EUROPEAN CENTRAL BANK

EUROSYSTEM

Strengthening the macroprudential lens in the regulation of non-bank financial intermediation

Financial Stability Committee (FSC) high level task force on non-bank financial intermediation (NBFI)

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Contents

1 Overview

Since the global financial crisis, a key aspect shaping the evolution of the financial system – globally and in Europe – has been the growing importance of non-bank financial intermediation (NBFI). The growth in NBFI – and capital markets financing – can entail significant benefits for economic activity, diversifying the sources of capital to the real economy, helping channel personal savings into public and private markets, and providing a key channel through which foreign capital can be deployed in the European economy. The potential for such economy-wide benefits from increased intermediation via capital markets underpins the European Union (EU) savings and investments union (SIU) agenda. Well-developed capital markets are essential to enhancing cross-border investments across the EU, improving businesses' access to funding, boosting competitiveness and ultimately supporting sustainable economic growth.[1] As such, achieving a single market for capital in Europe is imperative for the Eurosystem.

Like all forms of financial intermediation, NBFI can entail financial vulnerabilities, which – if left unchecked – can lead to a build-up of systemic risk. Specifically, systemic risk in the NBFI sector can arise when, in the presence of financial vulnerabilities (such as leverage and liquidity mismatch) and insufficient resilience, NBFI entities amplify shocks, with adverse implications for the rest of the financial system and/or the broader real economy. NBFIs also have a number of connections with banks, including financing and deposit relationships, counterparty exposures (such as derivative and repo transactions) and common asset holdings, all of which can amplify spillover effects in times of stress. There have been several episodes in recent years where these NBFI vulnerabilities contributed to disruptions in core markets, with adverse implications for the broader financial system and the real economy, such as the 2022 UK gilt market liability-driven investment (LDI) crisis and the March 2020 "dash for cash" episode. This growing body of evidence serves to highlight the need to mitigate these vulnerabilities through appropriate regulation and supervision.

The evolving nature of the financial system requires the existing regulatory and supervisory framework to continue to adapt and, specifically, to develop a macroprudential lens. The foundations for building this new approach already exist. Elements of the European regulatory framework have resilience-enhancing aspects, such as the power of authorities to introduce leverage limits under the Alternative Investment Fund Managers Directive (AIFMD);[2] this has been triggered on two occasions, and across two European jurisdictions, for specific cohorts of investment

1 See ECB, (2025), "ESCB reply to the European Commission's targeted consultation on the integration of EU capital markets", European Central Bank, June.

2 Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 (OJ L174, 1.7.2011, p.1).

funds.[3] However, the current regulatory framework for NBFIs has not been sufficiently designed with the macroprudential aim of reducing the build-up of systemic risk ex ante. For example, the power to limit leverage for certain cohorts of investment funds is currently the only ex ante macroprudential tool available. Developing a macroprudential perspective is therefore needed to fully assess and reduce such risk. As resilience among NBFIs is essential for ensuring that the benefits of market-based financing of the real economy are fully realised, this policy agenda is complementary to the aims of advancing the SIU.

The Eurosystem has developed a small number of targeted policy proposals that would strengthen the macroprudential lens in the regulation and supervision of the NBFI sector. These build on the Eurosystem's response to the European Commission's consultation in November 2024 and are consistent with the broader principles outlined by the Eurosystem around the development of such a framework (Box 1). The first section of this report summarises these proposals. These are relevant to the European Commission's ongoing deliberations around NBFI and, in some cases, their implementation would require legislative changes. Moreover, owing to the intrinsically cross-border nature of the NBFI sector, strengthening its resilience will require continued global coordination beyond Europe.

Recognising that the macroprudential perspective for the NBFI sector is at an earlier stage of development compared with the banking sector, the report also outlines a medium-term roadmap for progressing this policy agenda. This is outlined in Section 2. Important components for the further development of a macroprudential framework include defining – and delivering – an NBFI data strategy, strengthening risk assessment and surveillance, and further progressing the policy framework, including an evaluation framework for macroprudential interventions in the NBFI sector.

While NBFI is heterogeneous, comprising many different entities and activities, its growth over the past decade has been driven largely by the asset management sector. Total assets under management by investment funds have more than doubled since the global financial crisis, leading the sector's share to grow to 19% of euro area financial system assets. In contrast, insurance corporations and pension funds have had a broadly stable share, at around 9% and 4% respectively.[4] Therefore several of the proposals in the report are focused mainly – albeit not exclusively – on the asset management component of NBFI.

[3] Article 25 AIFMD enables authorities to limit excessive leverage in the case of funds managed by alternative investment managers, and within the EU It has been triggered twice in recent years: in relation to sterling-denominated LDI funds in Ireland and Luxembourg, and to property funds in Ireland, to mitigate risks stemming from high leverage and concentration in particular asset classes.

[4] See FSC high level task force on NBFI, (2024), "Eurosystem response to EU Commission's consultation on macroprudential policies for nonbank financial intermediation (NBFI)", November.

Box 1: Principles underpinning the design of a macroprudential approach for NBFI

The **primary objective** of a macroprudential perspective in the regulation of the NBFI sector would be to ensure that this growing segment is resilient to, and therefore less likely to amplify, adverse shocks. In achieving this primary objective, the macroprudential approach would enhance financial stability and address systemic risk. This would also help to support the effective transmission of monetary policy by helping to ensure NBFI provides a resilient and sustainable source of funding to the real economy. Greater NBFI resilience would also be beneficial for the development of resilient capital markets in Europe, as NBFIs are core participants in capital markets. It would also help to make the banking system more resilient, given the increasing level of interconnectedness between banks and NBFIs.

The following key principles should underpin the design of a sound macroprudential approach for NBFI:

- It should take a **system-wide perspective**, considering how the range of vulnerabilities in NBFI could affect – and interact with – the rest of the financial system and/or the real economy.
- It should be **appropriately tailored**, with policy measures accounting for the diversity of different business models within the NBFI sector. A one-size-fits-all approach is unlikely to be effective, given the diversity of NBFI entities and activities.
- The implementation of policy measures should be the result of a careful **balance between costs and benefits** from the perspective of the broader economy and be proportionate to the severity of the risks addressed and the nature of the entities or activities involved.
- It should focus primarily on **building resilience by mitigating existing vulnerabilities ex ante**, while also reducing the potential for contagion or amplification of shocks when one materialises.
- It should be developed with **flexibility to respond to risks as they evolve over time** and be able to **target both entities and activities**. Various NBFI entities, especially investment funds, may not be individually systemic, but their collective actions may pose financial stability concerns. Therefore the framework needs to be able to target cohorts of entities with similar vulnerabilities.
- **Global coordination and consistency** are critical enablers in mitigating the risk of cross-border fragmentation and regulatory arbitrage. Given the global nature of capital markets, vulnerabilities outside the euro area could have implications for European financial stability and vice versa. The risk of leakage would also be higher in the absence of coordination.
- The approach should be supported by a **clear governance framework**, including one that enables cooperation between authorities, both domestically and internationally

2 Targeted proposals to strengthen the macroprudential lens in the regulation of the NBFI sector

The Eurosystem has identified a number of priorities for developing a macroprudential lens in the regulation of the NBFI sector in Europe, as outlined below. While recognising that such an approach will take time to advance fully, the Eurosystem judges that pursuing this approach should remain a priority for policymakers, both in Europe and internationally.

2.1 Implementing internationally agreed reforms

Recently agreed reforms to the global NBFI regulatory framework need to be implemented in Europe without delay. In light of the growing importance of NBFI for global financial stability, the Financial Stability Board (FSB), working alongside other international authorities, has been leading efforts to enhance NBFI resilience globally. The key priorities in terms of European implementation are the following:

- **Implementation of the FSB's 2021 proposals to enhance money market fund (MMF) resilience is lagging, notably in Europe.** A number of key MMF reforms should be implemented, particularly increasing liquidity requirements for private debt MMFs and making liquidity buffers more usable.

- **Implementation of the FSB's 2023 recommendations on open-ended fund (OEF) resilience is already under way, but there is more to be done.** Progress has been achieved with respect to liquidity management tools (LMTs), with the recent review of the AIFMD and the Undertakings for Collective Investment in Transferable Securities (UCITS) Directive.[5] But there is more work to do, especially in terms of (i) implementing the FSB's proposals on classifying funds by asset liquidity, and (ii) encouraging greater and more consistent use of anti-dilution tools (ADTs) in both normal and stressed times, to reduce the scope for first mover advantage in OEFs.

- **Implementation of the December 2024 FSB policy recommendations on enhancing the liquidity preparedness of non-bank market participants for margin and collateral calls during times of market-wide stress is key.**

- **Implementation of the FSB's 2025 recommendations on non-bank leverage is also key – especially those focusing on risk monitoring and data challenges.** This represents an opportunity to reinforce the AIFMD framework. Minimum haircuts and initial margin requirements in non-centrally

[5] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (OJ L 302, 17.11.2009, p. 32).

cleared securities financing transactions should also help to mitigate the financial stability risks created by NBFI leverage.

These internationally agreed policy reforms have important macroprudential benefits and need to be implemented swiftly in the EU. Moreover, any forthcoming FSB recommendations to address non-bank data challenges should be closely considered at the appropriate time.[6]

2.2 Enhancing the NBFI macroprudential toolkit

An important element missing from the macroprudential toolkit for the investment fund sector relates to measures that can address liquidity mismatch in OEFs. Evidence has highlighted a number of areas relevant for considering the introduction of such a tool: the structural fragility of OEFs and first mover advantage; use of ADTs; ex ante redemption restrictions; and timing of activation.[7] In its response to the Commission's consultation on the macroprudential framework for NBFI, the Eurosystem highlighted excessive exposure to liquidity risk as one of the key vulnerabilities for OEFs. In particular, it assessed that liquidity mismatch – which arises when the liquidity of a fund's assets is not aligned with the redemption terms – can introduce first mover advantage dynamics, lead to fire sales and potentially amplify or propagate shocks. The FSB provides a high-level definition of liquidity mismatch: "the difference between the redemption terms that an OEF offers to investors and the amount of time it may take the OEF's manager to liquidate fund holdings in an orderly manner (e.g. without substantially increasing transaction costs and without substantially impacting prevailing market prices) to satisfy redemption requests".[8]

The Eurosystem proposes introducing an explicit macroprudential tool for ex ante mitigation of this risk. The tool should be at the discretion of the national competent/national macroprudential authorities (NCAs/NMAs). It would be used ex ante to prevent the build-up of financial stability risks, rather than seeking to respond dynamically to the evolution of liquidity shocks. From a legal perspective, it should be similar to the existing legislative power to address systemic risk from excessive leverage (Article 25 AIFMD). The Eurosystem proposes to apply the instrument to UCITS too. A clear definition of liquidity would be an essential foundation for macroprudential intervention targeting this risk. Introducing such a definition in the

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6 FSB (2025a), "FSB Workplan to Address Nonbank Data Challenges", Basel, July.

7 See the following academic articles relating to these topics: Grill, M., Molestina Vivar, L. and Wedow, M. (ECB 2021), "The suspensions of redemptions during the COVID 19 crisis – a case for pre-emptive liquidity measures?", ECB Macroprudential Bulletin 12, April 2021; Jin, D. et al. (2022), "Swing Pricing and Fragility in Open-End Mutual Funds", *The Review of Financial Studies*, Vol. 35 No 1, pp. 1-50; Chen, Q., Goldstein, I. and Jiang, W. (2010), "Payoff complementarities and financial fragility: Evidence from mutual fund outflows", *Journal of Financial Economics*, Vol. 97 No 2, pp. 239-262; Goldstein, I., Jiang, H. and Ng, D. (2017), "Investor flows and fragility in corporate bond funds", *Journal of Financial Economics,* Vol. 126 No 3, pp. 592-613; Malik, S. and Lindner, P. (2017), "On Swing Pricing and Systemic Risk Mitigation", *IMF Working Papers*, WP/17/159; Capponi, A., Glasserman, P. and Weber, M. (2020), "Swing Pricing for Mutual Funds: Breaking the Feedback Loop Between Fire Sales and Fund Redemptions", Management Science, Vol. 66 No 8, pp. 3581-3602.

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

European regulatory framework could form the basis for a common language for asset management companies and NCAs/NMAs.

2.2.1 The need and principles for a new liquidity instrument

Several considerations justify the need for a new instrument. In particular: (1) ex ante interventions are preferable to ex post measures as they reduce adverse signalling cost; (2) incentives at the individual fund level may not be aligned with financial stability objectives, in particular when fund managers are incentivised to offer generous redemption terms to their investors; (3) the introduction of a European-level instrument would improve harmonisation of existing measures in national law.

In line with these motivations, the Eurosystem proposes that the instrument should follow three core principles. It should: (i) focus on building up ex ante resilience; (ii) take a system-wide perspective; and (iii) be flexible, allowing NCAs/NMAs to adjust their intervention to the specificities of the fund cohort they are targeting in their domestic financial system. These are consistent with the broader principles underpinning the development of a macroprudential lens in the regulation of the NBFI sector (Box 1).

The introduction of this new macroprudential tool would not be a replacement for the implementation of the FSB recommendations around liquidity management by OEFs: the two are complementary. Once implemented in full, the FSB recommendations are expected to result in a significant strengthening of liquidity management by OEF managers compared to current practices. The new instrument would complement the FSB approach under certain circumstances, particularly for funds investing in illiquid or less liquid assets.

2.2.2 Implementing the liquidity instrument

It is important that the instrument remains flexible to ensure it can adjust to the specificities of fund categories; however, the Eurosystem proposes that notice periods (or extensions to existing notice periods) would likely be the main type of intervention to reduce liquidity mismatch in funds. Notice periods generally minimise disruption to the business models of funds that already invest in illiquid assets, are simple to enforce, and are clearly understandable from a stakeholder perspective. They also target the mismatch between the liquidity of the assets and the liquidity of liabilities at source. NCAs/NMAs ex ante intervention could also entail other LMTs, such as ADTs. In cases where intervention on the liability side may not be sufficient or may cause adverse effects, NCAs/NMAs could adopt asset-side measures, such as introducing minimum levels of liquid assets.

Measures under the instrument could have different features, and their scope could be clarified by ESMA guidance. ESMA could clarify whether measures adopted under the instrument should be specific – for example setting a defined

number of days for the minimum notice periods imposed/extended – or set out broad parameters and allow some flexibility for the managers. In all cases, though, interventions would be ex ante, i.e. when the authorities assess that vulnerabilities are building up, rather than during a stress period.

Legal implementation of the proposal could be achieved by amending Article 25 AIFMD. Amendments to Article 24 of the same Directive would also be useful to ensure the required data are available.

The instrument should apply to UCITS funds similarly. However, as the UCITS Directive does not include macroprudential powers comparable to Article 25 AIFMD, extending the liquidity instrument to UCITS funds would require a new article. This new article should mirror the proposed Article 25 AIFMD amendment. Discussions on the introduction of a liquidity instrument for UCITS funds could be included in the broader effort to improve the macroprudential toolkit for these funds by using the same power as already exists under the AIFMD (Article 25), i.e. the ability to impose leverage or other restrictions on those funds.

This new instrument would be granted to the NCA/NMA where the asset managers are domiciled, or to the fund's NCA/NMA if the entity is a UCITS. The competent authority should be determined at the national level to account for the diversity of macroprudential frameworks. This approach is best suited to reflecting national specificities, while enhancing ESMA's role in the implementation of macroprudential policies. ESMA, in close collaboration with the European Systemic Risk Board (ESRB), would perform a facilitation and coordination role, and the powers under the liquidity instrument would be within the scope of the reciprocation and top-up power envisaged for ESMA (see the section 2.5 on governance).

More details on the design of the proposed instrument are outlined in Annex 1.

2.3 Introducing system-wide stress testing in Europe

As financial markets grow more complex and interconnected, system-wide stress testing (SWST) is a powerful tool for identifying and quantifying risks to core market resilience, including those that arise from the interlinkages of NBFIs among themselves and with banks. A European SWST exercise can assess how different market participants in the EU would react to adverse shocks, how their collective actions might affect system-wide risks and, ultimately, how resilient core markets would be to adverse shocks. It would complement existing sectoral stress tests by focusing on interactions between financial market segments (and financial sectors), capturing short-term liquidity and market risks as well as their potential impact for risks to solvency. SWST can inform policies to mitigate systemic risks and deepen policymakers' understanding of systemic vulnerabilities, particularly those arising from cross-sectoral and cross-border interlinkages of financial markets.

The proposed SWST exercise would target the entities and markets that matter most for financial stability in the EU. Entities in scope would be those headquartered in the EU or having a significant role in EU markets. Key markets in

scope would include sovereign bond markets, unsecured short-term funding markets, covered and corporate bond markets, interest rate and FX derivatives markets and repo markets. These are critical for liquidity provision, pricing benchmarks and systemic stability. Sectors such as banks, investment funds (including MMFs), insurers and pension funds would be prioritised due to their significant footprint and interlinkages. Given their central role in repo and derivative markets, as well as their interconnectedness, central counterparties (CCPs) could also be considered.

The SWST would focus on short-term market and liquidity risks, while taking into account their interplay with solvency risks, e.g. via counterparty credit risk and margin calls. The stress scenario underlying the SWST exercise would include calibrated shocks to core financial variables that reflect these risks. The SWST would move beyond the usual static balance sheet assumption by considering entities' responses to a stress scenario. Reactions include actions from market participants in scope, as well as those by others not directly in scope (e.g. investors and counterparties). The exercise would also help trace how market participants' reactions to adverse shocks may amplify risks across the system.

A hybrid top-down/bottom-up stress test set-up is likely to be most effective, as it would capture both the diversity of responses across different types of institutions as well as the aggregate effects of scenario-implied shocks. Top-down stress tests are based on models and do not require extensive interaction with the industry. They enable authorities to conduct timely and frequent analyses, which can be particularly useful in the face of sudden changes in economic conditions. Nevertheless, such models are sensitive to the assumptions on which industry behaviour and transmission channels are based. Conversely, bottom-up stress tests rely on responses that individual institutions report for their behaviour under the adverse scenarios. While these offer important insights into the industry's behaviour, individual responses need to be aggregated and checked for plausibility and consistency to obtain a system-wide view. A hybrid approach that merges the advantages of the bottom-up and the top-down approaches and balances trade-offs between data availability, industry involvement and cost efficiency therefore seems to be most effective.

The SWST should be based on granular data to effectively assess portfolio impacts and the transmission channels of financial shocks. Relevant data sources include supervisory, statistical and commercial data, and targeted and proportionate data requests, with supervisory data collected by European Supervisory Authorities (ESAs) playing a pivotal role. MoUs and established cooperation mechanisms will be critical for effective data sharing among national and EU authorities.

The governance of a European SWST would ultimately be determined by the mandate to be assigned by EU co-legislators. EU-wide sectoral stress tests are governed by the respective ESAs, whereas national competent authorities (NCAs) or national central banks (NCBs) are responsible for stress tests at Member State level. The SWST would require collaboration among EU and national authorities, leveraging their mandates, expertise and existing coordination mechanisms. The

hybrid set-up (encompassing both top-down and bottom-up approaches) should guide its design and be consistent with the missions assigned by EU regulations to the ESRB, the ECB/SSM, the ESAs, NCAs or microprudential supervisory authorities, NMAs, national designated authorities and NCBs.

More details on the design of such an exercise are outlined in Annex 2.

