EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR FINANCIAL STABILITY, FINANCIAL SERVICES AND CAPITAL MARKETS UNION

Financial stability, sanctions and enforcement
Macroprudential policy

TARGETED CONSULTATION DOCUMENT

ASSESSING THE ADEQUACY OF MACROPRUDENTIAL POLICIES FOR NON-BANK FINANCIAL INTERMEDIATION (NBFI)

You are invited to reply **by 22 November 2024** at the latest to the **online questionnaire** available on the following webpage:
https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-assessing-adequacy-macroprudential-policies-non-bank-financial-intermediation_en

Please note that in order to ensure a fair and transparent consultation process **only responses received through the online questionnaire will be taken into account and included in the report summarising the responses**.

This consultation follows the normal rules of the European Commission for public consultations. Responses will be published in accordance with the privacy options respondents will have opted for in the online questionnaire.

Responses authorised for publication will be published on the following webpage: https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-assessing-adequacy-macroprudential-policies-non-bank-financial-intermediation_en#consultation-outcome

Any question on this consultation or issue encountered with the online questionnaire can be raised via email at fisma-nbfi-consult@ec.europa.eu.

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GLOSSARY

Acronym	Full name
AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Alternative Investment Fund Managers Directive
CBI	Central Bank of Ireland
CCP	Central Clearing Counterparty
CD	Certificate of Deposits
CP	Commercial Paper
CMU	Capital markets union
CRR	Capital Requirements Regulation
CSSF	Commission de Surveillance du Secteur Financier (Luxemburg)
EBA	European Banking Authority
ECB	European Central Bank
ECM	Enhanced Coordination Mechanism
ESAs	European Supervisory Authorities
EIOPA	European Insurance and Occupational Pensions Authority
EMIR	European Market Infrastructure Regulation
ESFS	European System of Financial Supervision
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
GDP	Gross Domestic Product

IOSCO	International Organization of Securities Commissions
LDI	Liability Driven Investment
LMT	Liquidity Management Tool
LRMP	Liquidity Risk Management Plans
MiCAR	Markets in Crypto Assets Regulation
MiFIR	Markets in Financial Instruments Regulation
MMF	Money Market Fund
MMFR	Money Market Fund Regulation
MMI	Money Market Funds Instrument
NAV	Net Asset Value
NBFI	Non-Bank Financial Intermediation
NBFIs	Non-Bank Financial Intermediaries
NCA	National Competent Authority
NMM	National Macroprudential Measure
OEF	Open-Ended Funds
ORSA	Own Risk and Solvency Assessment
RTS	Regulatory Technical Standard
UCITS	Undertakings for Collective Investment in Transferable Securities
UCITSD	Undertakings for Collective Investment in Transferable Securities Directive

INTRODUCTION

Setting the scene

Non-Bank Financial Intermediation (NBFI) comprises very diverse financial sectors including regulated entities such as asset management companies and investment funds, non-bank investment firms, pension funds, insurance companies, and unregulated entities, such as family offices and supply chain finance companies.[1] In Q3 2023, non-bank financial intermediaries (NBFIs) accounted for roughly €42.9 trillion (41% of EU total financial assets), while banks' assets accounted for roughly EUR 38 trillion (36% of EU's total financial assets).[2] Together with entities (NBFIs), capital markets are also a key component of NBFI and have grown over the years in Europe and globally to several multiples of global GDP.

In response to major events in recent years (e.g. the dash-for-cash in March 2020 and the UK gilt crisis in 2022),[3] **financial stability concerns about NBFI have emerged in international policy discussions and with initiatives in a number of non-EU and EU jurisdictions.** This consultation, therefore, seeks to gather stakeholders' views on these international developments to inform our macroprudential stance on NBFI. In particular, the Financial Stability Board (FSB), the International Organization of Securities Commissions (IOSCO), and jurisdictions, such as the US and the UK, have put forward consultations on assessing gaps in the macroprudential framework for NBFIs, or have announced or implemented various initiatives for NBFI (e.g. money market funds reforms).[4] The FSB's work programme has been advancing in key areas for NBFI, such as leverage, margin preparedness and vulnerabilities for open-ended funds. IOSCO also consulted on anti-dilution Liquidity Management Tools (LMTs) and is progressing work in the area of private finance. The Central Bank of Ireland (CBI) has published a consultation paper on a holistic approach to macroprudential policies in the investment funds sector.[5] CBI has

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[1] The ESRB also includes an assessment of the crypto-asset ecosystem in the NBFI monitor, as it "may engage in types of financial intermediation that lead to similar vulnerabilities and expose them to similar risks". The FSB defines "the NBFI sector" as "a broad measure of all non-bank financial entities, composed of all financial institutions that are not central banks, banks or public financial institutions." This categorisation also includes financial market infrastructure under the category of 'market intermediaries'. Nonetheless, the FSB also identified a 'narrow measure' for NBFI, which is not based on entities, but as a bank-like activity measure.

