value (especially asset swap) trades by leveraged nonbank investors reportedly among the contributing factors to the sell-off in US Treasuries. Given the interconnectedness between and potential spillovers across market segments and participants, including between NBFI and the banking sector, it is critical to ensure that the various policies fit together from a system-wide perspective.

# Annex 2: Overview of the FSB's and SSBs' work on margining practices

## FSB's margin work - liquidity preparedness for margin and collateral calls

The FSB's work on nonbank market participants' liquidity preparedness for margin and collateral calls focused on enhancing market participants' liquidity preparedness and strengthening authorities' ability to monitor and manage associated financial stability risks. The objective was to reduce the procyclical behaviour of some nonbank market participants in response to margin and collateral calls and its impact during times of market-wide stress. The FSB developed high-level, cross-sectoral policy recommendations with a focus on liquidity risk management and governance of market participants for margin and collateral calls. The final report with eight policy recommendations was published on 10 December 2024.[24] The key areas of focus are:

- Robust liquidity risk management and governance: Ensure liquidity risks from margin and collateral calls are included in risk management frameworks, with clear risk tolerances and regular reviews to maintain effectiveness.

- Comprehensive liquidity stress-testing and scenario design: Conduct comprehensive stress tests covering extreme but plausible scenarios to identify potential liquidity strains.

- Effective collateral management practices: Implement resilient operational processes and maintain adequate levels of liquid assets, while engaging in regular interactions with counterparties and service providers.

- Diversified and reliable funding sources: Ensure access to diverse and dependable sources of liquidity, with reliable contingent funding arrangements for periods of stress.

- Efficient decision-making processes: Establish clear governance frameworks for timely and effective decision-making, enabling prompt actions to address liquidity risks from margin and collateral calls.

These key areas aim to enhance the liquidity preparedness of nonbank market participants, ensuring they can manage liquidity demands during market stress. The FSB's work complements existing regulations, reinforcing the need for robust liquidity preparedness to mitigate procyclical behaviour and enhance financial stability.

## SSBs' margining practices work

The following sections provide an overview of the SSBs' reports, published together on 15 January 2025, and recommendations to address transparency, responsiveness, and operational efficiency in margining practices. Together, the recommendations and practices set out in these reports aim to enhance the liquidity management preparedness of market participants by

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24 FSB (2024), *Liquidity preparedness for margin and collateral calls*, December.

improving transparency around margin along the chain from CCPs to clearing members to clients and improving the operational margin and collateral mechanisms in cleared and uncleared markets.

### *Margin transparency and responsiveness of IM requirements in centrally cleared markets*

The BCBS-CPMI-IOSCO report on enhancing transparency and responsiveness of initial margin (IM) requirements in centrally cleared markets sets out ten policy proposals aimed at improving central clearing participants' understanding of IM calculations and potential future margin requirements. Key proposals include:

- Enhanced public disclosures: CCPs should provide more detailed public disclosures on their margin models.
- Advanced margin simulation tools: CCPs are encouraged to increase the availability, accessibility and functionality of margin simulation tools.
- Clearing member transparency: Clearing members should offer greater transparency to their clients and the CCPs of which they are members.
- Governance frameworks and model overrides: Establishing robust governance frameworks and clear guidelines for margin model overrides.

These measures are intended to help market participants better prepare for margin and collateral calls by providing greater clarity and predictability in margining practices.[25, 26]

### *VM processes in centrally cleared markets*

The CPMI-IOSCO report outlines effective practices for VM processes in **centrally cleared markets.**[27] The paper identifies eight effective practices aimed at facilitating improvements in VM processes and transparency between CCPs, clearing members, and their clients. Key practices include:

- Scheduling and timing of VM calls: Considering the scheduling, frequency, and timing of intraday VM calls.
- Offsetting VM call requirements: Encouraging the offsetting of VM call requirements against other obligations where feasible.
- Pass-through of VM: Reviewing operational practices for the feasibility of pass-through VM by CCPs.

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25 See BCBS-CPMI-IOSCO (2025), *Transparency and responsiveness of initial margin in centrally cleared markets: review and policy proposals*, January.

26 Proposal 9 in BCBS-CPMI-IOSCO (2025) relates to transparency by clearing members to their clients over how their margin requirements are calculated.

27 See CPMI-IOSCO (2025), *Streamlining variation margin in centrally cleared markets – examples of effective practices*, January.

- Use of excess collateral: Allowing the use of excess collateral to meet VM obligations where feasible.

- Transparency in VM requirements: Enhancing transparency in VM requirements and processes for both CCPs and clearing members.

These practices are intended to help market participants, including nonbanks, manage liquidity more effectively and meet margin calls by identifying efficiencies in operational mechanisms and transparency in margining practices.

### *IM responsiveness and streamlining VM in non-centrally cleared markets*

The BCBS-IOSCO report focusses on IM responsiveness and streamlining variation margin (VM) processes in **non-centrally cleared markets**.[28] The report outlines eight recommendations to promote good market practices without proposing any policy changes to the existing BCBS-IOSCO frameworks. The recommendations aim to:

- **Facilitate seamless VM exchange:** Address operational and legal challenges that could inhibit smooth VM exchange during periods of stress.

- **Ensure adequate IM calculation:** Encourage practices to ensure IM calculations remain adequate under contemporaneous market conditions.

- **Monitor ISDA SIMM responsiveness:** Propose that supervisors monitor the responsiveness of the ISDA Standard Initial Margin Model (SIMM) to extreme market shocks.

These recommendations are designed to enhance the resilience of non-centrally cleared markets by improving the operational and risk management practices related to margining.

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[28] See BCBS-IOSCO (2025), *Streamlining VM processes and IM responsiveness of margin models in non-centrally cleared markets*, January.