2.4 Enhancing NBFI data as well as access to data by different authorities

NBFI entities have complex and significant cross-border activities, raising data challenges. Data are a critical enabler for assessing potential vulnerabilities in the NBFI sector. The EU has made significant advancements in collecting NBFI-related data over the past 15 years.[9] However, shortcomings remain, including missing or incomplete data, gaps and inconsistent reporting. Crucially, existing data often cannot be shared across borders or authorities. Given the cross-border nature of NBFI, it is therefore essential from a financial stability perspective to enhance access to and sharing of existing data, improve data quality and further harmonise data reporting. Specifically, including central banks – both the ECB and NCBs – in any future integrated reporting framework by granting all members of the European System of Central Banks (ESCB) access through the relevant EU legislation is key to unlocking the full potential of integrated reporting.

Failure to share and make full use of data already reported significantly reduces the ability of authorities and central banks to monitor the build-up of systemic risk, while also placing an unnecessary burden on industry. If these hurdles can be overcome, particularly data access and sharing, there is scope to both reduce the reporting burden for the industry and generate more robust systemic risk assessments. It would also facilitate more accurate assessment of the criticality of any further data gaps. Annex 3, Sub-Annex 1 includes three case studies as practical illustrations of the existing challenges with NBFI data from a financial stability surveillance perspective, not least due to the limitations on accessing and sharing data.

By reducing the reporting burden and fostering simplification, an enhanced framework for data access and sharing would also promote the objectives of the SIU. In view of the current EU initiatives aimed at simplification, this report recommends primarily focusing on three core proposals relating to existing data. The first two relate to enhancements to access to, and sharing of, existing data, and have the potential to lessen the reporting burden for market participants in the medium term. These should therefore be pursued with higher priority.

The three core proposals relating to existing data are:

9 For example through AIFMD, EMIR, SFTR, MMFR and MiFIR data, as well as through ECB datasets such as IVF, IC, PF, SHS and QFA.

- **Targeted changes to the data access and sharing provisions of relevant EU legislation to enable timely and efficient exchange of NBFI statistical and regulatory data among the ECB, NCBs, the ESRB, EU supervisory authorities, NMAs and NCAs.** As an example, the Eurosystem has identified the data access and sharing provisions in AIFMD and the UCITS Directive as a priority where targeted legislative changes would facilitate the sharing of information for financial stability purposes. These changes are an essential prerequisite for unlocking the full potential of the integrated reporting framework for central banks. Similar targeted adjustments may also be necessary for the Money Market Fund Regulation (MMFR)[10], the Solvency II Directive[11] and MiFID/MiFIR.[12]

- **Pursuit of a centralised data access and sharing mechanism, while maintaining direct data collection from NBFI entities at the national level.** Such a mechanism can be substantially more efficient than bilateral data-sharing arrangements, which tend to be complex, resource-intensive and difficult to scale. ESMA is exploring the development of a centralised data hub as part of an integrated reporting framework to enhance data harmonisation, standardisation and simplification, while improving accessibility, interoperability and usability.[13] This could help overcome many operational, non-legislative barriers to data access and sharing, as well as substantially improve data quality and harmonisation. Efforts to improve data quality and harmonisation need to address issues both within and across key datasets, such as the European Market Infrastructure Regulation (EMIR)[14], Securities Financing Transactions Regulation (SFTR)[15] and AIFMD. It is crucial that NCBs are involved in designing and implementing these initiatives. Likewise, to maximise the benefits of existing data collections, Eurosystem NCBs should share relevant statistical data on funds with regulatory and supervisory authorities.

- **Priority proposals to strengthen existing reporting, especially for the more opaque segments of the NBFI sector.** The first would be targeted legislative changes to mandate the use of internationally recognised identifiers in reporting (e.g. Legal Entity Identifiers or LEIs) – including for mutual, hedge and private credit funds –enhancing the monitoring of financial stability risks

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10 Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds (OJ L 169, 30.6.2017, p. 8)

11 Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II; OJ L, 25.11.2009, p.1).

12 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (OJ L, 12.6.2014, p.173) and Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 (OJ I, 12.6.2014, p.173).

13 Also see ESMA (2025a), "Discussion Paper on the integrated collection of funds' data", Paris, July.

14 Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L, 27.7.2012, p. 1).

15 Commission Delegated Regulation (EU) 2019/463 of 30 January 2019 amending Regulation (EU) 2015/2365 of the European Parliament and of the Council with regard to the list of exempted entities (OJ L 80, 22.3.2019, p. 16).

stemming from the NBFI sector and its (international) linkages.[16] The second would be amending ESMA guidelines on AIFMD reporting obligations[17] to introduce a specific alternative investment fund (AIF) type dedicated to private credit funds, to enable more accurate identification and oversight of such funds at the entity level.[18]

More details on the NBFI data proposals are outlined in Annex 3.

2.5 Strengthening macroprudential governance arrangements

An effective governance framework is an important building block for strengthening the macroprudential perspective in the regulation of NBFI in Europe. It is crucial that cooperation between European authorities, NMAs and NCAs is strengthened to reflect the significant cross-border footprint of NBFI entities and promote a level playing field within the EU. The Eurosystem proposes that two elements be prioritised in the governance framework for NBFI macroprudential instruments: (i) reciprocation; and (ii) top-up powers. These proposals would strengthen governance arrangements for existing powers (such as to apply leverage limits to AIFs), as well as new ones (such as the power to introduce measures to limit risks for liquidity mismatch, as described above). The design of these proposals reflects the material cross-border nature of NBFI activities.

2.5.1 Reciprocation

It is proposed that ESMA, in collaboration with the ESRB, coordinates the reciprocation framework, and that such a framework should be primarily voluntary. The proposed framework would entail: (i) a clear mechanism that would allow the NCAs/NMAs that are enacting macroprudential measures to request reciprocation, and; (ii) an obligation for other NCAs/NMAs to consider such requests within a "comply or explain" process.

If an NCA/NMA determines that there is a need for reciprocation of a measure enacted in their home jurisdiction, it would submit the request to ESMA with the accompanying rationale and background information. ESMA, in collaboration with the ESRB, would consider the request and issue guidance on whether reciprocation should be granted, including based on proportionality and de minimis considerations (see below). NCAs/NMAs should then be subject to a "comply or explain" process.

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16 This proposal is also in line with European Commission (2021), "Strategy on supervisory data in EU financial services", Brussels, December, and European Commission (2024), "Progress report on the strategy on supervisory data in EU financial services", Brussels, February.

17 See the ESMA Guideline ESMA/2014/869EN.

18 For further proposals to strengthen the identification and monitoring of private credit at the activity level, see Annex 3.

However, voluntary reciprocation on its own might not be sufficient. There should be an EU-level power to complement powers at the national level, owing to the inherently cross-border nature of the asset management sector. ESMA, in close collaboration with the ESRB, should be granted sufficient powers that would help address EU-wide systemic financial stability risks and guard against the risk of inaction bias.[19] If ESMA issues a positive opinion or guidance that does not result in reciprocation in relevant Member States, it should be empowered to enact a temporary, EU-wide measure enforcing reciprocation of the measure in a time-limited fashion. Such a temporary power would be broadly equivalent to the product intervention powers contained in Article 40 MiFIR and would provide ample time for further discussions between ESMA and the relevant authorities to agree on appropriate reciprocation, while at the same time ensuring a level playing field and addressing systemic concerns across the EU.

The NCA/NMA proposing the measures would request that the same measures under the same parameters be reciprocated by the NCA/NMA in other Member States where the exposures/activities are relevant.[20] The proportionality and criteria for reciprocation would be assessed by ESMA, in collaboration with the ESRB, on a case-by-case basis. Reciprocation needs to be proportionate to the efficacy of the macroprudential measures taken by the proposing NCA/NMA.

2.6 Top-up powers

In addition to reciprocation, ESMA, in collaboration with the ESRB, should have EU-level powers to ensure systemic risks building up across the EU or in a single Member State are contained by implementing appropriate macroprudential measures. Accordingly, ESMA, in collaboration with the ESRB, could, if deemed necessary:

- apply more stringent macroprudential requirements than those being proposed/applied by the NCA/NMA, similar to the power available to the ECB with respect to bank capital; or
- To guard against inaction bias, recommend implementation of an appropriate macroprudential requirement by one or more NCAs/NMAs, in the event that no national measures are in place.

The NCAs/NMAs to whom the recommendation is addressed would then have to respond via a comply or explain procedure and ESMA may then re-assess. It is further envisioned that reciprocation and top-up powers could be applied to the same measure, i.e. they are not necessarily intended to be mutually exclusive.

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19 ESMA as an institution has experience with exercising powers directly as part of its supervisory mandate; ESMA staff and members have deep expertise in the asset management sector specifically; and ESMA has a financial stability mandate.

20 This includes investments in assets located in the requesting countries by funds established in the reciprocating country.

2.6.1 Ensuring adequate representation for NMAs

Appropriate representation arrangements within ESMA governance would need to be implemented, especially for NMAs. These tend to be located in central banks and/or prudential supervisors, and as such may not be represented in ESMA. Since macroprudential powers (such as those to limit leverage for AIFs under Article 25 AIFMD) may be granted to market authorities which are not also NMAs, it is important these specific NMAs be involved in the ESMA processes as outlined above (e.g. by establishing a new ESMA committee) to ensure it integrates a broad macroprudential perspective.

More details on the NBFI macroprudential governance proposals are outlined in Annex 4.

3 Medium-term roadmap for progressing the macroprudential perspective

Beyond the concrete proposals outlined, further work will be required to deepen and embed the macroprudential perspective in NBFI over time. The macroprudential perspective for the NBFI sector is at a much earlier stage of development compared to the banking sector. This report sets out a medium-term roadmap for progressing this important policy agenda.

This section sets out medium-term goals to further develop the policy framework. These include: (i) defining and delivering an NBFI data strategy; (ii) strengthening risk assessment and surveillance of NBFI activities, and; (iii) progressing the policy framework, including the approach to evaluating regulatory interventions (e.g. cost-benefit analyses).

Some elements could be best taken forward as part of international discussions, while progress on others could be made in an EU-specific context. For instance, given the global nature of non-banks and the systemic risk they can pose, work on a medium-term data strategy for financial stability analysis and the accompanying risk assessment framework would ideally be taken forward and delivered internationally. At the same time, progress at the European level needs to be made alongside these global initiatives. That will require collaboration between Eurosystem, the ESRB, ESMA and NMAs/NCAs.

3.1 Developing and implementing a comprehensive data strategy on NBFI

An overarching medium to long-term strategy on NBFI data needs to be developed and delivered. Despite significant advancements in collecting NBFI-related data across the EU over the past 15 years, there remains a critical need to enhance data access and sharing, improve quality, avoid duplications and harmonise reporting standards. A comprehensive NBFI data strategy could build on some of the work conducted already to identify data gaps (see Annex 3) and assess new needs in light of evolving risks and with a comprehensive cost-benefit analysis.

In line with the simplification agenda, a European NBFI data strategy should begin by maximising the use and sharing of already existing data that is not yet accessible to all relevant institutions. Establishing a robust framework for data exchange should build on current datasets. Regarding data access, it is essential to combine micro- and macro-level approaches, as granular data form the cornerstone of systemic risk assessment.

As the NBFI and broader financial system evolve, so too will data needs for the accompanying systemic risk assessment. As new sectors and market dynamics

emerge, relying on existing data – even if better reported and shared – might not be enough to assess the potential systemic risks posed. This is demonstrated, for example, by the rapid growth of private credit, where opacity is a key concern for authorities globally. Similarly, new market dynamics are evident in the involvement of hedge funds in euro area sovereign bond markets. Both developments have been the subject of case studies aimed at identifying data gaps in the assessment of associated financial stability risks (see Annex 3).

An NBFI data strategy should identify competing needs for enhanced data and prioritise them based on a framework that targets the most systemic risks, while being proportionate to stakeholders' costs. It should consolidate new data needs and prioritise them, based on: (i) insights from enhanced risk assessment (see the risk assessment section below), and: (ii) requirements from policy measures, including a better understanding of their impact, effectiveness and efficiency.

A broad NBFI data strategy should cover several key dimensions:

(i) **Scope** – identifying which entities (e.g. funds or entities outside the regulatory perimeter) or activities (e.g. private credit) are most relevant from an EU financial stability perspective.

(ii) **Standards** – covering taxonomy harmonisation, data quality and rationalised reporting. This can be achieved by adopting common data definitions and formats across sectors, reporting schemes and EU and non-EU jurisdictions, in line with initiatives led by the FSB and ESMA. In parallel, development of this framework should be accompanied by a reflection on rationalising reporting, at both the EU and national levels. Efforts should therefore focus on identifying opportunities for greater mutualisation across reporting frameworks in different financial sectors.

(iii) **Risk themes** – such as leverage (including synthetic leverage), liquidity and interconnectedness.

Such a strategy would ideally be taken forward at international level, but Europe needs to play a leading role and make its own progress. The work already under way at the FSB, including in the Non-Bank Data Task Force, can underpin and strengthen the medium to long-term strategy on data gaps. Europe should play a leading role in this international development by taking concrete steps to enhance the use and availability of data within the EU.

3.2 Risk assessment and surveillance

Significant progress has been made in recent years in strengthening authorities' collective understanding of the NBFI sector. Nevertheless, a framework for consistent and systematic risk assessment and surveillance across

Europe is still not fully operational. Progressing this is an important part of developing a macroprudential lens in the oversight of the sector.

3.2.1 Building a consistent framework for systemic risk analyses

Despite their growing importance, the monitoring of systemic risks in the NBFI sector remains fragmented across jurisdictions and sectors. Regulatory definitions and data standards differ between countries, complicating cross-border analysis. Data on leverage, liquidity and interconnectedness are often incomplete or non-comparable, while reporting frameworks remain highly heterogeneous.

The ambition should be to establish a common analytical framework at both European and international level, based on shared concepts, data, indicators and methodologies for assessing systemic risk and regulatory arbitrage in NBFI. A broad convergence of principles would allow each jurisdiction to adapt implementation to its own market specificities and risks. Such a framework should be based on the known vulnerabilities of NBFIs: leverage and liquidity mismatch, plus transmission channels in the form of interconnectedness. Such an assessment framework would also strengthen collective crisis response and allow for better and more consistent calibration of macroprudential instruments.

A unified monitoring framework should rely on several key pillars:

- **a system-wide perspective supported by joint stress testing,** encompassing banks, insurers, investment funds, pension schemes and CCPs based on a hybrid approach combining top-down models with projections reported by individual institutions responding to adverse scenarios;
- **harmonised definitions, identifiers and taxonomies** (counterparties, asset classes, collateral) to facilitate data aggregation and transformation, leveraging existing centralised databases;
- **a common set of indicators and analytical tools,** integrating multiple reporting sources;
- **better access and sharing of data** that European and national authorities collect currently, as per the suggestions set out in Annex 3.

3.2.2 Defining the appropriate structure for EU-level coordination of a consistent framework for systemic risk analysis

At the European level, the ESRB and/or ESMA could coordinate the development of a consistent framework to monitor systemic risks for NBFIs. The ESRB continues to advance its system-wide approach to financial system oversight, covering both bank and non-bank activities. Its current priorities – improving transparency in asset management, promoting central clearing in government bond and repo markets, and empowering authorities to apply borrower-

based or concentration limits to highly leveraged entities – are crucial levers to mitigate systemic risk stemming from the NBFI sector.[21] A complementary approach would be for the ESMA Risk Standing Committee (RSC), responsible for coordinating risk assessments and market trend analysis, to contribute to efforts to develop common indicators and shared analytical methodologies, always in collaboration with the ESRB.

3.2.3 Monitoring the regulatory perimeter – and adjusting it where needed

The regulatory perimeter should be a key consideration when designing and implementing a monitoring framework. Despite the various regulatory regimes, activities are often similar and may sometimes pose similar risks. For example, assets under management are not always managed by funds regulated under AIFMD or UCITS, but rather through discretionary mandates (MiFID), plus a range of wider investment activities. There is merit in expanding data availability and systemic risk assessment for areas of asset management that extend beyond the traditional focus on regulated investment funds to include discretionary mandates and family offices. Systemic risk should be addressed holistically to include both an entity and activity-based approach, given that activities can be carried out and risks taken under different regulatory regimes. However, any additional data collection would need to be proportionate to the risks posed by these entities and subject to a rigorous cost-benefit analysis.

As part of surveillance activities, a systematic process for monitoring activities outside the regulatory perimeter could be introduced, to assess where similar activities that fall under different regulatory regimes pose similar risks.

3.3 Policy framework

Policy framework considerations should focus on first implementing measures that have already been agreed on internationally, as well as the new liquidity instrument proposed earlier. These reforms (as discussed in Section 1) are an essential part of the development of the policy framework, providing the bedrock for its evolution. At the same time, attention must be given to further developing policy tools for the future.

3.3.1 Further developing policy tools for the future

Future work to fill any gaps that remain in the macroprudential toolkit available to address systemic risks posed by NBFI should adhere closely to the key

[21] See Mazzaferro, F. (2025), "Taking a system-wide approach to assessing the adequacy of the macroprudential framework for non-bank financial institutions in the EU", speech to the Committee on Economic and Monetary Affairs of the European Parliament, 19 March.

principles set out by the Eurosystem (Box 1). The policy framework developed in Europe must have the flexibility to respond as the nature and magnitude of risks evolves over time, an inherent feature of the financial system. It is important that a degree of flexibility in the toolkit be maintained, including by introducing new tools where warranted, to ensure that measures can be implemented on an ex ante basis as required.

In building a comprehensive macroprudential toolkit, further consideration could be given to policy tools addressing the interconnectedness of NBFI entities. While underlying financial vulnerabilities and interconnectedness are both instrumental in the crystallisation of systemic risk from NBFIs, attention has hitherto focused on measures targeting financial vulnerabilities, for example by limiting leverage or reducing liquidity mismatch. Looking ahead, consideration could be given to developing tools that dampen the amplification mechanisms through which NBFI distress affects other parts of the financial system and the real economy. Concentration and crowdedness are two important ways in which interconnections can amplify shocks to/from the NBFI sector, and which may prove challenging to target solely using vulnerability-reducing measures. Instead, authorities may require measures that focus specifically on the interconnected nature of NBFIs. Though currently underdeveloped and less explored than tools targeted at NBFI vulnerabilities, these tools can be an important element of a flexible macroprudential policy framework that can mitigate systemic risk ex ante.

The policy framework should accommodate both entity and activity-based application. In practice, a toolkit will be far more flexible and adaptable to emerging systemic risk where it provides tools that can be applied to activities as well as entities. Where the pace of change in the nature of the financial system makes it difficult for traditional, sectoral-focused legislation to keep up, activity-based measures could be particularly effective, including in addressing the asset management sector outside the regulatory perimeter. These measures encompass all providers of certain financial services, regardless of whether they are regulated financial service providers, as in the case of the extension of certain EMIR provisions to non-financial entities where they participate in certain activities.