[2] ECB Datawarehouse. Total financial assets include assets held by central banks.

[3] The FSB pointed at the significant contribution of NBFI to the 'dash for cash' during the March 2020 COVID crisis, especially via spikes in "redemptions from investment funds, margin calls [by market operators] resulting from increased volatility, and the need of some non-banks to unwind leveraged positions." Similarly, in September 2022, the quick rise in interest rates of UK Gilts (and subsequent fall in prices) sparked large margin calls in the pension funds sector, especially in the UK. In particular, pension funds pursuing Liability-Driven (LDI) strategies led to a major sell-off of UK Gilts, which in turn caused the Bank of England to intervene with a massive asset purchase programme. Moreover, the market stress caused by COVID in March 2020 revealed that Money Market Funds (MMFs) can be susceptible to runs by investors (implying a so called first-mover advantage) that can exacerbate liquidity shocks, as MMFs have to sell their assets to fund outflows. It is important to note that, despite the run, especially on USD-denominated funds, MMFs in the European Union were able to withstand such large outflows. This situation was also caused by structural illiquidity in underlying short-term funding markets (e.g. commercial paper). See ESRB recommendation.

[4] On 28 September 2023, the Bank of England also announced a new monetary policy action with the plan to create a new liquidity tool for NBFIs, which will initially cover insurance and pension funds and may potentially be extended to all NBFI entities that meet certain eligibility (ex-ante resilience) requirements. A journey of 1000 miles begins with a single step: filling gaps in the central bank liquidity toolkit - speech by Andrew Hauser | Bank of England.

[5] Discussion Paper, An approach to macroprudential policy for investment funds, Central Bank of Ireland.

adopted two macroprudential measures under Article 25 of the Alternative Investment Funds Directive (AIFMD):[6] a leverage limit for Irish property funds introduced in 2022,[7] and a yield buffer to mitigate leverage of GBP-denominated Liability-Driven Investment (LDI) funds (being adopted also by the Luxembourg market authority, CSSF).[8]

Nonetheless, NBFI is also a source of financial diversification and so resilience in itself. In the context of the **Capital Markets Union (CMU),** stable and integrated capital markets are **key sources of funding** for the economy and complement traditional bank lending, while they also provide tools to manage financial and non-financial risks. **NBFIs and capital markets thus play a pivotal role in fostering the diversity of financial markets structure and contributing to the resilience of the financial system through private risk sharing and reduced overreliance on traditional (relationship) bank lending.** Over the years, the European Union (EU) has introduced several regulations and directives governing activities of different NBFIs and markets, in some instances providing macroprudential tools that have been tailored to specific NBFI sectors (see section 2). Moreover, since the global financial crisis in 2008, banking reforms have gradually tightened prudential requirements and this can have (directly or indirectly) restricted the size and scope of activities performed by banks, creating opportunities for NBFIs to expand their activities in areas that were largely performed by banks.

Objectives of the consultation and target audience

The objective of this consultation is to seek stakeholders' view on the adequacy of the macroprudential framework for NBFI with the intent not to revisit recent legislative agreements (e.g. Solvency II review, EMIR 3).

Article 513 of Regulation (EU) No 575/2013 (CRR)[9] requires the Commission to review the EU macroprudential framework, including how authorities in the EU can be mandated with tools to address new emerging systemic risks arising from credit institutions' exposures to NBFI. In its recent report on the macroprudential review,[10] in light of the emerging vulnerabilities in the NBFI sectors, the Commission announced the intention to go beyond the legal basis in CRR and collect more evidence on the effectiveness and consistency of macroprudential policies for NBFIs in the EU, focusing in particular on:

– Evaluating the effectiveness of the existing macroprudential tools and supervisory arrangements in achieving their purpose;

[6] 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 L 174, 01/07/2011, p. 1–73.