3.3.2 Evaluation framework

Any policy tools developed must be subject to a rigorous evaluation framework, both ex ante and ex post. NBFI systemic risk assessment and macroprudential policy formulation are at a relatively early stage. There is further work to be done to better understand the costs, benefits, interactions and trade-offs of policy intervention (or non-intervention, which also comes with costs, benefits, interactions and trade-offs). Policymakers should aim to create a consistent framework for assessing, ex ante and ex post, the case for macroprudential policy intervention, that reflects the factors below:

- estimates of economy-wide benefits and costs from the proposed interventions, including those accruing over time and indirectly, not just short-term direct costs to industry;
- the complexity of the NBFI sector, including the heterogeneity of business models, substitutability between entity types, arbitrage and broader interconnectedness;
- interaction with other policy measures, including microprudential, consumer protection and macroprudential policy measures already in place (including in other sectors, such as banking);
- cross-border spillovers, especially the potential for an uneven playing field if measures are applied unevenly across Member States;
- the legislative and non-legislative measures available, noting the trade-off between speed and certainty with both options;
- the balance between what can or should be done in the EU and what can or should be done internationally.

In accordance with the principle of flexibility, authorities should stand ready to revise, adapt or even remove their measures as a result of careful ongoing evaluation.

As in other areas of the macroprudential perspective, data are a critical enabler in facilitating evaluation, though they will always need to be accompanied by policymaker judgement. An evaluation framework relies on a data-driven evidence base, both before and following the introduction of policy measures. Given the global nature of the NBFI sector, an evaluation framework would ideally rely on data and metrics that are internationally consistent, allowing regulators to track risk-shifting across borders to understand the impact of their policy measures. Notwithstanding the importance of data and data sharing, an effective evaluation framework will necessarily continue to rely on policymaker judgement too.

4 Conclusion

Amid the ongoing evolution of the financial system, the regulatory framework also needs to adapt, to remain effective. Strengthening the macroprudential lens in the regulation of the NBFI sector is key to ensuring the resilience of the financial system. Progressing the policy agenda outlined in this report would contribute to building a more robust, comprehensive macroprudential framework for the NBFI sector, encompassing its diversity. This is essential to bolster the resilience of this fast-growing segment of the financial system, now central to financing Europe's real economy, and to support the savings and investments union agenda. The Eurosystem recognises that it will take time to advance such a framework fully, not least because there are still gaps in authorities' collective understanding of the nature and magnitude of the systemic risk posed by NBFI. Continuing to pursue such a framework should remain a priority for policymakers, both in Europe and internationally.

5 Annex 1: Introducing a new macroprudential ex ante liquidity instrument to address risks from liquidity mismatch in OEFs

In its response to the Commission's consultation on the macroprudential framework for NBFIs, the Eurosystem highlighted excessive exposure to liquidity risk as one of the key vulnerabilities for investment funds. This can emerge when the liquidity of a fund's assets is not aligned with the redemption terms offered to its investors or other liabilities. Challenges in raising sufficient liquidity to meet redemption requests can lead to fire sales, potentially causing destabilising effects on financial stability.

To address this vulnerability, the Eurosystem calls for the introduction of an explicit macroprudential instrument for ex ante mitigation of liquidity risk in the fund sector. This would grant national NCAs/NMAs the power to adopt measures reducing systemic liquidity risk ex ante.

This Annex elaborates in detail how the new instrument could be designed and used by NCAs/NMAs within an over-arching EU governance framework.

5.1 Scope and assessment of liquidity risk

A clear definition of liquidity risk is an essential foundation for macroprudential intervention targeting this risk. Introducing such a definition in the European regulatory framework could:

- form the basis for a common language for asset management companies and NCAs/NMAs fostering the development of internationally shared metrics and harmonised reporting;
- be helpful for liquidity stress testing reporting requirements by investment funds other than MMFs;
- lower regulatory ambiguity, reducing the room for regulatory requirements to be circumvented.

While liquidity risk can stem from different sources, the risk from liquidity mismatch is the main target of the proposed instrument. The FSB provides a high-level definition of liquidity mismatch: "*the difference between the redemption terms that an OEF offers to investors and the amount of time it may take the OEF's manager to liquidate fund holdings in an orderly manner (e.g. without substantially increasing transaction costs and without substantially impacting prevailing market*

prices) to satisfy redemption requests". The FSB's recommended bucketing approach proposes classifying funds based on the liquidity of their underlying assets. This is expected to provide greater clarity into the notion of liquidity, which could serve as a foundation for applying the instrument. Consistent with that definition, the aim of the instrument would be to mitigate the risk of "'excess' redemptions that require managers to engage in asset sales larger than in the absence of liquidity mismatch, especially in times of stress."[22] A new instrument would also complement implementation of the FSB recommendations on OEFs.

5.2 The need for a new macroprudential instrument

Existing measures targeting liquidity risks, such as requirements for implementing LMTs, have generally been implemented from a microprudential perspective. While this approach has contributed to strengthening the financial soundness of individual European funds, macroprudential policies taking a system-wide perspective are also needed. This is for a number of reasons:

- Ex-ante intervention is preferable to strengthen financial stability as:
    - fund managers may be reluctant to activate LMTs in times of stress for fear of possible signalling effects which could be negatively perceived by investors, especially if this is done on an individual fund level;
    - NCAs/NMAs could be in a better position than asset managers to assess the need for (ex ante) measures to mitigate liquidity mismatch risks from a system-wide stability perspective, against the cost of signalling effects;
    - activating such tools ex ante outside periods of stress will reduce the costs of adverse signalling effects, which act as barriers to activation in times of stress, and thus strengthen overall financial stability.
- Incentives at the individual fund level may not be aligned with financial stability objectives, which can make intervention by NCAs/NMAs desirable as:
    - individual fund managers may not take the negative externalities of their actions into account, including their contribution to systemic liquidity risk;
    - competition among fund managers may incentivise generous redemption terms that increase the risk of excess redemptions in times of stress due to liquidity mismatch.
- Measures adopted to address liquidity risks have to date been based on national law. Lack of European harmonisation makes coordination across jurisdictions challenging and may compromise the level playing field.

[22] See FSB (2023).

5.3 Principles to design the macroprudential instrument

The primary aim of macroprudential policy for NBFI should be "to ensure that this growing segment of the financial sector is resilient to, and therefore less likely to amplify, adverse shocks".[23] A well designed macroprudential instrument for addressing risks from liquidity mismatch should have two characteristics:

- It should take a system-wide perspective and target liquidity risks that may pose a threat to the financial system.
    - Assessing whether liquidity risks within specific fund cohorts pose a threat to overall financial stability requires adopting a comprehensive approach that considers the interactions between this risk and other vulnerabilities.
    - The activation powers granted to authorities under this new instrument should be explicitly geared towards macroprudential purposes aimed at addressing system-wide risks, rather than microprudential objectives focused on individual (idiosyncratic) liquidity management.
- It should focus on building ex ante resilience.
    - The instrument is not intended to be used as a crisis management tool. Rather, it should aim to mitigate the build-up of vulnerabilities during benign times.
    - However, the instrument should also allow ex post interventions to restore resilience once risks have materialised in a crisis.

Drawing on the successful experience with Article 25 AIFMD, aimed at addressing excessive leverage in funds, the new instrument could use a similar design:

- The design of the instrument should be flexible, allowing NCAs/NMAs to adopt the most suitable measure to address the risk identified, while limiting the costs of intervention.
- The primary example of a measure promoted under the legal instrument would be to grant NCAs/NMAs the power to enforce new notice periods (or extend existing ones) on fund cohorts posing a risk to financial stability. However, they should be able to intervene through other measures on the liability side (such as LMT enforcement) or even possibly on the asset side (such as liquidity buffer requirements) when they deem this more appropriate.
- While the focus of the legal instrument would be to address liquidity mismatches, it could be used to address other sources of liquidity risk that may pose threats to financial stability.[24]

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[23] Eurosystem response to EU Commission's consultation on macroprudential policies for non-bank financial intermediation (NBFI)

[24] For instance, off-balance sheet exposures may be considered, as margin calls can result in important and sometimes unanticipated liquidity needs for funds.

Measures under the instrument could have varying features, the scope of which could be clarified by ESMA guidance. In particular, ESMA guidance could clarify whether measures adopted under the instrument should be specific – for example setting a defined number of days for the minimum notice periods imposed/extended – or set out broad parameters and allow some flexibility for the manager. The NCA/NMA should also be able to frame the transition period to enable a gradual and orderly adjustment and avoid the risk of front-running implementation and potentially creating or amplifying stress (for instance, accelerated redemptions from investors seeking to avoid being caught by the measure).

5.3.1 Introducing a new legal instrument

Since the proposed liquidity instrument largely mirrors the institutional framework established by Article 25 AIFMD as regards leverage, the most straightforward approach to introducing it would be through a direct amendment to this Article (the alternative being to add a dedicated new article). While the instrument should remain flexible, explicit mention of the use of notice periods in Article 25 would provide a solid legal basis for this form of intervention. Alongside amendments to Article 25, adjustments to Article 24 may also be necessary to ensure NCAs/NMAs receive sufficient information to assess liquidity risks within the domestic fund sector. These changes should reflect the outcome of the ongoing work on data (see Annex 3). They should, in particular, include a data-sharing mechanism across jurisdictions.

Changes to the UCITS Directive would also be required to extend the new powers of NCAs/NMAs to address liquidity risk in UCITS. Article 25 AIFMD does not currently have any equivalent in the UCITS Directive. In general, the European macroprudential framework for funds would benefit from extending tools to both AIFs and UCITS. The most straightforward way to achieve this could be by inserting a new article in UCITS Directive, mirroring the new drafting of AIFMD regarding the liquidity instrument.

5.3.2 Complementarity to the FSB recommendations on categorisation

Once implemented in full, the FSB recommendations are expected to see a significant strengthening of liquidity management by OEF managers compared to current practices. The proposed instrument should be seen as a complement to, not a substitute for, these recommendations. In particular, the instrument should complement the implementation of the FSB's categorisation approach, which focuses on the consideration and use of price-based LMTs as part of the day-to-day liquidity management of OEFs, particularly those mainly invested in assets that are less liquid. The FSB recommendations require funds to adjust their use of LMTs and liquidity management practices to the liquidity category of their assets. The proposed macroprudential liquidity instrument would help facilitate implementation of the FSB recommendations on OEFs.

More specifically, the instrument would most likely be applicable in the following instances as a form of backstop, in cases where financial stability risks are not sufficiently mitigated:

- "*Illiquid*" funds (the category 3 bucket under the FSB framework) would be expected to be the primary target of the interventions, given that anti-dilution LMTs do not provide the same first mover advantage reductions for these funds as they do for other categories, when authorities judge that the redemption terms set by asset managers do not sufficiently mitigate financial stability risks;[25]

- "*less liquid*" funds (the category 2 bucket) may also be targeted if managers (i) choose not to implement anti-dilution LMTs as outlined in the recommendations, or (ii) fail to implement the recommendations effectively, for instance if they have very high thresholds for activating swing pricing, or fail to account for market impact adequately in their swing pricing framework.

Although it is expected that the interventions will mostly be relevant to funds in these two categories, powers under the instrument should not be limited to them, as liquidity vulnerabilities could emerge in other types of funds.

5.4 Notice periods are expected to be the main tool of intervention

The main form of intervention to reduce liquidity mismatch under this instrument would be to introduce notice periods, or extend them where they already exist. This type of intervention would bring several economic benefits.

- They are suited to minimise disruption of the economic function and business model of funds that invest in illiquid assets. By targeting the liability side, they minimise the impact on fund performance as well as the provision of longer-term financing. They also have limited effects on the level playing field, since other forms of investment, and in particular direct investment, also face important delays when selling illiquid assets.

- They are simple to enforce and straightforward to implement, which also helps minimise risks of leakage or circumvention.

Notice periods mitigate liquidity mismatches in funds holding illiquid (or less liquid) assets by giving fund managers additional time to efficiently manage asset sales. They also reduce run risk by decoupling heightened redemptions during periods of stress from sales of the underlying asset.

The experience with notice periods for real estate funds in Ireland and Germany shows that such macroprudential liquidity measures can also be

[25] According to IOSCO, anti-dilution LMTs "aim to pass on the estimated costs of liquidity associated with fund subscriptions / redemptions to the subscribing / redeeming investors by adjusting the NAV of the OEF or the price at which they transact."

beneficial from the perspective of fund managers.[26] When notice periods were introduced for Irish real estate investment funds (REIFs), as part of a broader liquidity timeframe requirement, there was no uptick in outflows; on the contrary, they continued seeing inflows. The German open-ended REIF sector has grown substantially since measures were introduced in 2013. In fact, ex ante macroprudential liquidity measures create greater certainty and stability, both for funds and investors, which is an important prerequisite for investment.

Box 2: Illustrative timeline for activating or extending notice periods under the proposed instrument:

1. Based on a systemic risk assessment, the NCA/NMA judges that, for a cohort of funds (i) there is a mismatch between the liquidity of the assets and their redemption terms, (ii) there is inappropriate mitigation of resulting liquidity risk, and (iii) the resultant liquidity risk poses a threat to financial stability.
2. After identifying systemic liquidity risk, the NCA/NMA may decide to use its power to activate notice periods or extend existing ones. In both cases the NCA/NMA may decide either to set explicit durations to the notice periods (expressed in months or days) or grant flexibility to the asset managers.
3. The NCA/NMA informs ESMA of the activation of its measure (ideally there would be informal contact between the NCA/NMA and ESMA before formal decisions are taken). Reciprocation may then be requested (by the proposing NCA/NMA or ESMA) and top-up powers may also be considered, in line with the governance framework proposed in this report.
4. When deciding on the measure, the NCA/NMA may set a transition period after which the measure becomes effective, to allow financial institutions to adapt gradually and in an orderly manner to the new constraint.

5.5 Other measures could be considered in cases where notice periods are not the most suitable instrument

To reflect the diverse nature of the fund industry, the legal instrument should provide flexibility in the form of intervention. While notice periods are most appropriate for funds that invest in illiquid and less liquid assets, ADTs may be better suited for some cohorts. This echoes the ESRB proposal in its reply to the Commission consultation on a macroprudential framework for NBFI, to attach ADTs to corporate bonds funds or other funds investing in assets which are liquid in normal

[26] Notice periods have already been used in several jurisdictions to mitigate liquidity risk in real estate funds. For example, since 2013, investors in German open-ended retail property funds are required to hold their shares for at least 24 months and face a 12-month minimum notice period when redeeming their shares. Similarly, Austria will impose a minimum holding period of 12 months combined with notice periods of a similar length for REIFs from 2027. In 2023 the Central Bank of Ireland recommended that open-ended real estate funds should implement a 12-month liquidity timeframe, split between a notice and a settlement period (the exact timeframe of each being at the discretion of the AIFM).

time but illiquid in periods of stress. A variation of the notice period approach would be to reduce redemption frequencies to allow liquidity demands to be better managed. In some extreme cases of illiquidity, the NCA/NMA may require that some funds adopt a closed-end structure.[27]

In some specific cases, interventions that affect redemption terms may induce side effects in other parts of the financial system or prove insufficient to limit liquidity risk on their own; measures targeting the asset side, such as a minimum level of liquid assets, could then be considered. These should be carefully crafted, however, as they may have a more significant impact on strategy and performance than other liability-side interventions. Overall, the existing broad flexibility regarding the nature of the intervention under Article 25 AIFMD has been widely regarded as a key strength of the current framework. The new instrument should build on this successful experience and adopt a similar approach.

5.6 Governance issues

In line with existing tools addressing systemic risk for funds in AIFMD, this new power should be granted to NCAs/NMAs. It is important to bear in mind the following three key considerations.

- The legal instrument should allow for the variety of national macroprudential governance frameworks. Under Article 25 AIFMD, the competent authority responsible for the application of the instrument is left to be specified under national law. The direct amendment to Article 25 AIFMD should include a reference clarifying that the NCA can also include NMAs in the context of macroprudential tools.

- The NCAs/NMAs of the fund managers' home Member State would be responsible for identifying that liquidity risk in a cohort of funds is contributing to the build-up of systemic risk.[28] The cross-border nature of the fund industry implies that this monitoring of risk will require efficient data sharing across supervisors. Success in the implementation of the instrument is linked to progress in closing data gaps.

- In line with Article 25 AIFMD, this new power would be granted to the NCA/NMA where the asset managers are domiciled. This implies that close coordination with authorities from countries where the cohort of funds of the asset managers are domiciled, invested or marketed will be essential to ensure the effectiveness of measures. Legal work on the instrument should therefore be conducted in close coordination with work on governance, to ensure reciprocation and coordination are adequately integrated in the drafting of the amendment.

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27 For example, in Italy, decree No. 58 of 1998 required that funds investing in unlisted financial instrument or in real estate exceeding 20% of net assets should be closed-ended. In France, some real estate funds (SCPI) also use a pseudo close-ended structure, with investors only allowed to redeem their shares if redemptions are compensated by new subscriptions.

28 Article 24(2) AIFMD already introduces reporting obligations regarding liquidity risks. The indicators should be explicitly specified in level 2 measures through enhancements to the reporting framework.

It is proposed that ESMA, in close cooperation with the ESRB, would perform a facilitation and coordination role, aiming to ensure that a consistent approach is taken by NCAs/NMAs. Powers under the liquidity instrument would be within the scope of the reciprocation and top-up power envisaged for ESMA (see Annex 4).

6 Annex 2: System-wide stress testing

As discussed in the Eurosystem's response to the European Commission consultation on the macroprudential framework for NBFI, introducing a European system-wide stress testing (SWST) exercise would be important for deepening the collective understanding among regulators of systemic vulnerabilities in markets, including those potentially stemming from NBFI entities. The Eurosystem views SWST as a crucial element in identifying and quantifying risks that arise from the interlinkages of NBFIs among themselves and with banks, assessing how different market participants in the EU react to adverse shocks, how their collective actions might affect system-wide risks and, ultimately, how resilient core markets are likely to be the event of adverse shocks.

This Annex sets out proposals on how such an exercise could be designed and implemented in Europe, covering the objectives of SWST, its scope, the high-level methodological approach, data requirements and governance.

6.1 Objectives

As financial markets grow more complex and interconnected, SWST becomes an essential tool for the comprehensive identification of risks. The growing role of NBFIs in financial intermediation has been accompanied by increased integration within the NBFI sector and greater direct and indirect linkages between different financial sectors, marked by overlapping portfolios and cross-border and cross-currency holdings. These features give rise to common vulnerabilities and contagion channels that can amplify adverse shocks, implying significant threats to financial stability. However, these risks can pass undetected under the regular sector-specific micro- and macroprudential assessments. A holistic approach is therefore needed to evaluate risks across the financial system as a whole, tracing contagion and informing policies to address vulnerabilities and amplification effects.

SWST would expand the macroprudential analytical toolbox, filling the gaps between different supervisory authorities and geographies. The added value of SWST at EU level would be twofold. First, in light of broader, EU-wide market coverage, SWST would address potential blind spots that could arise from cross-border interdependencies and exposures and financial links across multiple geographies, which might remain undetected in country-level exercises performed by NCAs and NCBs. In addition, this might help inform the debate on the development of measures reducing systemic risk ex ante.[29] Second, it would complement EU-wide sectoral stress tests performed by the European Supervisory Authorities (ESAs) by exploring interactions between different financial market segments. This

[29] See Eurosystem proposals on a macroprudential tool to contain liquidity mismatch.

could help identify system-wide contagion channels, as well as the institutions and markets that are central to propagating and amplifying stress.

SWST would explore short-term solvency and liquidity dynamics and the ensuing endogenous reactions in the financial system, thereby allowing for a better understanding of vulnerabilities in the financial system and the resilience of core markets. Scenario shocks would be selected that affect the system immediately and at a short horizon. SWST would capture two main mechanisms. First, it would assess the impact of a common scenario or set of shocks for all firms in scope. This might create solvency and liquidity stress and would show how different sectors are exposed to common risk factors. Second, SWST would capture the endogenous dynamics and unveil risk amplification resulting from (un)coordinated behaviour by firms.

SWST would enhance the monitoring of financial stability risks, allow authorities to assess the resilience of core financial markets and could inform macroprudential policies. Ultimately, such system-wide exercises would identify and quantify risks to the resilience of core markets, capturing the relevant channels for the transmission of liquidity and market risk. It would have a clear financial stability perspective and not a microprudential objective.[30] SWST could play a role in the context of the European Commission's initiative to expand the EU macroprudential framework for NBFIs.[31]

SWST would need to be founded on a rich set of granular data (see also Annex 3). A precise assessment of contagion risk requires a clear understanding of direct and indirect exposures, which is only feasible with granular information on each entity's portfolio holdings. Moreover, the fundamental nodes in the financial system, which – if weakened – could accelerate or exacerbate a crisis due to their centrality, can only be identified based on granular, institution-specific data. As highlighted in Annex 3, (i) remaining data gaps, and (ii) the absence of efficient data-sharing mechanisms remain obstacles to a comprehensive analysis of financial markets risks for NBFIs.[32] These issues result in a limited view of financial institutions' portfolios and strategies, concealing the extent to which they are actually exposed to certain risks or counterparties.

The design of such an exercise could benefit from previous experience. Recent SWSTs have employed different approaches. In collaboration with the ESAs, the ECB performed the Fit-for-55 climate scenario analysis in 2024, which featured a cross-sectoral component.[33] While the first-round impacts to the scenario shocks were provided by the relevant ESAs, the ECB SWST top-down model[34] was used to calculate endogenous reactions to these impacts. In addition to assessing the

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30 This implies that SWST would not result in pass or fail scores for individual financial entities.

31 See Macroprudential policies for non-bank financial intermediation (NBFI).

32 Eurosystem response to EU Commission's consultation on macroprudential policies for non-bank financial intermediation (NBFI)

33 See Fit-for-55 climate scenario analysis.

34 See Sydow et al. (2024a), "Shock amplification in an interconnected financial system of banks and investment funds", *Journal of Financial Stability*, Vol. 71, 101234; also Sydow et al. (2024b), "Banks and non-banks stressed: liquidity shocks and the mitigating role of insurance companies", *Working Paper Series*, No 3000, ECB, Frankfurt, November.

resilience of the financial system while accounting for endogenous dynamics, the exercise led to enhanced collaboration across participating authorities. The Bank of England (BoE) carried out a system-wide exploratory scenario (SWES) exercise in 2024, involving a small set of core financial institutions and a two-phase approach (asking participants to assess the impact of an adverse scenario and their consequent reactions in the first phase and aggregating the individual answers to derive the overall system behaviour in the second).[35] The analysis integrated the market perspective and put a spotlight on frictions which can arise from firms not internalising systemic interactions stemming from market participants' reactions to shocks. The Banque de France is currently carrying out a similar exercise jointly with the French Prudential Supervision and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR) and the French Financial Markets Authority (*Autorité des marchés financiers* – AMF). The exercise involves a bottom-up and a top-down element. At the EU level, the ESRB recently published a report on systemic liquidity risk (the risk of simultaneous liquidity difficulties at multiple financial institutions affecting key markets), outlining a monitoring framework to assess risks for key entities and markets.[36] An EU-wide SWST exercise could build on these recent experiences and available modelling approaches.

6.2 Scope

The SWST exercise should target entities active in financial markets in the EU, with the selection of key entities based on a structured identification approach tied to the types of risks and core markets it aims to assess. The institutions in scope would be headquartered in the EU or have a significant role in EU markets. The key risks to be covered are market and liquidity risk, concentrating on immediate shocks and short-term dynamics. However, the interplay of solvency and liquidity risk should also be part of an SWST exercise. Market stress scenarios can increase (counterparty) credit risk (e.g. smaller distance to default, higher probabilities of default) for affected entities, which could trigger protective actions by investors, such as increased margin calls or a reduced willingness to provide funding.[37]

The key markets to be assessed should be based on an approach that identifies what ultimately matters for financial stability in the EU. In its work on systemic liquidity risk, for example, the ESRB used the following criteria: (i) markets that serve as liquidity buffers; (ii) markets used as pricing benchmarks; (iii) markets that are essential to provide liquidity, and; (iv) markets that are key for entities subject to funding liquidity risk. The approach identified sovereign bond markets, unsecured short-term funding markets, covered and corporate bond markets, interest rate and FX derivatives markets and repo markets. Stock markets and asset-backed markets, e.g. residential mortgage backed securities (RMBS), may be in

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35 See Bank of England (2024), "The Bank of England's system-wide exploratory scenario exercise final report", London November.

36 See ESRB (2025), "Systemic liquidity risk: A monitoring framework", Frankfurt, February.

37 Credit risk in loans to non-financials and life insurers' surrender risk are excluded as they fall outside the scope of SWST exercises. Losses on credit risk or life surrender risk materialise in the medium run (usually within a year), while market risk materialises within days or weeks.

scope as well, given their importance for many investment funds. The BoE's SWES, which considered a severe shock to credit spreads and interest rates, can also serve as an example for which markets to include. Its main focus was on the core sterling bond markets (government and corporate). In addition, the importance of including repo, cash and derivative markets was emphasised.

From a liquidity risk perspective, banks, investment funds (and MMFs), insurers and pension funds would meet the ESRB criteria for key entities in the context of systemic liquidity risk.[38] These sectors represent around 70% of the total financial assets of the euro area financial corporation sector.[39] Due to their large footprint in the financial markets, a focus on these sectors would make it possible to capture relevant interlinkages and system-wide amplifications across the financial system resulting from both the asset and liability sides, as well as from cross-border interconnections. In addition, while pension funds represent only 3% of the total assets of the euro area financial corporation sector,[40] they are large players in interest rate swap markets and at very long sovereign maturities. Central counterparties (CCPs) could also be considered due to their central role in repo and derivatives markets.

In terms of exposures, bonds, fund shares (including MMFs), equities, repos, derivatives and bank deposits would be the focus of the SWST, but off-balance sheet exposures would also need to be considered. On the one hand, securities and derivatives are the assets that determine the overall market risk of a portfolio, as their market price is affected immediately whenever a sudden shock occurs. On the other hand, repos and derivatives can generate margin calls triggering liquidity shortages (the former due to a drop in value of the collateral, the latter due to a fair value adjustment of the instrument itself). In terms of dynamics, these assets will make it possible to track concentration of exposures (in terms of both portfolios and counterparties) and liquidity management reactions such as initiation of new repos and fire sales. Bank deposits are the most liquid assets that can be used to meet outflows or margin calls. Cash transfers between non-bank institutions will also entail deposit transfers between banks. Finally, including off-balance sheet exposures (e.g. credit lines) could additionally shed light on hidden liquidity risks that might arise under stress.

When deciding which institutions to include in the SWST, the scope needs to strike a balance between representativeness, feasibility and relevance to the market being assessed. The European Banking Authority (EBA) EU-wide stress test in 2025 involved 64 banks,[41] covering 75% of EU banking sector assets. These criteria for coverage and representativeness may not easily translate to other sectors, like investment funds. One possible approach would be to explore the who-to-whom accounts to identify the relevance of fund assets across different regions or

[38] The ESRB defines key entities as (i) entities exposed to liquidity transformation, (ii) entities whose liabilities are used as liquidity buffers and (iii) entities with a large market footprint in key markets. See ESRB (2025).

[39] Based on quarterly sector accounts data for the first quarter of 2025.

[40] Figures for the EU are on aggregate aligned to those for the euro area.

[41] 175 banks were classified as systematically important institutions as of May 2025: The EBA updates list of other systemically important institutions | European Banking Authority.

markets. Based on this, the largest entities in the most relevant geographies could be identified to cover a target percentage of total assets, given the relative size of each geography. For insurance corporations the list of global systemically important insurers (G-SIIs)[42] could be considered. Of the 14 CCPs in the EU,[43] the analysis could be restricted to a relevant subset depending on the scenario and exposures considered. The delineation of the universe could also leverage on stress tests that are already conducted at national level for both funds and insurance corporations. Ultimately, the decision on institutions in scope and proportionality also depends on the frequency of the exercise and the degree of involvement of the industry.

6.3 Methodology

The type of risks and market segments the stress test would cover are a determining factor for methodology. This section outlines considerations that are relevant when deciding on key design features such as the horizon, the scenario and the pros and cons of top-down, bottom-up or hybrid approaches. These features have implications for the frequency at which a system-wide exercise can be run, as well as the type of output.

To capture the abrupt and sudden stress episodes that affect financial markets, the SWST should focus on a short-term horizon. Stress in key markets (securities, repos, derivatives) and amplification due to direct interconnections between financial institutions typically unfold within days, whereas credit risk materialises over a medium to long-term horizon of several quarters or even years. Examples of such short-term stress tests include the BoE SWES[44] (ten-day horizon), the ESMA CCP stress tests[45] (seven-day horizon) and the ESMA MMF liquidity stress tests[46] (seven-day horizon).

The relevant risks that the SWST aims to capture determines the methodological approach, although limitations need to be acknowledged. Ideally, the SWST should be flexible enough to accommodate different types of risk scenarios: macro-financial shocks or a flash crash caused by automated trading, but also operational risks related to, for instance, a cyberattack or the outage of a critical service provider. However, the heterogeneity of potential risk scenarios might entail a methodological complexity that makes a quantitative assessment challenging. While established approaches to assessing the impact of macro-financial shocks exist, approaches to the quantification of operational risks are less well developed and might be integrated into SWST at a later stage, despite their potential to generate system-wide spillover and amplification effects.

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42 As defined by the International Association of Insurance Supervisors (IAIS) and the Financial Stability Board (FSB).

43 See ESMA (2026), "List of Central Counterparties authorised to offer services and activities in the Union", Frankfurt, January.

44 See Bank of England (2024).

45 See ESMA (2023), "Framework for the 5th ESMA Stress Test Exercise for Central Counterparties", Paris, May.

46 See ESMA (2024), "Guidelines on stress test scenarios under the MMF Regulation", Paris, February.

The nature of the scenario would be associated with the risks (e.g. market and liquidity risk) that the exercise intends to capture. Identified risk would result in the calibration of shocks to relevant variables. For each risk included in the scenario, relevant (macro-financial) variables would be considered, and quantitative models would be required to calibrate the shocks. Due to the short-term focus of the SWST, scenario calibration should concentrate on financial market variables. Core variables include interest rates, credit spreads, equity prices and exchange rates. Additional variables may enhance the scenario's plausibility and analytical value, such as volatility indicators and market liquidity metrics.

The selected variables should comprehensively reflect market risk, counterparty credit risk and liquidity risk, depending on the stress test's coverage. It is essential to ensure consistency between the scenario variables and the stress test models. This is particularly important in bottom-up exercises, where a sufficiently rich set of scenario variables helps prevent participating financial institutions from making their own assumptions, supporting comparability and robustness.

The impact of the shocks requires an adequate modelling approach for the direct impact on entities and markets. The methodology should clearly define how shocks are transmitted to financial corporations and markets, along with the different transmission channels. For instance, market shocks will trigger mark-to-market losses on portfolio holdings, but also a decline in the value of the collateral posted (collateral calls), a decline in the value of the initial margin posted (initial margin calls) or mark-to-market losses on derivative positions (variation margins).[47] However, the modelling approach needs to take into account that entities do not always value assets on a mark-to-market basis, e.g. when banks intend to hold bonds to maturity intention they are valued at amortised cost.

Shocks would also cause behavioural reactions by market participants. The SWST would move past the usual static balance sheet assumption and consider responses to a stress scenario. Reactions include actions by market participants in scope, as well as others not directly in scope (e.g. investors and counterparties). Adverse shocks might trigger reactions from investors (redemptions for funds), policyholders (lapses and surrenders for insurance companies) or depositors (withdrawals), which would need to be modelled or assumed. For entities in scope, the approach may include binding constraints to guide participant behaviour. For example, investment funds may need to maintain a predefined portfolio composition. Such constraints help avoid cherry picking, like selling only liquid assets and leaving the investment fund exposed to illiquid holdings. In the case of banks, a liquidity coverage ratio needs to be met in the scenario, i.e. a regulatory constraint already in place before the stress event occurs. The approach could also consider additional tools available to entities in scope to face the shocks (e.g. use of new repo borrowing or credit lines to obtain cash), possibly with limits on the use of new repo contracts.

[47] The reduction in the free float of sovereign bonds due to central bank holdings should also be considered, as this might have consequences for the repricing of these assets.

Top-down stress tests are based on models developed by the authorities responsible for the exercise. These models are tools that assess financial system resilience by simulating hypothetical scenarios and the potential impacts of specific policy interventions. They can be used to translate the impact of a given scenario into entity-specific losses, but they can also trace how shocks cascade through interconnected systems and generate feedback effects. This makes them particularly effective for the SWST, as they can reveal potential vulnerabilities and support the formulation of macroprudential policies. Since they do not require extensive interaction with the industry, top-down models enable authorities to conduct timely and frequent analyses, which can be particularly useful in face of sudden changes in economic conditions. Nevertheless, such top-down models are sensitive to the assumptions on which industry behaviour and transmission channels are modelled. Being run by authorities, they lack detailed entity-specific knowledge and are subject to model uncertainty. Consequently, the quantitative results they produce should be interpreted with care – and these models may not reveal new insights to the behavioural responses of market participants to adverse shocks.

Conversely, bottom-up stress tests rely on projections reported by individual institutions that simulate how they would respond to adverse scenarios based on their specific exposures, business strategy and internal risk models. A bottom-up perspective provides supervisors with an inside view into potential vulnerabilities within specific entities, evaluates their capacity to absorb shocks, and helps understand the pathways through which shocks may spread. In addition, the bottom-up perspective provides important insights into how agents adjust their strategies, reallocate their portfolios, and manage liquidity in reaction to stress, which is a key objective of the SWST. These behavioural patterns are themselves valuable insights, offering a window into how institutions respond to adverse developments and how they assume others will react in these situations. This information can help improve the design of policy tools and modelling frameworks. However, the outcomes of bottom-up exercises depend on the ability of institutions to provide accurate answers. They therefore need a thorough quality assurance process for reporting from supervised entities, which – in combination with the required interaction with the industry on scenario and methodological assumption – can be very resource-intensive.

While bottom-up tests offer important insights into the industry's behaviour, individual responses need to be aggregated and checked for consistency to obtain a system-wide view. Since the central element of the SWST is the interaction across entities once the scenario unfolds, a purely bottom-up exercise cannot guarantee that all reported reactions in the system are coherent with each other. Authorities need to aggregate individual firms' responses, assess their collective implications for the relevant markets, and revert to the industry with the system-wide dynamics they have identified at the aggregate level, based on the individual reactions to stress.[48] If the intention is to quantify systemic stress, this second-round interaction would likely have to be complemented by top-down models

[48] For a prominent example see Bank of England (2024).

that simulate how portfolios are repriced and liquidity gaps closed in reaction to the first-round shocks embedded in the scenario.

In the context of the SWST, a hybrid stress test approach can capture both the diversity of responses across different types of institutions and the aggregate effects of scenario-implied shocks – and is therefore likely to be most effective. By linking institution-specific responses (bottom-up) with centrally modelled (top-down) propagation channels, the interaction between the two can reveal amplification mechanisms and feedback loops that cannot be observed using a single method. The hybrid framework also facilitates the analysis of situations in which actions by some participants – such as asset sales to meet margin calls – affect market prices, liquidity and funding conditions, thereby influencing the behaviour of others. When appropriately designed, this dynamic interaction can capture second-round effects, where individual responses collectively generate new systemic pressures, potentially providing a more realistic representation of crisis dynamics, while also providing useful insights to market participants themselves, strengthening risk management at an industry level.

The frequency at which a European SWST exercise could be conducted depends on whether it is top-down or bottom-up/hybrid. As bottom-up stress tests rely on projections submitted by individual institutions, they are resource-intensive and require substantial coordination and interaction among stakeholders, both during the preparatory phase and throughout execution. To mitigate the operational costs associated with such exercises, and considering other bottom-up stress tests that entities may be required to participate in (such as the EBA banking stress test), a system-wide bottom-up exercise could reasonably be launched at a frequency ranging between three and five years. However, a full-blown bottom-up stress test would need to be weighed against the ambition to simplify supervision and reduce the supervisory burden for financial institutions. Top-down stress tests are based on models developed and maintained by the authorities responsible for the exercise and can be used at higher frequencies to generate timely projections. A system-wide top-down exercise could therefore be launched at a higher frequency, for example every year or two years. However, being completely reliant on models, top-down stress tests can only be as reliable as the models that underly them, and are conditional on data availability. Finally, to the extent that hybrid stress tests rely on bottom-up elements, for instance for first-round impacts or specific risk areas, their implementation would still necessitate significant time and resources, suggesting a similar frequency as a bottom-up exercise. A hybrid exercise, however, could also be designed in a way that the bottom-up part is run at a lower frequency, with top-down models complementing the risk assessment at higher frequency. These hybrid exercises can also leverage bottom-up stress tests already conducted, e.g. by NCAs or ESAs, in order to limit the additional burden for financial institutions. The top-down models, in turn, would be improved and benefit from the information gathered in the less frequent bottom-up exercises.

An SWST exercise would generate several important types of output. First, it would make it possible to identify risks that originate from interaction between different financial entities, either from portfolio overlaps, concentration risk or

common vulnerabilities. Second, it would be a means of discovering key contagion and amplification channels that cause financial shocks to a specific segment of the financial market to spill over to other parts of the system. Third, it would allow authorities to detect those markets, and possibly institutions, which play a key role in the propagation and amplification of financial stress under a given scenario. Fourth, by providing insights into systemic vulnerabilities, an SWST exercise would strengthen participants' risk management capabilities. Finally, in particular with a bottom-up set-up for the first-round impact, it would allow authorities to learn about the potential actions that financial institutions might take and how these would stabilise or destabilise core markets. All of these insights would be highly valuable to inform the design of targeted macroprudential measures and their potential effects in acute stress events.

6.4 Data

The SWST should in the first instance be grounded in granular data already available within the ESCB, the ESAs, and/or national authorities, to avoid increasing the reporting burden on financial institutions. Such granular data are essential to ensure accurate model calibration. They allow for a deeper understanding of the financial interlinkages and portfolio overlaps which produce contagion mechanisms, help disentangle the main sources of risk, and capture heterogeneity in outcomes across sectors and institutions.

Several granular data bases are available for euro area institutions, whereas for non-euro area EU financial institutions statistical, supervisory and commercial data may need to be combined. A hybrid stress test approach could also envisage tailored, ad hoc requests for information from selected participants (rather than new, permanent data collections), which could help fill data gaps in a targeted, cost-efficient way.[49] Data sharing agreements are very important to ensure that data are complete and reliable. For the euro area the SWST could leverage the following granular statistical databases that contain entity and security-level data on both banks and NBFIs, providing a robust foundation for analysis and risk assessment.