[7] Framework | Central Bank of Ireland.

[8] Liability Driven Investment (LDI) Funds | Central Bank yield Ireland and CSSF communication on GBP Liability Driven Investment Funds consultation – CSSF.

[9] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, OJ L 176, 27.6.2013, p. 1–337.

[10] Report from the Commission to the European Parliament and the Council on the macroprudential review for credit institutions, the systemic risks relating to Non Bank Financial Intermediaries (NBFIs) and their interconnectedness with credit institutions, under Article 513 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and amending Regulation (EU) No 648/2012, COM(2024)21.

- Considering repurposing or reviewing existing microprudential and reporting tools (e.g., their activation/trigger and design); and

- Assessing, if necessary, the possibility to introduce new macroprudential tools, as well as tools to improve EU-wide coordination.

Commission services will use the information gathered in this consultation to inform the policy planning of the upcoming 2024-2029 College of Commissioners.

Responding to this consultation

Targeted stakeholders in this consultation include primarily EU institutions and bodies, national authorities, including National Competent Authorities (NCAs) that supervise NBFIs (as defined above) and markets, central banks and the NBFI industry. All stakeholders are nonetheless invited to respond to the questions set out below. Please note that some questions may indicate that feedback is particularly sought from specific types of stakeholders.

The Consultation Paper aims, first, to identify vulnerabilities and risks of NBFIs and map the existing macroprudential framework for NBFIs (Sections 1 and 2). Second, it seeks to gather feedback on current challenges to macroprudential supervision and discuss areas for further improvements (Sections 3 to 6).

CONSULTATION QUESTIONS

1. KEY VULNERABILITIES AND RISKS STEMMING FROM NBFI

Based on the recent Commission's report on the macroprudential review for banks and NBFI, this consultation paper identifies the following key vulnerabilities stemming from NBFI: 1) unmitigated liquidity mismatches[11]; 2) the build-up of excessive leverage; 3) interconnectedness among NBFI sectors and between NBFI and banks. Moreover, a lack of consistency and coordination among macroprudential frameworks across the EU can exacerbate the negative impact of such vulnerabilities, leading to unaddressed systemic risks (see Table 1 below).

Table 1 – Key vulnerabilities and systemic risks stemming from NBFI

Vulnerabilities	Systemic risks
Unmitigated liquidity mismatches	Liquidity risk
Excessive leverage	Liquidity risk, counterparty risk, concentration risk
Interconnectedness	Liquidity risk, counterparty risk, concentration risk, risk amplification, underestimation of risk, spillover risks

On **unmitigated liquidity mismatches**, events in March 2020, during the market stress caused by COVID-19, revealed, for instance, that some Money Market Funds (MMFs) experienced runs by investors to secure cash.[12] While no EU-based MMF had to introduce redemption fees or gates, or suspend redemptions, the European Central Bank (ECB) intervened with a purchase programme in the underlying short-term funding markets, in particular in Commercial Paper (CP) and Certificates of Deposits (CD) markets, which also contributed to stop outflows in those MMFs.[13] Similar vulnerabilities may also arise in other investment fund segments with less liquid underlying markets, such as open-ended fixed income and real estate funds.[14] With regard to

[11] A liquidity mismatch is a financial situation typical of entities that are engaged in liquidity transformation, whereby the liquidity of the invested assets does not correspond (either in full or in part) to the liquidity of the liabilities of that given entity. For instance, liquidity mismatch in investment funds implies that some of the assets cannot be liquidated within the same timeframe that is required by the fund to fulfil under its redemption policy scenario. An 'unmitigated' liquidity mismatch is a situation where such liquidity mismatch is not adequately mitigated by specific tools, such as liquidity management tools to withstand a plausible redemption scenario.

[12] In particular, some MMFs that offered stable redemption prices, but invested primarily in assets issued by private entities that are less liquid than cash, experienced acute stress. Among those, USD-denominated LVNAV saw the largest outflows during the period. See Commission report on the functioning of the MMF Regulation. During this period, the European Central Bank (ECB) also intervened with a purchase programme in the underlying short-term funding markets, in particular in Commercial Paper (CP) and Certificates of Deposits (CD) markets, which also contributed to stop outflows from those MMFs.