- **The Centralised Securities Database (CSDB)** is a security-by-security reference database that contains data on instruments, issuers, prices and ratings for debt securities, equity instruments and investment fund shares issued worldwide.
- **Securities Holdings Statistics (SHSS and Securities Holdings Statistics Group (SHSG) data)** provide portfolio holding information at security level. While SHSS only contains data aggregated by resident sectors, SHSG provides granular securities holdings for resident large banking groups. However, in certain Member States the data for SHSS are also compiled at entity level.

[49] This approach was, for example, taken in Bank of England (2024).

- **The Register of Institutions and Affiliates Database (RIAD)** is a central reference database jointly managed by the ECB and NCBs within the ESCB providing detailed information on individual entities (including NBFIs) and their affiliations. It plays a critical role in linking and integrating multiple datasets by offering a consistent framework for entity identification across statistical and supervisory domains.

- **EMIR and SFTR data** collected by ESMA contain information about exposures in the derivatives market and repo markets respectively at entity level for all firms in the EU.

- **Monet Market Statistical Reporting (MMSR)** is a dataset that collects data at transaction-level for a representative sample of euro area reporting agents particularly relevant in the money market. The scope includes the secured, unsecured, foreign exchange swap and overnight index swap market segments.

This integrated data landscape provides a solid foundation for the SWST, enabling comprehensive tracking of financial links across both market-based and liquidity-based exposures.

Supervisory data should also play a pivotal role. The ESAs collect a number of relevant data from their supervised entities which would support the design and implementation of an SWST exercise. ESMA, in collaboration with NCAs, collects granular information under regulatory frameworks such as the AIFMD, UCITS Directive and the MMFR. National authorities gather data on assets, liabilities and solvency for insurers and pension funds, which are shared with European Insurance and Occupational Pensions Authority (EIOPA) and the ECB. The EBA's standardised reporting frameworks, such as common reporting (COREP) and financial reporting (FINREP), provide sector and risk-specific data for banks to assess shocks and address data gaps, covering areas like balance sheets composition, capital adequacy, asset quality, funding and liquidity.

Aggregated sectoral data can be instrumental in guiding the prioritisation and focus of such work, while also helping address existing data gaps. For example, who-to-whom accounts make it possible to trace debtor-creditor relationships between institutional sectors, both in terms of stocks and flows. This provides a comprehensive view of intersectoral linkages and potential systemic vulnerabilities. Furthermore, given the limited availability of data for European countries outside the euro area, it is essential to complement the analysis with sector-level information (such as financial accounts, balance sheet data and other financial indicators) available at the ECB for all EU financial institutions.

An SWST exercise can draw considerable information from combining statistical, supervisory and commercial data, each of which offer distinct advantages and limitations. Statistical data are generally more granular when compared to other data sources, provide broad coverage of both bank and non-bank sectors and are well-suited to mapping structural vulnerabilities, but their low timeliness (they are often only available with annual or biennial lags) limits usefulness for live crisis monitoring. Supervisory data are closely tied to prudential

metrics such as capital, liquidity and exposures, allowing for precise assessments of financial resilience; however, they are often constrained by confidentiality rules and inconsistent definitions across jurisdictions, complicating aggregation at the system level. Commercial data offer timely signals by obtaining market insights such as durations and ratings, and capture global linkages, making them valuable for real-time monitoring, though they tend to be less representative and are costly to use systematically.

Effective data sharing requires established cooperation mechanisms, supported by MoUs with national and international bodies. Given that the necessary data are collected by multiple authorities across the EU (and that, in certain cases, detailed data gathered by national authorities are not shared with the same level of granularity), effective data sharing becomes essential, notably if national data are comparable across jurisdictions. These MoUs should establish stable frameworks for collaboration, enabling secure and consistent data exchange while ensuring confidentiality is maintained.[50]

6.5 Governance

The governance of a European SWST exercise would ultimately be determined by the mandate to be assigned by EU co-legislators. Following the report by the High-Level Group on the ESRB Review, the ESRB has been tasked by its General Board to conduct a top-down system-wide stress tests covering the entire EU financial sector. The High-Level Group also recommended that the mandate for such system-wide exercises should be reflected in the revised ESRB Regulation.[51] It could integrate the current sectoral stress tests conducted by the ESAs and would leverage the expertise of the ECB.

EU-wide sectoral stress tests are governed by the respective ESAs, whereas NCAs or NCBs are responsible for stress tests at the Member State level. To avoid duplication and ensure coherence, European SWST should build on the mandates, expertise and cooperation mechanisms of the ESRB, the ECB/SSM, the ESAs, microprudential supervisory authorities, NCAs/NMAs and NCBs at the appropriate level. The exercise's set-up (top-down, bottom-up, or hybrid) should guide design and be consistent with the missions assigned by EU regulations.

Considering the current mandates and roles for stress testing at the EU level, the following observations can be made.

[50] See also the data proposals in Annex 3.

[51] Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (OJ L, 15.12.2010, p. 1).

- **The ESRB** is responsible for macroprudential oversight of the EU financial system[52] and designs macro-financial scenarios used in EU-wide exercises conducted by the ESAs. It has developed a monitoring framework for systemic liquidity risk and published corresponding indicators for the euro area.[53] Moreover, the report of the High-Level Group on the ESRB Review recommends that the ESRB should apply and hone its system-wide approach to macroprudential policy.[54]

- **The ESAs (the EBA, EIOPA, ESMA)** monitor and assess market developments in their areas of competence and are explicitly mandated to contribute to financial stability at EU level.[55] They regularly run sectoral stress tests (banking, insurance and MMFs/CCPs) supported by the ESRB and the ECB for scenario design and parameter calibration.

- **The ECB** conducts annual stress tests on the banks under its direct supervision. Every two years, the stress test on the largest euro area banks is conducted in cooperation with the EBA's EU-wide stress test. The ECB also maintains a suite of top-down models for assessing system-wide liquidity risks that could be applied to a top-down system-wide stress test as proposed in this note.

The Fit-for-55 climate risk scenario analysis requested by the European Commission and jointly conducted by the ESAs and the ECB respected these roles. The scenario for the Fit-for-55 climate risk analysis was designed by the ECB, while the exercise was governed by a project steering group that included members from the ESAs and the ECB. The final report was approved and published jointly by the ESAs and the ECB.[56]

The roles and responsibilities of all participating authorities as well as decision-making processes should be clearly articulated from the outset, relying as much as possible on existing structures and resources while ensuring smooth coordination across all levels. A transparent accountability framework should be established for each phase of the exercise (design, execution, analysis, publication). For bottom-up exercises, stakeholder consultation, including inputs from the industry, should be embedded in the process to strengthen both technical robustness and acceptance of results. For top-down exercises the governance framework should embed data as well as model sharing governance agreements to ensure all parties involved have a clear understanding of the

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52 See Article 3.1 of EU Regulation No 1092/2010 : "The ESRB shall be responsible for the macro-prudential oversight of the financial system within the Union in order to contribute to the prevention or mitigation of systemic risks to financial stability in the Union that arise from developments within the financial system and taking into account macroeconomic developments, so as to avoid periods of widespread financial distress (…)".

53 See ESRB (2025).

54 See ESRB (2024), "Building on a Decade of Success – Report by the High-Level Group on the ESRB Review", Paris, December.

55 See Article 1.5 of EU Regulation No 1093/2010 and EU Regulation No 1095/2010 as well as Article 1.6 of EU Regulation No 1094/2010: "The objective of the Authority shall be to protect the public interest by contributing to the short-, medium- and long-term stability and effectiveness of the financial system, for the Union economy, its citizens and businesses (…)".

56 See Fit-for-55 Reports released on the website of the ECB, EBA, ESMA and EIOPA.

relationship between shocks and stress test outcomes. The governance framework should also remain sufficiently flexible to allow for rapid adjustments in the set-up and execution of the SWST, for example if risks emerge or macro-financial shocks materialise.

7 Annex 3: Data

Data are a critical enabler for assessing and enacting measures to mitigate potential vulnerabilities in the NBFI sector. In recent years, considerable progress has been made in filling data gaps in the NBFI segment, yet significant shortcomings remain. These are related to the following aspects.

- **Access to data:** relevant data are reported to a given institution but not accessible to all relevant authorities. This implies a need to enhance data access and sharing.
- **Data quality:** relevant data are available to a given institution, but the quality of the data can be poor. This implies a need to enhance data quality.
- **Inconsistent reporting:** relevant data are available to a given institution but reported in inconsistent ways across datasets, hindering effective risk analysis. This implies a need to enhance harmonisation.
- **Data gaps:** relevant data are simply not available at all. This implies a need to collect new data.

This Annex sets out proposals for addressing some of the key shortcomings in relation to data. At the international level, ongoing work by the FSB is considering several of these gaps, including developing consistent leverage metrics across the NBFI sector,[57] enhancing metrics to assess liquidity mismatches, such as improved data on redemption terms for investment funds,[58] and reliably assessing NBFI liquidity preparedness for margin and collateral calls.[59] Alongside these global initiatives, significant progress needs to be made at the European level.

7.1 Identification of shortcomings

To identify and illustrate the data limitations that constrain central banks and NMAs in evaluating financial stability risks at both national and European levels, this note is based on: (i) three targeted case studies, bringing to life some of the data challenges (refer to sub-annex 1) and (ii) an identification of NBFI-related data challenges faced by financial stability authorities.

7.1.1 Case studies

The three case studies set out to assess risks and vulnerabilities in specific areas of the NBFI sector and document the key data-related obstacles that

[57] FSB (2025b), "Leverage in Nonbank Financial Intermediation: Final report", Basel, July.

[58] FSB (2025c), "Enhancing the Resilience of Nonbank Financial Intermediation: Progress report", Basel, July.

[59] FSB (2024), "Liquidity Preparedness for Margin and Collateral Calls: Final report", Basel, December.

hinder a comprehensive analysis. The three case studies focus on (i) cross-border, cross-fund investments of mutual funds, (ii) hedge funds, and (iii) private credit funds – all areas of growing importance in the financial system. A summary of the data-related challenges is included in this section, while the complete case studies are included in sub-annex 1.

The first case study focuses on cross-border, cross-fund investments of open-ended mutual funds, illustrating how barriers to data sharing across authorities can hinder risk assessment. While risks related to these cross-fund holdings are well-known and have been documented,[60] the case study reveals that current data-sharing arrangements both across borders and between central banks and supervisors pose a major obstacle to financial stability risk analysis in the NBFI sector within the euro area. The study shows that cross-border fund investments are substantial, both at the EU level and in Member States, and that considerable linkages exist between various fund domiciles within the EU. Crucially, cross-border fund investments currently outweigh domestic cross-fund holdings at the EU level and in several jurisdictions and might have a strong impact on the overall risk assessment of cross-fund holdings within the EU, as they might dampen or further exacerbate domestic risks. These risks cannot be comprehensively assessed for one jurisdiction, or the EU as a whole, without access to granular fund-level data for funds domiciled in other jurisdictions. However, the current legal and operational data access and sharing frameworks do not enable the necessary cross-jurisdictional data sharing for financial stability purposes. Essentially, as the case study points out, data gaps related to cross-border fund linkages exist at the level of both single jurisdictions and the EU as a whole,[61] and could be reduced by sharing existing data. Consequently, targeted changes to the AIFMD and UCITS Directive are proposed alongside a centralised data access and sharing mechanism, to enable efficient cross-border sharing of fund data reported nationally pursuant to the AIFMD and UCITS Directive, e.g. by means of a centralised data hub.

The second case study focuses on hedge funds, illustrating issues ranging from data access and sharing, to data quality and harmonisation, and data gaps. Hedge funds play a key role in major securities markets, including in euro area sovereign bond markets. ECB analysis finds that hedge funds are increasingly important in absorbing euro area government bonds, but their activity may amplify volatility and financial stability risks.[62] The Bank for International Settlements shows that leveraged investors such as hedge funds engaged in forced selling during the COVID-19 pandemic, prompting central bank intervention.[63] Recent Fed analyses highlight leveraged cash-futures basis trades as a financial stability risk.[64] The case study combines various data sets and finds, among other things, that data quality

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60 See Fricke, D. and Wilke H. (2023), "Connected Funds", *The Review of Financial Studies*, Vol. 36, No 11, pp. 4546-4587.

61 As ESCB access to data reported pursuant to AIFMD and the UCITS Directive is currently limited to statistical purposes, the cross-fund holdings risk analysis discussed cannot be conducted either at the ECB or at the level of individual NCBs.

62 See ECB (2024), "Hedge funds: good or bad for market functioning?", ECB blog post, 23 September.

63 See Schrimpf, A., Shin, H. S. and Sushko V. (2020), "Leverage and margin spirals in fixed income markets during the Covid-19 crisis", BIS Bulletin, No. 2, Basel, April.

64 See Barth, D., Kahn, R. J. and Mann, R. (2023), "Recent Developments in Hedge Funds' Treasury Futures and Repo Positions: is the Basis Trade "Back"?", FEDS Notes, Washington, DC, August.

varies across and within key datasets, such as the SFTR, EMIR, and the AIFMD. Additionally, inconsistent levels of granularity (e.g. reported fund strategies, investors, leverage, etc.), reporting frequency and the inconsistent use of identifiers (e.g. International Securities Identification Numbers or ISINs and LEIs), as well as fund categories across datasets, impede the comparison and merging of data, which can enable a comprehensive risk assessment. For instance, in EMIR data, some of the underlying exposures are reported as baskets of securities rather than at ISIN level, which is needed for financial stability analyses. Sufficient granularity and mandatory use of international identifiers (ISINs, LEIs) are critical for improving data quality and usability. Standardised and internationally recognised definitions or classifications of concepts, such as the definition of hedge funds and their strategies, could improve the quality of reporting. Regarding data gaps, the quality of vulnerability metrics is particularly poor for measures of synthetic leverage. A standardised metric for synthetic leverage and extended reporting on ultimate beneficiaries and borrowing sources is essential for financial stability analysis. Furthermore, enhanced cross-border data sharing would significantly improve the ability to assess global risks. Currently, the analysis that can be undertaken to assess financial stability risks arising from hedge fund activity in sovereign bond markets is incomplete from a national perspective without full access to data on cross-border activity. Furthermore, it will also be very difficult to undertake any such analysis at the EU level without relying on third-party datasets, which may often be incomplete. Enhanced data access and sharing within the EU would address some of these challenges, but still leave gaps due to the strong interlinkages of the EU fund sector with USA, UK and Cayman Island-based funds.

Finally, the third case study focuses on private credit funds and also points to a range of data limitations hindering risk assessment. Private credit (or "private debt") refers to direct lending by non-banks, mainly private credit funds, to non-financial companies.[65] This growing asset class brings benefits in terms of strengthening financing channels to the real economy as an alternative to the banking system, but also poses potential vulnerabilities in terms of migration of risk from closely regulated banks to more opaque and less regulated NBFI entities. Data limitations hinder a comprehensive assessment of risks. As with all AIFs, harmonised data on private credit funds do not allow for portfolio analysis at the single position level. Beyond this general data gap, private credit funds face additional challenges due to their core activity of loan origination: AIFMD reporting attributes are insufficient to analyse these positions, which often lack ISINs or standard identifiers. Identifying private credit funds is also difficult, as the current ESMA Guidelines[66] do not define a specific "private credit" AIF category at the entity level. And, at the activity level, mixed or other funds not classified as private credit may also intermediate private credit as a portion of their portfolios. Currently, portfolio analysis is only possible at an aggregate level, with AIFMD reporting distinguishing just two loan categories (leveraged and other loans), providing limited detail about the actual type of loan. Expanded asset type categorisation is therefore

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65 See IOSCO (2023), "Thematic Analysis: Emerging Risks in Private Finance - Final Report", Madrid, September.

66 See ESMA (2014), "Guidelines on reporting obligations under Articles 3(3)(d) and 24(1), (2) and (4) of the AIFMD", Paris.

needed to better capture private credit activities across all fund types. Furthermore, AIFMD reporting is limited to direct, first-layer investments and does not require look-through reporting, hindering risk assessment of indirect exposures through fund layers or special-purpose vehicles (SPVs). The current EU legal definition of "exposure" does not fully capture the complexity of private credit investment chains. The combination of multi-layered investments and the narrow, legal definition of exposure leaves room for a certain amount of hidden leverage (e.g. in the case of leveraged buyouts).[67] Consequently, a number of data improvements are needed relating to (i) fund identification, (ii) data on the direct and indirect activity of private credit, and (iii) the use of LEIs to help quantify total borrowing by single names. Such improvements are relevant at both EU and jurisdiction levels and would require amending existing AIFMD reporting obligations to better calibrate them to the specific features of private credit funds. As in the other case studies, data sharing across authorities is key to enhancing the assessment of risks originating from private credit at the single jurisdiction level, considering the cross-border nature of this sector.

Overall, these case studies highlight current data shortcomings in important NBFI segments. The inherent complexity and opacity of the multi-layered structures of NBFI entities constitute a common, overarching theme across all three case studies. These structures use layers of legal entities, such as feeder funds or SPVs – for tax, risk management, or other purposes – which can obscure ultimate exposures and overall leverage due to a limited look-through to the underlying exposures and limits to cross-border data access and sharing. The current fragmented data landscape poses a major obstacle when analysing these complex structures and conducting financial stability risk assessments. Additional common themes include challenges in the identification of entities or assets as well as issues with the granularity of reported data on assets and entities. There is an element of overlap between all case studies with regard to the regulatory basis. In particular, all three reference the current AIFMD and UCITS Directive frameworks and illustrate similarly acute data access and sharing issues.

7.1.2 NBFI-related data issues faced by financial stability authorities

In addition to the case studies, broader NBFI-related data issues encountered when analysing risks and vulnerabilities have been identified. The issues noted largely reinforce those illustrated by the case studies and primarily arise from insufficient data access and sharing, data quality and harmonisation issues, or data gaps. The following presents a summary of some selected issues for which improvements strike a particularly effective balance between potential benefits for financial stability work and a low reporting burden for market participants:

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[67] With specific reference to leverage, according to Art. 6.3 of Regulation (EU) 231/2013 only "third parties controlled by the relevant AIF shall be included in the calculation of the exposure, where the structures referred to are specifically set up to directly or indirectly increase the exposure at the level of the AIF". This rule provides an exception for AIFs whose core investment policy is to acquire control of non-listed companies or issuers (leveraged buyouts), where indirect exposure is not computed in the calculation of leverage.

- **Improving data quality, consistency and harmonisation within and across core datasets such as EMIR, the SFTR, and the AIFMD.** These datasets are affected by data quality and harmonisation issues, including the presence of implausible or extreme values, unexplained drops in reporting volumes, and frequent outliers or errors in reported figures. These problems are compounded by inconsistent reporting practices across entities.

- **Identification and monitoring of (i) hedge funds and (ii) private credit funds, as also illustrated in the case studies.** Currently, hedge funds are not explicitly categorised within existing sector classifications such as ESA and NACE, which hampers the ability to analyse their activities and assess their interconnectedness with banks and other financial institutions.[68] Similarly, current reporting frameworks such as the AIFMD do not allow identification or tracking of private credit funds, nor do they provide sufficient granularity to capture the diverse forms of lending these funds undertake. These limitations hinder the ability to assess the scale and risk profile of private credit activities within the broader financial system.

- **Procedural inefficiencies.** Currently, the procedures for sharing outputs – even when limited to Eurosystem member institutions – are often lengthy and cumbersome, particularly in cases where not all institutions have uniform access to European data sources. For example, even sharing analyses based on European investment fund data within the Eurosystem can be delayed by complex approval and access protocols. A similar issue concerns the publication of data. Legal restrictions on sharing and publishing aggregated data can also be overly restrictive. This is of particular importance for SFTR data, where interpretation of legal guidelines around the sharing of data aggregated from fewer than three entities is problematic, as there are only three active trade repositories in the European market, two of which dominate the market.

7.2 Targeted core proposals based on prioritised shortcomings in relation to existing data

Based on the case studies conducted and the list of NBFI-related data issues compiled, critical shortcomings have been identified and prioritised, and three targeted legislative and non-legislative proposals have been developed to address them. These have been prioritised with a focus on existing data to yield timely improvements by enhancing data access and sharing, promoting data harmonisation and laying the foundations for quality improvements. They also address critical data issues in more opaque segments of the fund sector, such as private credit and hedge funds.

[68] NACE is the European standard classification for productive economic activities.

Box 3: Core proposals to improve usability of NBFI data

The Core Proposals relate to existing data, offer timely improvements crucially needed for financial stability assessments, and should therefore be pursued as a priority:

- **Core proposal 1: Targeted legislative changes to data access and sharing provisions** of relevant EU regulations to enable timely and efficient exchange of NBFI statistical and regulatory data among central banks (including both the ECB and NCBs), EU supervisory authorities, NMAs, and NCAs. As an example, data access and sharing provisions in the AIFMD and UCITS Directive have been identified as a priority where targeted legislative changes are needed. These changes are an essential prerequisite for unlocking the full potential of the integrated reporting framework for central banks. Similar targeted adjustments may also be necessary for the MMFR, the Solvency II Directive, and MiFID/MiFIR.

- **Core proposal 2: Pursuit of a centralised data access and sharing mechanism, while maintaining direct data collection from NBFI entities at the national level.** This could be substantially more efficient than bilateral data-sharing arrangements, which tend to be complex, resource-intensive and difficult to scale. ESMA is exploring the development of a centralised data hub as part of an integrated reporting framework to enhance data harmonisation, standardisation and simplification, while improving accessibility, interoperability and usability.[69] Such a framework and centralised hub could help overcome many operational and non-legislative barriers to data access and sharing. It can also constitute the basis for improvements in data quality and harmonisation. High-quality and meaningful data are one of the priorities of ESMA's work on integrated collection of funds' data. Efforts to improve data quality and harmonisation need to address issues both within and across key datasets, such as EMIR, SFTR and AIFMD. [70] It is crucial that central banks are thoroughly considered in the design and implementation of these initiatives, with access to centralised data. Likewise, Eurosystem NCBs should share relevant statistical data on funds with regulatory and supervisory authorities.

- **Core proposal 3: Priorities to strengthen existing reporting – especially for the more opaque segments of the NBFI sector.** The first would be targeted legislative changes to mandate the use of internationally recognised identifiers in reporting (e.g. LEIs), including for mutual, hedge and private credit funds, enhancing the monitoring of financial stability risks stemming from the NBFI sector and its (international) linkages. The second would be amending ESMA guidelines on AIFMD reporting obligations to introduce a specific AIF type dedicated to private credit funds to enable more accurate identification and oversight of such funds at the entity level.

69 See also ESMA (2025a).

70 For specific data quality and harmonisation issues that need to be address see Sections 7.2.2 and 7.3.3. See also ongoing ESMA initiatives in this regard: ESMA (2025a) and ESMA (2025b), "Call for evidence on a comprehensive approach for the simplification of financial transaction reporting", Paris, September.

7.2.1 Access to, and sharing of, existing data

The Eurosystem currently collects a range of data from NBFI entities for statistical purposes, while relevant NCAs in the EU collect supervisory data from regulated NBFI entities and some data, e.g. those under EMIR and the SFTR, are collected via trade repositories. In practice, however, direct access by EU authorities and central banks to this data and arrangements for sharing it are insufficient. For example, access by Eurosystem central banks to granular regulatory data on NBFI entities is very limited in most cases. Essentially, the Eurosystem as a whole, under its monetary and financial stability mandate, does not have direct access to detailed supervisory data reported under the AIFMD, UCITS Directive, the MMFR, the Solvency II Directive, and MiFID/MiFIR. Similarly, supervisory and competent authorities do not necessarily have direct access to granular data collected by the Eurosystem for statistical purposes.

Issues related to data access and sharing are pervasive, with legal, regulatory or technical barriers often impeding efficient exchange of granular and confidential data between authorities and central banks. These include legal restrictions and inadequate data governance and IT infrastructure. One example, also illustrated by the case studies, is that data collected under the AIFMD on funds managed in other jurisdictions is not accessible to all relevant central banks and authorities for financial stability purposes. Another is the limited ability to monitor proprietary trading firms' intraday activities in equity and bond markets: while EMIR data provide insights into their derivatives trading, other asset classes remain opaque due to data-sharing restrictions. In some instances, securities markets regulators collect transaction and order data for instruments traded, but this is for the explicit objective of market abuse supervision and data cannot be repurposed for financial stability analysis. This creates a significant gap in understanding the broader trading activities of these firms. Issues are compounded by the lengthy processes for accessing European supervisory data and sharing analyses within the Eurosystem, which can delay financial stability assessments. Additionally, the lack of uniform access to European data sources within the Eurosystem complicates the sharing of analyses, even within the Eurosystem. A general shift from a "need-to-know" to a "need to share" paradigm, enabled by improvements in data governance and IT solutions, would mitigate these challenges.[71]

To enable effective data access and sharing, a combination of legislative and non-legislative measures are needed. Ideally, given the global nature of capital markets, data access and sharing mechanisms should be designed and implemented at a global level. However, even in the absence of global coordination, the EU can make significant progress itself. Enhanced data access and sharing across jurisdictions, authorities and central banks would significantly benefit financial stability analysis, given the interconnectedness of NBFI entities and activities – both across sectors and borders. Enhanced data access and sharing should include both transaction-level data and balance sheet data to ensure a holistic understanding of

[71] In principle, the medium-term target of a regulatory reform process could be to have a default criterion enshrined within the EU financial regulation, i.e. that NBFI data collected by each supervisory authority is assumed to be accessible by other EU financial regulators and supervisors, unless a motivated exclusion is put forward by the data owner (collecting authority).

financial dynamics. A more consistent framework for data access and sharing could reduce the reporting burden for entities, enhance simplification and promote the objectives of the SIU in Europe.

Non-legislative actions are key to addressing material shortcomings that regularly inhibit central banks and NMAs from fully assessing financial stability risks at national and European levels. Such shortcomings not only stem from inadequate data access and sharing but also arise, for example, from lengthy and cumbersome processes to assess the legitimacy of data requests in light of the relevant legal frameworks, and technological or other operational barriers that hamper easy and timely access to data.

To address these challenges, the creation of a centralised data access and sharing mechanism – while maintaining direct data collection from NBFI entities at the national level – would be a highly valuable initiative. ESMA is working on the development of a centralised data hub designed to enhance data harmonisation, standardisation and simplification, while also improving accessibility, interoperability and usability.[72] Such a hub could streamline data-sharing processes and enable national and EU authorities, including central banks, to access and use the same data in a unified manner, without duplicating them. A centralised data hub could reduce the reporting burden for the industry. Additionally, it could substantially lower the administrative burden for authorities and central banks compared to sharing data bilaterally, which tends to be complex, resource-intensive, and difficult to scale. By addressing many of the operational and non-legislative barriers to data access and sharing, this initiative has the potential to significantly improve the efficiency and effectiveness of financial stability assessments. It is therefore essential that central banks participate and are thoroughly considered in the design and implementation of such an initiative.

However, one critical limitation would remain: central banks can only participate in the planned integrated reporting framework if ESCB members are granted access in the relevant EU legislation, which, for instance, currently restricts direct access to fund data to European bodies and national supervisors.[73] Targeted legislative changes are therefore an essential prerequisite to unlocking the full potential of the integrated reporting framework for central banks.

With respect to legislative action, provisions should be incorporated into the relevant EU regulations to enable access to, and the timely and efficient sharing of, NBFI statistical and regulatory data among central banks (both the ECB and NCBs), EU supervisory authorities, NMAs and NCAs. This data sharing must align with, and remain within the boundaries of, these institutions' respective mandates. At the same time, legal constraints that restrict data access and use should be reduced, particularly in matters related to financial stability. Additionally, amendments to confidentiality rules, in particular with regard to both the SFTR and

72 See ESMA (2025a) and ESMA (2025b).

73 See for example the AIFMD.

EMIR, should be considered, to enable sharing of non-anonymised data between authorities and publication of aggregated analyses.

The data access provisions in the AIFMD and UCITS Directive have been identified as specific areas where targeted legislative changes are crucial to enable improved data access and sharing. The changes are needed to better utilise existing data without imposing additional reporting burdens on market participants and to facilitate central banks' cross-border access to granular data on investment funds, in accordance with their mandates. [74] There are established precedents for granting the ESCB access to granular supervisory data. For instance, pursuant to EMIR and the SFTR, all Eurosystem members have uniform access to Eurosystem-wide data for derivatives and securities financing transactions. Given the potential challenges in data quality and data gaps identified in third-party datasets, improved sharing of data across the ESCB represents a low-cost, high-impact solution for addressing existing shortcomings.[75]

Similar targeted adjustments may be needed for the data access and sharing provisions of other relevant regulations that present comparable challenges, in particular the MMFR, Solvency II and MiFID/MiFIR.

7.2.2 Harmonisation of existing data, with a particular focus on more opaque sectors

Improving data standardisation and harmonisation across and within key datasets, with a particular focus on EMIR, SFTR, and AIFMD data, is another important priority. ESMA is already undertaking several important activities, including a consultation on integrated collection of funds' data.[76] It has also launched a call for evidence on a comprehensive approach to the simplification of financial transaction reporting.[77] With regard to further harmonisation, the issues outlined in this section remain a priority.

One critical harmonisation issue is the lack of standardised identifiers across datasets. Currently, funds are identified using LEIs (Legal Entity Identifiers) in EMIR and SFTR reporting. However, a single LEI often represents an asset manager that may oversee multiple funds. As a result, one LEI can be associated with several ISINs (International Securities Identification Numbers) corresponding to different funds. Additionally, missing LEI codes in AIFMD data make comprehensive analysis difficult.

The case studies on hedge funds and private credit funds (see sub-annex 1) underscore the importance of international identifiers, especially for studying financial stability related risks arising from the non-bank sector with its

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74 This can be implemented through very targeted changes to Article 25(2) AIFMD and Article 20a(3) UCITS Directive, by adding reference to "members of the ESCB" and clarifying that sharing of relevant data can also for purposes beyond statistical.

75 Also see Opinion of the European Central Bank of 9 August 2022.

76 See ESMA (2025a).

77 See ESMA (2025b).

international linkages. Consequently, targeted legislative changes mandating the use of internationally recognised identifiers should be considered. For instance, it would be beneficial to mandate reporting at the entity level, using ISINs alongside a unique LEI that maps to a single fund, rather than reporting at the asset manager level in these databases. A complete replacement of LEI reporting by ISINs is not feasible, as some relevant entities (such as some hedge funds or closed-end funds) may only have an LEI, not an ISIN. Reporting both would improve clarity and ensure that each fund is uniquely and consistently identified. This is in line with the data standardisation and harmonisation objectives of the European Commission's strategy on supervisory data in EU financial services. ESMA has also suggested mandatory use of LEIs and ISINs to increase harmonisation. However, the latest progress report on the European Commission's strategy for supervisory data indicates that, at present, there is no case for legislative action to make LEIs mandatory.[78] The compulsory use of internationally recognised identifiers, such as ISINs or Committee on Uniform Security Identification Procedures numbers (CUSIPs) for securities reporting and LEIs for institutions and interlinkages (where applicable), could significantly expand the analytical horizon without imposing substantial changes to reporting requirements or imposing additional burdens on the industry. This is particularly relevant for the loan origination component of private credit portfolios, where positions often lack standardised identification criteria (e.g. ISINs or LEIs). Reporting LEIs for each position would address this gap, enabling a more accurate assessment of total borrowing by individual entities.

Further challenges remain regarding the identification and monitoring of hedge funds and private credit funds within the broader NBFI sector. For hedge funds, adopting standardised and internationally recognised definitions or classifications—such as a unified definition of hedge funds and their strategies—would enhance the quality and consistency of reporting, ultimately supporting more robust analysis and decision-making. In the case of private credit funds, identification is difficult because current ESMA Guidelines[79] do not define a specific "private credit" AIF category at the entity level. At the activity level, mixed or other funds not classified as "private credit" may also engage in private credit intermediation as part of their portfolios. Consequently, it is proposed that ESMA amend its guidelines on AIFMD reporting obligations[80] to introduce a specific AIF type dedicated to private credit funds. This would allow for more accurate classification and oversight of such funds at the entity level. At the activity level, portfolio reporting requirements should be expanded to include more granular asset type classifications. As these improvements go beyond the scope of existing data, they are addressed in the next section.

78 See European Commission (2021), "Strategy on supervisory data in EU financial services", Brussels, December, and European Commission (2024), "Progress report on the strategy on supervisory data in EU financial services", Brussels, February.

79 See ESMA Guideline ESMA/2014/869EN.

80 See ESMA Guideline ESMA/2014/869EN.

7.2.3 Quality of existing data

Persistent data quality issues continue to pose significant challenges for the effective monitoring of the NBFI sector, particularly in relation to key datasets such as EMIR, the SFTR and the AIFMD. These challenges are evident in several forms, including the presence of implausible or extreme values, incomplete or poorly populated fields, and inconsistencies both within individual datasets and with other statistical and supervisory reports collected by authorities.

One recurring concern is the reporting of implausible values. Such errors can distort aggregate analyses and lead to incorrect conclusions about market activity. This issue is particularly pronounced in EMIR and SFTR data, as well as the Centralised Securities Database (CSDB), where outstanding amounts can fluctuate sharply and inexplicably and ISINs show inconsistencies from one period to the next. Information that is expected to be very stable over time (e.g. domicile or sector of issuer, or instrument class) can change unexpectedly for a number of securities. Some fields show contradictory information (e.g. sector versus primary asset class, or instrument class shown as investment fund share for an issuer that is not an investment fund). Another example is that, for haircut data in SFTR, completely different magnitudes are reported.

The prevalence of incomplete or poorly populated fields can further limit the analytical value of the datasets. For instance, in EMIR data, key fields related to underlying instruments (such as underlying_id and product_id) are frequently missing or incomplete. Likewise, fields concerning the rate paid on a contract can be expressed using various units of measurement, constraining the ability to accurately assess derivative exposures. Inconsistent reporting of notional values and other critical variables is also common, particularly among NBFI entities, which tend to submit less comprehensive and lower-quality data (e.g. valuations of contracts and margins exchanged are not updated) compared to bank or dealer counterparties. These issues raise concerns about potential underreporting or data gaps, further undermining the reliability and utility of the data for monitoring market activity. Similarly, AIFMD reporting can be poor in quality for indicators of synthetic leverage, sources of leverage and interconnectedness, and in many instances data points are not fully reported.

Inconsistent reporting practices further complicate matters. For instance, in EMIR data, multiple counterparties to a transaction are required to report. However, these counterparties can report different trade IDs for the same derivative transaction in numerous instances, even though a single trade ID is intended. This inconsistency makes it difficult to de-duplicate records and accurately aggregate data, leading to potential double-counting or undercounting of transactions. Additionally, EMIR data are often affected by discrepancies in the reporting of margins, collateral and clearing information. This can result in the same transaction being reported multiple times, with variations in values across counterparties. Such inconsistencies are more common in submissions from NBFI entities. In the context of central clearing, the use of incorrect CCP identifiers by NBFI entities can make it difficult to accurately determine where clearing occurs. Similar challenges are

observed in SFTR data, where missing data entries and many inconsistencies between the two legs of transactions reported by the respective counterparties complicate the processes of de-duplication and aggregation. Additionally, establishing a consistent level of granularity across key datasets, for instance in the reporting of fund strategies, investor types, leverage and other key metrics would enable more effective comparison and integration of data. Similarly, greater and more consistent granularity is needed for EMIR data, where some of the underlying exposures are reported only as baskets of securities rather than at the ISIN level, which is needed for financial stability analyses.

These data quality challenges are compounded by procedural inefficiencies in resolving data quality issues. The procedures for addressing anomalies in reported data are often cumbersome and inefficient. For example, in some cases involving EMIR and SFTR data, anomalies identified by NCBs are reported to the ECB, which then contacts ESMA, which in turn liaises with national supervisors to address the issue with the reporting entity. This multi-layered process is time-consuming and reduces the effectiveness of anomaly resolution. Moreover, the lack of metadata explaining unresolved anomalies can further complicate interpretation of the data.

To address these issues, efforts must focus on enhancing data quality across and within key datasets – and such efforts would be supported by the development of a centralised database. Additionally, a more consistent level of granularity across key datasets should be established. ESMA should collaborate with the other ESAs, the NCAs and reporting entities on further improving reporting standards and data validation. This includes developing and enhancing comprehensive handbooks that consolidate best practices, methodologies and processes to support consistent and effective reporting. It also aligns with the European Commission's strategy on supervisory data in EU financial services,[81] which notes the importance of internal guidelines in enhancing reporting standards and empowering ESAs. ESMA has already made progress toward this objective, as highlighted in the 2024 progress report.[82] Further important work is currently ongoing, including ESMA's consultation on the integrated collection of funds' data and its call for evidence on a comprehensive approach to simplifying financial transaction reporting.[83] These initiatives are welcomed and should also consider the issues identified in this section. Beyond benefits in relation to data sharing, a centralised hub could help substantially improve data quality and harmonisation.

7.3 More far-reaching proposals to address data gaps as part of a medium to long-term strategy

The case studies and the compilation of NBFI-related data issues faced by authorities have identified broader challenges in relation to persistent data

81 See European Commission (2021) and (2024).

82 See European Commission (2024).

83 See ESMA (2025a) and ESMA (2025b).

gaps. These act as an important barrier to strengthening the macroprudential lens in surveillance of the NBFI sector. They are outlined in more detail in the remainder of this Annex.

An overarching medium to long-term strategy on NBFI data needs to be developed and delivered, building on the work already conducted, including the proposals discussed in this section. An NBFI data strategy should identify competing needs for enhanced data and prioritise them based on a framework that targets the most systemic risks, while being proportionate to stakeholders' costs. It should consolidate new data needs and prioritise them based on (i) insights from enhanced risk assessment, and (ii) requirements from policy measures, including a better understanding of their impact (effectiveness, efficiency). The remainder of this section sets out areas that have been identified as gaps and could inform – and form part of – the development of a future comprehensive NBFI data strategy.

7.3.1 Monitoring interconnectedness-related risks

As illustrated by the case studies (see sub-annex 1 for further details), monitoring risks related to interconnectedness is constrained by the inherent complexity and opacity of the multi-layered structures of NBFI entities. To enhance the assessment of indirect exposures stemming from the use of complex financial structures, ESMA could evaluate the feasibility of implementing a look-through approach for data and indicators. This would enable consideration of indirect geographical and sectoral portfolio exposures of AIFs at an aggregate level, as reported by asset managers. Such an assessment is particularly relevant in the case of private credit and, more broadly, private capital, where multi-layered investment structures are prevalent. In these cases, it is essential to complement the reporting of direct portfolio exposures with aggregated information on indirect portfolio exposures to ensure a more comprehensive understanding of the underlying risks. Such improvements are relevant both at EU and jurisdiction levels and would require amending existing AIFMD reporting obligations to better calibrate them to the specific features of private credit funds.