[13] See Commission report on the functioning of the MMF Regulation.

[14] In the case of real estate funds, several funds across the EU had to introduce longer notice periods to deal with illiquidity and rising redemption rates.

MMFs, the MMF Regulation (MMFR)[15] includes specific safeguards to ensure the stability, liquidity and safety of investments in MMFs. These include liquidity requirements, maturity limits, quality standards for investments, and bi-annual stress testing executed by managers, the results of which are communicated to supervisors. Maintaining adequate liquidity buffers is crucial to effectively monitor and manage liquidity risk. Changes in buffers usually reflect adjustments to risk and/or changes in the composition of the investor base, which require holding a smaller or bigger liquidity buffer.

On **leverage**,[16] the failure of Archegos Capital Management, an unregulated 'family office' operating on behalf of a wealthy investor is an example of the potential negative impact of excessive leverage on lenders and the financial system as a whole.[17] Archegos leveraged at least 5-6 times their invested capital to build excessively large and concentrated equity derivative exposures disregarding risk management best practices, like limiting asset concentration.[18] Moreover, an entity that takes a leveraged position, for instance through derivatives, may also be exposed to counterparty credit risk if the counterparty providing liquidity to fund margin calls is not sufficiently robust to keep providing liquidity in stressed conditions. Excessive leverage could also go undetected when using complex investment strategies involving several legal entities and fund of funds.

Interconnectedness, which is key to generate efficiencies in financial markets, can make systemic risk difficult to detect, as it can create unforeseen risk amplifiers and transfer of risk within NBFI sectors and/or between the banking and NBFI sectors (e.g. in funding markets). For instance, the sudden surge in energy prices in 2022 led to a sharp rise in margin calls for key energy contracts, which in turn led to a sale of assets to cover margin calls by both banks and NBFIs and to the downward move in prices of such assets intensifying a vicious circle in asset prices.[19] Unexpected margin calls, due to large price shocks or procyclical effects, does thus increase liquidity risk. During the surge in prices, some big energy derivatives trading companies were not sufficiently prepared for a spike in prices and the subsequent significant margin calls and had to request government support to avoid large losses on their hedges.[20] In recent years, crypto assets markets have also grown in size, as they are increasingly becoming target markets

[15] 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. 8–45

[16] 'Leverage' means any method by which a legal or a natural person increases its exposure to an asset whether through borrowing of cash (financial leverage) or through borrowing securities or through leverage embedded in derivative positions (synthetic leverage).

[17] Archegos collapsed in Q1 2021 and spread large losses across financial institutions (and most of all on Credit Suisse with a $5.5 billion loss) due to a too large exposure to a few stocks via total return swaps and contracts for difference. Please see Archegos info kit – Credit Suisse (credit-suisse.com). See ESMA p. 4 esma50-165-2096_leverage_and_derivatives_the_case_of_archegos.pdf (europa.eu). In particular, in the US, where the family office was located, market participants had to disclose stakes (direct holdings) in companies if they own more than 5%, but synthetic exposures through Total Return Swaps (TRSs) were not included. In the EU, as ESMA clarified, Member States had the discretion to impose notification for capital holdings, which include TRSs.

[18] Although exact figures are unknown, Archegos held assets on the order of $10 billion, with exposures of between $50 billion and $100 billion (even higher according to some reports). These exposures were largely concentrated in shares of Viacom CBS and Discovery (U.S. telecommunications groups) and in various Chinese technology companies (e.g. Baidu). See 03. Archegos and Greensill: collapse, reactions and common features (bde.es).

[19] It should be noted that most financial entities mark their assets to the current market prices, and thus adverse price movements impact their solvency, and subsequently their perceived creditworthiness and their cost of funding.

[20] Germany pledges €67bn to bolster struggling energy companies | Financial Times (ft.com).

of institutional investors. Understanding the risks emerging from the growing interconnectedness between traditional and emerging digital financial assets is essential. The entry into force of the Markets in Crypto Assets Regulation (MiCAR)[21] will ensure regulation and supervision of crypto assets and crypto asset service providers and will enable supervisors to have a better picture of these risks. Interconnectedness could also emerge from the failure of a NBFI, which can have knock-on effects on other NBFIs, the banking sector or the economy and may require mitigation measures.