More effective monitoring would also require changes to the scope of reporting, as granularity at the required level for risk assessment is often lacking – especially in more opaque sectors. Within the ongoing revisions of technical standards related to the Alternative Investment Fund Manager (AIFM) Review, ESMA could consider expanding reporting obligations for AIFs to achieve greater granularity. In the case of private credit funds, for instance, portfolio data should be available at the individual position or loan level or, at a minimum, borrower level.[84] More detailed asset type classifications should be introduced, including various forms of lending, such as co-lending, syndicated loans, trade finance and leasing, to better identify and monitor private credit intermediation at the activity

[84] For AIFMD reporting the proposal would be in line with recital 26 of Directive (EU) 2024/927, i.e. "[…] If ESMA determines that a full portfolio disclosure to supervisors on a periodic basis is warranted, the provisions of Directive 2011/61/EU should accommodate the necessary broadening of the reporting scope".

level.[85] Additionally, distinguishing between performing and non-performing loans as separate data attributes would enhance reporting accuracy.

In general, enhanced reporting should be considered in situations where financial stability risks are present. For example, expanding AIFMD reporting to cover all markets, rather than limiting it to "principal markets" could provide more comprehensive insights into exposures. AIFMD reporting also covers beneficial owners, however this only provides a breakdown of the proportion of professional or retail borrowers, making it difficult to aggregate each owner across the whole sample or cohort. Investor groups are reported in AIFMD return reporting. However, this information is reported only at an aggregate level, which does not allow comprehensive analyses relying on granular data. Similarly, ECB Regulation 2024/1988[86] mandates collection of statistical data at a higher frequency (monthly), which could serve as a model for supervisory data reporting.[87] This approach is already being explored by ESMA in its consultation on the integrated collection of funds' data.[88]

7.3.2 Monitoring leverage-related risks

Effective monitoring of leverage-related risk is constrained by significant data gaps, including (i) the reporting of indirect leverage, (ii) the estimation of synthetic leverage, and (iii) the absence of standardised criteria or centralised analytical datasets on private credit loans issued by funds that exceed specific thresholds. For further details also refer to the case studies described in sub-annex 1.

With respect to indirect leverage, there would be merit in reassessing the adequacy of Article 6.3 of the EU Regulation 231/2013, particularly regarding the definition of exposures in private credit and, more broadly, private capital.[89] Currently, only "third parties controlled by the relevant AIF shall be included in the calculation of the exposure, where the structures referred to are specifically set up to directly or indirectly increase the exposure at the level of the AIF". This rule provides an exception for AIFs whose core investment policy is to acquire control of non-listed companies or issuers, such as leveraged buyouts, where indirect exposure is not computed in the calculation of leverage. Indirect leverage occurs, for example, when a fund gains exposure to leveraged assets or vehicles – such as other funds, structured products, derivatives, or SPVs – which themselves use borrowing or leverage strategies, even if the original fund does not borrow money or use leverage directly.

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85 Currently, AIFMD reporting only defines leveraged loans and other loans as categories.

86 Regulation (EU) 2024/1988 of the European Central Bank of 27 June 2024 concerning statistics on investment funds and repealing Decision (EU) 2015/32 (ECB/2014/62) (ECB/2024/17) (OJ L, 23.7.2024, p. 1).

87 See Regulation (EU) 2024/1988.

88 See ESMA (2025a).

89 See Commission Delegated Regulation (EU) No 231/2013.

The European Commission and ESMA could consider integrating additional reporting requirements to better capture all forms of indirect leverage. Specifically, a metric that asset managers should report to reflect the ultimate effects of multi-layered sources of leverage could be introduced. For instance, a fund could report indirect leverage as the weighted average of the leverage levels of each vehicle in which it is invested. This approach would result in the reporting of two distinct metrics: (i) leverage at the fund level and (ii) indirect leverage. Both direct fund-level and indirect leverage can amplify exposures and magnify profits and losses in a similar way and are thus relevant from a financial stability perspective. While fund-level leverage is primarily relevant for micro-supervision and ensuring compliance with existing product regulations, the combination of these two metrics is key for assessing the financial stability risks associated with private credit and private capital more broadly. Another source that could be utilised in this context to the extent possible, is data from banks on lending to individual private credit funds.

With respect to synthetic leverage, establishing a consistent and standardised measure would be highly beneficial. Synthetic leverage is built up using derivatives that create exposures whose value depends on the value of an underlying asset. Similar to financial leverage, synthetic leverage can build up vulnerabilities that amplify risks and lead to systemic disruption through the liquidation channel as well as the counterparty channel. This makes monitoring and responsible management of synthetic leverage essential to safeguard financial stability. Adopting an agreed metric for the commitment approach (one that incorporates both hedging and netting) could serve as an effective way to report synthetic leverage consistently across datasets. Currently, for instance, the commitment method requested by the AIFMD is different from that required for calculating the global exposure by the UCITS Directive. Furthermore, the commitment method is not mandatory for all UCITS using derivatives, as an alternative method, i.e. the value at risk approach, is also available for them. While this may be beneficial and align with strategies of the UCITS themselves, it hinders comparison with hedge fund leverage (especially synthetic leverage).

Mandatory reporting of leverage calculated using gross and net methods should be considered for UCITS and AIFs to evaluate risks arising from synthetic leverage. Further, it is important regulatory/supervisory bodies collect such data regularly to evaluate financial stability risks, especially the range of values observed over the year. Collateral used and sources of borrowing that can be compared to external datasets are challenging to estimate. Even after combining relevant datasets, such as EMIR, the SFTR, and the AIFMD, the data often remain incomplete. For UCITS employing the value at risk (VaR) approach, collection of data on commitment leverage should therefore be considered. UCITS funds using absolute VaR can reach leverage levels which are substantial according to AIFMD definitions, and hence they should be required to report leverage to NCAs based on the commitment approach.

Additionally, the reporting of leverage, including synthetic leverage, could extend beyond first-counterparty disclosures and include information on ultimate beneficiaries, investors and borrowing sources to further break down

the layers of leverage and identify concentration risks and contagion channels. This broader scope of reporting is essential for assessing risks to financial stability more comprehensively. Achieving this level of transparency may necessitate increased disclosures between private entities and a more robust use of third-party datasets by regulatory bodies.

Lastly, the introduction of standardised criteria or centralised analytical datasets (similar to the AnaCredit framework for banks) should be considered for reporting information on loans issued by private credit funds that exceed specific thresholds (e.g. EUR 25,000, as applied to banks).[90]Given the continued growth of private credit, the feasibility of such a reporting obligation should be assessed with careful consideration to the principles of materiality and proportionality. This assessment should also aim to leverage existing financial reporting initiatives at the EU level to the greatest extent possible.

7.3.3 Monitoring liquidity mismatch-related risks

Excessive exposure to liquidity risk is one of the key vulnerabilities for NBFIs. Liquidity risks can emerge when the liquidity of a fund's assets is not aligned with the redemption terms offered to its investors. Challenges in raising sufficient liquidity to meet these obligations can lead to fire sales, potentially causing destabilising effects on financial stability. Consideration should be given to enhancing data on redemption terms (especially given the prevalence of open-ended funds in the euro area) as well as on investor types, and valuation approaches and methods.

7.3.4 Additional procedural improvements

Besides specific data gaps, additional procedural improvements should also be part of any medium to longer-term strategy. For instance, measures to streamline output control processes should also be explored. These apply to data outputs such as statistics, graphs and figures or other analytical results and aim to ensure the confidentiality of reporting entities. Output control processes typically rely on approval and access protocols. However, these procedures are currently often complex and sometimes overly restrictive. Enhancing the harmonisation of access rights across Eurosystem institutions could facilitate more efficient output control processes.

In addition, legal restrictions on sharing and publishing aggregated data should be reviewed. This is especially important for SFTR data, where current legal interpretations regarding the sharing of data aggregated from fewer than three entities constitute a material issue. This is exacerbated by the fact that only three trade repositories operate in the European market, two of which hold a dominant position.

[90] Such a database could be similar to AnaCredit in the case of banks, where the threshold is €25,000.

Sub-Annex – Case studies illustrating NBFI data challenges

Case study 1: Cross-border cross-fund exposures

Objective and economic motivation: To understand financial stability vulnerabilities from cross-border, cross-fund exposures and illustrate how barriers to data sharing across authorities can hinder risk assessment.

Existing data: The primary source of harmonised data on mutual funds' investments are the ECB's Investment Fund Statistics, Securities Holding Statistics (SHS), and Centralised Securities Database (CSDB), as well as data reported under the AIFM and UCITS Directives. These data suggest that cross-fund holdings have increased substantially in multiple jurisdictions in recent years. In the euro area, cross-border cross-fund holdings are substantial and have recently been increasing at a faster pace than domestic cross-fund holdings. Direct fund-to-fund connections have the potential to amplify structural vulnerabilities in the fund sector and serve as a means to transmit losses among funds through a network of direct fund-to-fund linkages. Cross-fund holdings significantly increase both correlation and pro-cyclicality in fund returns, fund flows, and the overall level of portfolio overlap in the fund sector, and can contribute substantially to fund sector vulnerabilities.[91]

Main data challenges

- **Data sharing:** accurate assessments of these risks necessitate granular, timely data on individual funds' balance sheets, which are typically available only at the national level to the NCAs or NCB of the same jurisdiction. Without access to granular fund-level data for funds domiciled in other jurisdictions, NCBs are unable to fully assess financial stability in their own. Equally, this prevents the Eurosystem as a whole from comprehensively assessing financial stability risks in the euro area. The main data challenge relate to limitations in sharing data across borders and between central banks and supervisors. Sharing existing country-specific data reported under the AIFM and UCITS Directives, both across borders and between supervisors and the members of the ESCB, would help improve cross-border risk analysis. Under the current version of the AIFMD framework, funds are already required to report granular top holdings in non-domestic investment funds; in future, more comprehensive information on funds' granular portfolio holdings might be provided, subject to the ongoing AIFMD and UCITS Directive review by ESMA.

[91] See Fricke, D. and Wilke, H. (2023).

Case study 2: Hedge funds

Objective and economic motivation: to understand financial stability vulnerabilities from hedge funds, including increasing hedge fund participation in European sovereign debt markets (EGBs).

Existing data: a number of datasets have been used as part of this case study. These include data gathered through:

- the Money Market and Investment Fund Return (MMIF): the main dataset employed to identify direct exposures to EGBs;
- the European Market Infrastructure Regulation (EMIR): derivative information reported on a daily basis is used to identify indirect EGB exposures, calculate leverage, identify basis trades and obtain information on prime brokers;
- the Securities Financing Transaction Regulation (SFTR):[92] information reported on securities lending arrangements and exposures to EGBs;
- the Alternative Investment Fund Manager Return (AIFM Return): AIF hedge fund strategies, sub-strategies, information on leverage, liquidity, borrowing sources, investors and prime brokers;
- the ECB Centralised Securities Database (CSDB): includes securities issuer information, total issuance and other data points;
- the ECB SHSS database: includes sector and country details of holders of securities;
- other national data collected by the Central Bank of Ireland.

Main data challenges

- **Data quality:** data quality varies across and within datasets, for example with regard to collateral and securities. Issues include inconsistent use of ISIN reporting for securities/underlying collateral in SFTR dataset. Furthermore, in EMIR, some of the underlying exposures are reported as baskets of securities rather than at the ISIN level, which is needed for meaningful analysis. There are also issues observed with the reporting of collateral market values, where valuation figures are not updated to reflect changes in market valuations and maturity dates (particularly in the SFTR dataset). In terms of vulnerability metrics such as leverage and liquidity, quality is particularly poor for measures of synthetic leverage. There are also inconsistencies in reporting investment strategies between different datasets (for instance, national data and AIFMD), creating challenges in categorising activities of hedge funds.
- **Data usability:** data often lack the frequency and granularity needed for robust risk analysis. For example, the MMIF dataset is only reported quarterly and

[92] Regulation (EU) 2024/1988 of the European Central Bank of 27 June 2024 concerning statistics on investment funds and repealing Decision (EU) 2015/32 (ECB/2014/62) (ECB/2024/17) (OJ L, 23.7.2024, p. 1).

cannot capture higher frequency dynamics. Other sources like EMIR also suffer from incomplete reporting. Key details such as borrowing sources and beneficial ownership are often aggregated or lack standard identifiers, making it difficult to merge datasets.

- **Data gaps:** significant data gaps remain in the reported datasets, and there are also inconsistencies across these datasets. For example, the commitment method requested in the AIFM Directive is different from that required for calculating the global exposure in the UCITS Directive. Furthermore, the commitment method is not collected for all UCITS using derivatives, as an alternative method (value at risk) is also available. While this may be beneficial and align with the strategies of the UCITS themselves, it hinders comparison of hedge fund leverage (especially synthetic leverage). Collateral used and sources of borrowing (which can be compared to external datasets) are challenging to estimate. Even after combining MMIF, EMIR and SFTR datasets (and AIFMD, where data are reported), the data often remains incomplete. Average daily traded volume and market exposures remain challenging to estimate based on existing data sources. Prime broker information and concentration of holdings data are both examples of incomplete reporting. While this can be derived from EMIR, SFTR and AIFMD, the data often remain incomplete. Even where data are available, key details such as LEI codes (in AIFMD) are missing, making it difficult to do comprehensive/complete analysis.

- **Data sharing:** hedge fund activities are global in nature, and activity in a given sovereign debt market is not necessarily carried out through entities domiciled in that jurisdiction. Currently, the AIFMD only notes the sharing of data with central banks for statistical purposes, which often requires reliance on third-party datasets. This case study reveals gaps in third-party datasets, supporting the case for increasing access to existing datasets within the Eurosystem. Due to the strong interlinkages between the EU fund sector and US, UK and Cayman Island funds, where EU funds can act as feeder funds to master funds located in those jurisdictions, any analysis done at EU level will still leave gaps in the absence of any international data-sharing arrangements.

Case study 3: Private credit funds

Objective and economic motivation: to understand financial stability vulnerabilities from private credit funds and identify the data limitations to risk assessment in this growing but more opaque asset class.

Existing data: the primary source of harmonised data on private credit AIFs is the AIFMD reporting framework. This provides data on several aspects of AIFs, including private credit funds. The data collected cover key areas such as investment strategies, investor concentration, instruments held, aggregated exposures, market risks, leverage levels, and investor and portfolio liquidity profiles. Harmonised data are generally available at the aggregate level, providing insights into asset typology, geographical focus, and concentration of large exposures. However, at the granular level, only the top five instruments in which the AIF is trading are reported. Member

States' competent authorities may also have access to additional data through local reporting arrangements.

Main data challenges

- **Identification of private credit funds:** the identification of private credit funds is constrained by existing categorisations at both the entity and activity levels. At the entity level, there is no specific category for private credit funds, which instead are typically included in a residual category. At the activity level, identifying private credit activities within mixed or other funds is challenging. Current reporting allows portfolio analysis only at an aggregate level, with loan exposures categorised as either leveraged loans or other loans, in the latter case offering limited granularity, e.g. regarding loan type (co-lending, syndicated loans, trade financing, leasing, etc.) or credit quality (e.g. performing vs non-performing).

- **Data gaps:** harmonised data do not enable a detailed investigation of entire portfolios at the single position level. This limitation is compounded by the absence of standard identifiers, such as ISINs or LEIs, for many private credit fund instruments, making it difficult to analyse the characteristics of underlying financial instruments or borrowers, and the actual amount of leverage that single borrowers obtain from multiple lenders. For instance, a large proportion of loan positions (e.g. other loans) lack ISINs or other identifiers, and most asset-backed security (ABS) holdings also lack such identifiers. Even when ISINs are available, relevant authorities may not have full access to detailed information. This limitation hampers the ability to assess financial stability risks within an intrinsically cross-border and cross-sector market, e.g. related to concentration risks, or interconnectedness. Another significant limitation in the current reporting framework is its inability to capture indirect exposures. Reporting is generally restricted to the first layer of investments, with no requirement for a look-through approach. This poses challenges in assessing risks from multi-layered investment structures, such as stakes in multiple layers of funds or SPVs. In particular, measurement of indirect leverage is constrained by the narrow legal definition of exposure, which excludes certain types of indirect leverage, such as those linked to leveraged buyouts. The lack of comprehensive reporting on leverage, especially in private credit, prevents supervisors from effectively monitoring risks at the macro level.[93]

- **Data sharing:** private credit is an inherently cross-border market. Based on the AIFMD, data are reported to NCAs, and this information is made available to the ESCB for statistical purposes only. This is not sufficient to assess financial stability risks if it limits the ability to analyse funds' exposures, risks and interconnections with other financial entities.

[93] IMF (2024),"Global Financial Stability Report, Chapter 2, The rise and risks of private credit," Washington, DC, April.

8 Annex 4: Governance

An effective governance framework is an important building block for strengthening the macroprudential perspective in the regulation of NBFI. It is crucial that cooperation between European NMAs and NCAs is strengthened to reflect the significant cross-border footprint of NBFI entities. The framework should ideally rest on a set of common rules and standards across the EU, accompanied by coordinated supervisory action at EU level. Enhanced coordination and additional supervisory powers for ESMA, in close collaboration with the ESRB, would help to ensure consistent treatment of risks to financial stability at EU level, promote a level playing field within the EU and reduce the potential for regulatory fragmentation or arbitrage.

Two elements should be prioritised in the context of the macroprudential framework for NBFI instruments such as article 25 AIFMD or other similar EU-level instruments that may be introduced in the future: (i) reciprocation, (ii) “top-up” powers. This should be based on:

- simplicity of design and an approach that can fit with the broader aims of the simplification agenda;
- the nature and distribution of the asset management industry in the EU;
- striking an appropriate balance between national and EU-level responsibilities;
- recent experiences from implementing macroprudential powers for funds under Article 25 AIFMD;
- relevant lessons from the macroprudential banking framework.

8.1 Specificities of the fund sector compared to the banking sector of relevance for governance

Compared to the banking sector, the fund sector is more internationally interconnected, with asset managers often managing funds in other countries and portfolio assets and investor bases widely dispersed across borders. Coordination between different authorities is key, however due to the characteristics of funds sector, this is often challenging. In particular, challenges relate to:

- **Business models:** investment funds perform very different economic functions to banks in the financial system, and these differences extend to the way each contributes to systemic risk. The fund sector is diverse and includes a range of entities with a variety of business models and investment strategies. Individual funds are also generally much smaller in terms of assets under management (AuM) than banks, making it more difficult to strike the right balance between administrative burden and recognition of national measures with appropriate

proportionality. Following a cohort-based approach, as outlined in the Eurosystem response to the Commission consultation, better captures the systemic relevance of the funds sector.[94]

- **Location of funds vs location of fund manager:**[95] investment strategies or activities of funds raising systemic considerations for an NCA/NMA may not be domiciled in the same jurisdiction as the fund manager, while banking exposures raising concerns for a NCA are more likely to be originated by local/domestic banks.[96] Additionally, the assets of the fund(s) in question may be connected to jurisdictions other than where the fund(s) or fund manager(s) is/are domiciled. As such, safeguards should be carefully framed to ensure NCAs/NMAs are well incentivised to take actions when (i) the fund and the fund manager are not located in the same Member State and have two different supervisory authorities, and (ii) the fund is investing in assets not located in its home jurisdiction but that still could pose a financial stability risk.

8.2 Proposal for reciprocation and top-up powers

8.2.1 Reciprocation[97]

The reciprocation framework should be primarily voluntary, with (i) a clear mechanism inserted into the relevant legislation that would allow NCAs/NMAs enacting macroprudential measures to request reciprocation of such measures, and (ii) an obligation for other NCAs/NMAs to consider such requests within a "comply or explain" process. Requests can be for specific NCA/NMAs to reciprocate or all to do so. Voluntary reciprocation is favoured because (i) it offers more flexibility to take into account national specificities (including the potential unavailability of the same policy tool in the jurisdictions that are requested to reciprocate) and strikes the right balance between the benefits of reciprocity and the costs of its implementation, and (ii) it is consistent with the precedent set (mostly) in the banking sector.

However, voluntary reciprocation on its own might not be sufficient to ensure consistent treatment of the risks to EU financial stability, promote a level playing field and prevent cross-border regulatory arbitrage. It is important that there be an EU-level power to complement powers at the national level. It is

94 In this context, cohorts of funds are funds that exhibit similar systemic risk characteristics based on having similar investment strategies, even if these funds are across multiple asset management companies.

95 It is important to note a key difference between the UCITS Directive and the AIFMD; the former is based on the location of the fund, whereas the latter is based on the location of the asset manager.

96 Most of the world's biggest asset managers are based in the USA. Only two of the world's 20 biggest asset managers are based in the EU. See European Court of Auditors (2022), "Special report: Investment Funds - EU actions have not yet created a true single market benefiting investors", Publications Office of the European Union, Luxembourg.

97 In this context, reciprocation is taken to mean the replication, under specific circumstances, of macroprudential measures adopted in one or multiple Member State(s) in other Member States.

proposed that ESMA, in close collaboration with the ESRB, should be granted sufficient powers to address EU-wide risks and overcome inaction bias, because:

I. ESMA as an institution has experience with exercising powers directly, e.g. when it comes to product intervention powers;

II. ESMA staff and members have deep expertise in the asset management sector specifically;

III. ESMA has a financial stability mandate.

These powers could be employed first to issue an opinion/guidance on whether reciprocation should be granted and then, if a positive ESMA opinion or guidance does not result in reciprocation in the relevant Member States, through the possibility to enact a temporary, EU-wide measure enforcing reciprocation of the measure in a time-limited fashion. In consideration of the relevance of this temporary enforcement, the relevant national and European authorities, including NMAs, should be appropriately involved in the governance and related decision-making process promote the proper functioning of the framework.

As a precursor to adopting EU-wide measures, ESMA may request reciprocation of national measures in other Member States. This could occur in two non-mutually exclusive scenarios: (i) the NCA/NMA that initiated the measure may not have requested reciprocation at the time; and/or (ii) the circumstances since the measure was initiated mean that it now makes sense for other Member States to reciprocate, whereas it did not at the time of initiation.

ESMA (or the ESRB) should publish a database of all fund-related macroprudential measures, as well as the reciprocation status of each, on an ex post basis, as the ESRB currently does for banks.[98] This would be transparent and potentially also serve as an informal way of promoting more reciprocation across Member States, as it would be public knowledge which have not reciprocated.[99]

8.2.2 Decision-making process

Ultimately, the institutional arrangements and the specifics of the decision-making process will be decided by the co-legislators. However, under this proposal, ESMA, for the reasons outlined above, would be assigned the powers to ensure a strong EU-level role in coordinating reciprocation requests. Enhanced coordination and additional macroprudential powers for ESMA would help ensure consistent treatment of risks, promote a level playing field within the EU and reduce the potential for regulatory fragmentation or arbitrage.

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98 For an overview of macroprudential measures actively recommended by the ESRB for reciprocation, see their website.

99 It also could lead to long delays in introducing measures to deal with emerging risks and hence be less effective.

If an NCA/NMA determines there is a need for reciprocation of a measure enacted in their home jurisdiction, it would submit the request to ESMA with the accompanying rationale. ESMA would then share the requests with their membership and consult with the ESRB with a view to facilitating the consideration of reciprocation requests by other NCAs/NMAs. As part of this, ESMA should issue guidance on whether reciprocation should be granted. NCAs/NMAs should then be subject to a "comply or explain" process.

8.2.3 Representation in ESMA process

NMAs tend to be located in central banks and/or prudential regulators, and as such may not be represented in ESMA. Since macroprudential powers under Article 25 AIFMD may be granted to market authorities who are not also NMAs, it is important that these specific NMAs are involved in the ESMA reciprocation process to ensure it integrates a broad macroprudential perspective.[100] This could be achieved in two ways:

I. directly, i.e. those NMAs and central banks not represented in ESMA should take part in the ESMA process on reciprocation via, for example, a new ESMA committee using existing arrangements as a potential guide; or, as a second option,

II. indirectly, i.e. via the ESRB, given that it is a non-voting member of the ESMA Board of Supervisors (BoS), and the main forum for bringing together the relevant authorities for discussions specifically on macroprudential policy issues, albeit largely in a banking context for most of its existence.

8.2.4 Conditions for activating reciprocation requests

The NCA/NMA proposing the measures would request that the same measures under the same parameters be reciprocated by the NCAs/NMAs in the other Member State(s) where the exposures/activities are relevant.[101] For instance, where the exposures/activities in the other Member State(s) exceed the defined materiality threshold, asset class focus, limits, etc. a request would be issued for the same measure to be reciprocated in the other Member State(s).

Proportionality is important and, rather than defining a standard materiality threshold for all potential measures ex ante, a consistent approach would be agreed in each instance of a measure being proposed by the proposing NCA/NMA, the requested NCAs/NMAs and ESMA. By way of example, for the property fund measures as announced in Ireland, reciprocation would involve applying the same macroprudential leverage and liquidity timeframe guidance to exposures to Irish commercial real estate (CRE) where such exposures constitute more than 50% of a fund's assets. In this instance, reciprocation would not involve

[100] This would also apply to top-up powers.

[101] This includes investment in assets located in the requesting countries by funds established in the reciprocating country.

the application of the leverage limit or liquidity timeframe guidance to any non-Irish CRE exposures in funds.

8.2.5 Data requirements

Proposing NCAs/NMAs should present a clear, data-driven basis for any reciprocation requests. Furthermore, a comprehensive explanation should be provided to clarify why implementing the proposed macroprudential measures for NCAs/NMAs of other Member States is considered relevant for maintaining financial stability in the proposing Member State or the EU as a whole. Precise details of such proposals will vary from request to request, but some outline of known similarities (e.g. the investment strategies that the measure aims to target) between the funds being subject to the macroprudential measures in the proposing Member State and fund cohorts in other Member States should be included, as well as a high-level description of potential means of circumventing the measures (e.g. through cross-border relocation of activities of funds to other funds managed by the same asset manager).

Currently, the NCA/NMA and the relevant NCB (which will likely have a role in providing quantitative evidence in an NMA that is set up as a Council/Committee), pursuant to national law in the proposing Member State, will likely not have sufficient data to establish clearly that similar material cohorts exist in other Member States.[102] This unsatisfactory situation should be rectified in future by the options below, which are discussed in Annex 3:

- setting up a new framework for integrated reporting, which could allow NCAs/NMAs and Eurosystem central banks broader and more timely access to data;
- EU legislators taking up the Eurosystem´s proposal for targeted changes to Article 25 AIFMD and Article 20a UCITS Directive, with the aim of facilitating Eurosystem central banks' access to granular data on investment funds, in accordance with their mandates.

Until these new data access arrangements for the relevant authorities are in place, ESMA could play a more prominent role using the EU-wide data they have access to (or can request from jurisdictions). Such a process would, however, be lengthy and more complicated than what would be possible after the new data access framework is in place. The EU should aim for a process that is simple by design.

[102] For example, in Germany, the Financial Stability Committee (*Ausschuss für Finanzstabilität*) is the NMA established in accordance with Recommendation ESRB/2011/3. The German Finance Ministry, BaFin and the Deutsche Bundesbank are represented in this Committee. Pursuant to the relevant national law (*Finanzstabilitätsgesetz*), the Deutsche Bundesbank has a prominent role in this Committee and, based on quantitative analyses, generally provides the proposals for the Committee's decisions.

8.2.6 Proportionality assessment

Proportionality should be one of the criteria applied by ESMA (in collaboration with the ESRB) when considering reciprocation requests. What is proportionate will need to be identified by ESMA, in collaboration with the ESRB, on a case-by-case basis, as setting out ex ante requirements would be too rigid given the heterogeneity of the fund sector and the multiple potential scenarios under which macroprudential measures could be applied. This should be based on reciprocation being material to the efficacy of the macroprudential measures taken by the proposing NCA/NMA. For instance, if fund cohorts (i.e. funds that exhibit similar vulnerabilities and have similar investment strategies, even across multiple asset management companies) hold a material amount of assets that the macroprudential measures are being applied to, regardless of how many funds these assets are held in, then reciprocation should be considered and, ideally applied by the other NCAs/NMAs. If reciprocation is not material to the overall efficacy of the measure, the NCAs/NMAs would not need to consider the reciprocation request, on the grounds of proportionality.

8.2.7 Non-reciprocated requests

If ESMA decides positively on a reciprocation request but some or all of the relevant NCAs/NMAs do not agree to reciprocate (based on a detailed explanation), ESMA should as a last resort be able to adopt an EU-wide measure enforcing temporary reciprocation of the measure across the EU. This temporary power would be broadly equivalent to the product intervention powers contained in Article 40 MiFIR. It would allow ESMA to introduce temporary measures that would aid implementation of the macroprudential measure by the proposing NCA/NMA by ensuring a level playing field across the EU and prevent any distortions of the Single Market that may occur from non-reciprocation by some or all of the relevant NCAs/NMAs.

As with Article 40 MiFIR, this would be a temporary measure designed to facilitate further engagement between the proposing NCAs/NMAs and other relevant NCAs/NMAs. The power should be renewable, subject to a limit on the number of renewals permitted, but should provide ample time for further discussions between ESMA and the relevant NCAs/NMAs as to why they are not reciprocating the original measures and implementation of the measure in the proposing NCA/NMA's Member State (say, for instance, a cap of 1-2 years on application of the EU-wide measure). Specific details on the conditions that should guide ESMA's adoption of a temporary measure, the maximum allowable timeframe for its application, and the conditions under which it would be implemented and dis-continued, should be set out in future guidance.

ESMA will need the approval of its BoS, following consultation with the ESRB.

8.2.8 Top-up powers

ESMA, in collaboration with the ESRB, should have EU-level powers to ensure systemic risk build-up across the EU, or in a single Member State, is contained by implementing appropriate macroprudential measures.[103] These would apply to the existing power as contained in Article 25 AIFMD and any new macroprudential tool that may be developed in future.

In line with the revised decision-making process outlined above, ESMA, in collaboration with the ESRB, could, if deemed necessary, do the following.

- Apply more stringent macroprudential requirements than those being proposed/applied by the NCA/NMA, be that in terms of the parameters of the measures, their scope, duration, etc.
- To avoid inaction bias, recommend implementation of an appropriate macroprudential requirement by one or more NCAs/NMAs, in the event that no existing national measures are in place. This could be on ESMA's own initiative or in response to a request from another NCA/NMA. The NCAs/NMAs to whom the recommendation was being made would then have to respond via a comply or explain procedure and ESMA may then re-assess.[104]

8.2.9 Complementary use of reciprocation and top-up powers

It is envisioned that reciprocation and top-up powers could be applied to the same measure; they are not necessarily intended to be mutually exclusive. For instance, it is plausible that ESMA, in collaboration with the ESRB, would determine that a proposed national measure needs to be strengthened and should be reciprocated in other Member States. It is useful to view reciprocation and top-up powers as part of a package that could, when required, be used in concert and not only separately.

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[103] In this context, top-up powers is taken to mean the application of a more stringent set of requirements than those being proposed by an NCA/NMA, which is in contrast to reciprocation, which seeks replication of measures in other Member States but not the adjustment of their parameters. It can also mean the request to implement a macroprudential measure by one or more NCAs/NMAs where none currently exist.

[104] The proposal for a comply-or-explain procedure recognises the flexibility in the macroprudential instruments for the asset management sector, and the need to develop measures tailored to the specific risks and circumstances before they can be activated at the national level.

Sub-Annex – The CCP Supervisory Committee as an example of an existing model that convenes relevant authorities beyond ESMA members

ESMA Standing Committees (SCs) are permanent structures, defined by legislation or established by the ESMA BoS. There are several types of SCs: horizontal (normally aligned with strategic priorities), sectoral, specific Central Clearing Counterparty (CCP)-related committees and a Proportionality and Coordination Committee (PCC).

The purpose behind outlining the functioning of the CCP Supervisory Committee (CCP SC) is to outline a model of how appropriate representation of NMAs not normally represented in ESMA could be accommodated, learning from examples already in existence. It is not meant to indicate that the CCP SC architecture should be precisely replicated as part of the governance framework for EU-level macroprudential measures for investment funds, but rather as an illustrative example.

Structure

Generally speaking, the Chair of an SC is a member of the ESMA BoS or – in exceptional circumstances – an alternate. However, some SCs are currently chaired by a senior ESMA staff member.

The nomination of members of ESMA SCs is as follows.

- The composition of the group is agreed by the Chair of the SC.
- Unless specified otherwise in the legislation or terms of reference, all members of the BoS are entitled to nominate a representative to any ESMA group reporting to the BoS. Appointed representatives may be from the member's own organisation or from another designated NCA, depending on the implementation of the legal framework in individual Member States. Terms of reference of ESMA groups might provide for other authorities to be designated as members or observers as appropriate in light of the respective legal framework (such as central banks, resolution authorities etc.).
- Where the Member State of the BoS member has more than one authority responsible for supervision according to the ESMA Regulation,[105] the BoS

[105] Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/E (OJ L 331, 15.12.2010, p. 84).

member must ensure a common representative is nominated as the principal representative in the ESMA group reporting to the BoS. Nevertheless, the principal representative may bring a representative from the other relevant national authority(ies) along as observer(s).

An example of one such SC is the CCP Supervisory Committee (CCP SC). This is composed of:

- the chair and two independent members, all acting as voting members;
- the NCAs of Member States with an authorised CCP (which are often central banks), all acting as voting members – if there is more than one NCA per Member State, the representatives of the respective Member State shall together be considered as one voting member;
- where the CCP SC convenes in relation to third-country (TC) CCPs, in respect of the preparation of all decisions pertaining to the tiering of TC-CCPs, and the supervision of Tier 2 CCPs, the central banks of issue of all EU currencies of the financial instruments cleared or to be cleared by the CCP that have requested membership of the CCP SC, who shall be non-voting;
- where the CCP SC convenes in relation to authorised EU-CCPs, the central banks of issue of EU currencies of the financial instruments cleared by the CCPs that have requested membership of the CCP SC, who shall be non-voting.

Tasks and responsibilities

The tasks and responsibilities of the CCPSC are defined primarily in Article 24a (7) to (10) EMIR. In particular, in performing its tasks and responsibilities, the CCP SC contributes to ESMA's mission and to the following strategic priorities of the ESMA strategy:

- fostering effective markets and financial stability;
- strengthening supervision of EU financial markets.

In addition, the CCP SC will contribute to the objective of simplification and burden reduction when developing its regulatory and supervisory output and be accountable to the BoS for the way those issues have been addressed in the final outputs.

The Chair of the CCP SC can organise the following consultations on behalf of ESMA and/or the CCPSC:

- ESMA consulting the ESRB and the central banks of issue with regards to the determination of whether a CCP is a Tier 2 CCP;

- the CCP SC consulting the central banks of issue regarding decisions to be taken in relation to Tier 2 CCPs with respect to margin requirements, liquidity risk control, collateral, settlement and approval of interoperability arrangements;
- the CCP SC consulting the ESRB and seeking the agreement of the central banks of issue for matters relating to the currencies they issue with regard to decisions to be taken with respect to TC-CCPs of such substantial systemic importance that they should not be recognised;
- ESMA consulting the relevant authorities when assessing whether a TC-CCP meets the conditions for recognition, or before withdrawing a recognition decision;
- ESMA consulting the EBA, EIOPA and ECB for the identification of cross-border risks arising from the CCP's activities.

While the CCP SC is a good example of a committee that convenes relevant authorities other than ESMA members, a similar macroprudential standing committee for the purposes outlined in the note above would not necessarily require a chair and two independent members. Rather, the macroprudential standing committee would comprise all relevant authorities including NMAs and convene (if required) on a more regular basis.

Sub-Annex – Worked example: Irish property funds

The following worked example includes existing macroprudential leverage limits applicable to Irish property funds but focuses on a hypothetical scenario where reciprocation and top-up powers might be engaged.

Reciprocation

Irish property funds (i.e. AIFs authorised by Central Bank of Ireland (CBI) that hold 50% or more of their assets in Irish property assets) are subject to a 60% leverage limit under Article 25 AIFMD. For the purposes of this worked example, the hypothetical scenario is as follows: the CBI has since determined that exposures to Irish CRE assets from AIFs located in jurisdiction X and jurisdiction Y have increased significantly. These AIFs are not currently subject to a leverage limit but invest in Irish property assets. As such, the CBI determines that there is a need for reciprocation of the measure in jurisdiction X and jurisdiction Y to avoid the build-up of systemic risk in Ireland owing to the growth in funds investing in these assets but not subject to an equivalent leverage requirement as exists for Irish property funds.

The CBI submits a request to ESMA, outlining the reasons why they think that reciprocation is needed. For example, that there has been an increase in exposure to Irish property assets from AIFs located in these jurisdictions and that some AIFs that are now holding 50% or more of their assets in Irish property. Therefore, to ensure consistent treatment of the risks to EU financial stability, to promote a level playing field, and to prevent cross-border regulatory arbitrage, the AIFs that meet the same criteria as the AIFs subject to the measures in Ireland, i.e. hold more than 50% of their assets in Irish property) should be subject to the same macroprudential leverage limits.

As stated above, proportionality should be one of the criteria applied by ESMA (in collaboration with the ESRB) when considering reciprocation requests. What is proportionate in this instance would be the amount of Irish property investment coming through regulated investment funds in other EU jurisdictions and how this affects overall market dynamics. This would be dependent on financial stability analysis from the CBI in the first instance. There would then be an assessment of the judgement of the CBI by ESMA, in collaboration with the ESRB. If ESMA and the ESRB also judge that there are financial stability risks, they would then share the request with their membership and consult with the ESRB with a view to facilitating the consideration of the reciprocation request. In this instance, ESMA would issue accompanying guidance stating that the measures should be reciprocated. The NCAs/NMAs in jurisdictions X and Y should then be subject to a “comply or explain” process.

Top-up powers

In this hypothetical scenario, ESMA, in collaboration with the ESRB, might deem a 60% leverage limit to be insufficient for property funds. Alternatively, it could also be judged that AIFs that hold only 40% of their assets in property assets are contributing to the build-up of very high leverage. As such, ESMA, in collaboration with the ESRB, might decide to reduce the leverage limit to below 60% and/or change the scope of the measures to include those funds that hold less than 50% of their assets in property assets. These top-up powers can be seen as “additional” to reciprocation.

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