On coordination and consistency, the macroprudential tools available to supervisors in NBFI are applied or activated by supervisors that often operate with varying mandates and enforcement powers even within the same jurisdiction. This can lead to an inconsistent application of macroprudential tools, an unlevel playing field within the EU and a heightened risk of supervisory and regulatory arbitrage, as well as an inability to detect systemic risk. In addition, due to the cross-border nature of the non-banking sector, the lack of cross-jurisdiction coordination in times of systemic crisis could magnify the negative impact of such vulnerabilities. For the investment fund sector, the European Securities and Markets Authority (ESMA) is tasked with a coordination role over supervisory activities by NCAs. During the COVID-19 crisis, ESMA held bi-weekly meetings with NCAs, supported by an ad-hoc data collection on liquidity risks. Under Article 25 AIFMD, ESMA, after considering the advice of the European Systemic Risk Board (ESRB), issued advice to NCAs on the use of leverage limits by AIFMs,[22] when leverage poses a substantial risk to the stability and integrity of the financial system.[23] ESMA has also published guidelines to promote effective and convergent practices on stress testing and to identify leverage-related systemic risk, which helps NCAs to define when the conditions to impose leverage limits are met.[24]

Against this background, NBFIs are also a source of funding opportunities for companies seeking access to finance from capital markets. In the context of the Capital Markets Union, policy interventions to address vulnerabilities and risks of NBFIs should not unnecessarily constrain funding opportunities that NBFIs bring to the financial system.

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[21] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, OJ L 150, 9.6.2023, p. 40–205.

[22] ESMA advice on CBI measure AIFMD Art25

[23] According to Article 25(6) of AIFMD, the European Securities and Markets Authority (ESMA) shall issue advice on whether the conditions for taking action appear to be met, whether the measures are appropriate and on the duration of the measures.

[24] ESMA publishes final guidance to address leverage risk in the AIF sector (europa.eu); Guidelines on liquidity stress testing in UCITS and AIFs (europa.eu) and ESMA updates the parameters and methodology for MMF stress testing (europa.eu).

Questions

Please consider how the question applies to different NBFI sectors (entities and markets) and specify the NBFI sectors concerned when providing a response. Please also provide quantitative evidence, where possible.

Question 1. Are there other sources of systemic risks or vulnerabilities stemming from NBFIs' activities and their interconnectedness, including activity through capital markets, that have not been identified in this paper?

Question 2. What are the most significant risks for credit institutions stemming from their exposures to NBFIs that you are currently observing? Please provide concrete examples.

Question 3. To what extent could the failure of an NBFI affect the provision of critical functions to the real economy or the financial system that cannot easily be replaced? Please explain in particular to which NBFI sector, part of the financial system and critical function you refer to, and if and how you believe such knock-on effect could be mitigated.

Question 4. Where in the NBFI sectors could systemic liquidity risk most likely materialise and how? Which specific transmission channels of liquidity risk would be most relevant for NBFI? Please provide concrete examples.

Question 5. Where in the NBFI sectors do you see build-up of excessive leverage, and why? Which NBFIs could be most vulnerable? Please provide concrete examples.

Question 6. Do you observe any systemic risks and vulnerabilities emerging from crypto assets trading and intermediaries in the EU?

Question 7. Considering the role NBFIs have in providing greater access to finance for companies and in the context of the capital markets union project, how can macroprudential policies support NBFIs' ability to provide such funding opportunities to companies, in particular through capital markets? Please provide concrete examples.

2. OVERVIEW OF EXISTING MACROPRUDENTIAL TOOLS AND SUPERVISORY ARCHITECTURE IN EU LEGISLATION

A more integrated EU macroprudential framework governing NBFI, and tackling emerging risks across NBFI sectors, is key to mitigate the build-up or manage the impact of systemic risk. In the aftermath of the 2008 financial crisis, the EU enhanced its **microprudential framework** and introduced for the first time **macroprudential oversight** for banks and key NBFI sectors, such as the investment funds and insurance sectors. For banks, moreover, it also introduced a common macroprudential framework, with tools exclusively designed to mitigate systemic risks, together with a comprehensive crisis management framework to provide more powers and tools to deal with systemic crises.[25]

[25] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU,

On supervision of NBFI, the European System of Financial Supervision (ESFS), which includes, among others, the ESRB and the European Supervisory Authorities (ESAs),[26] is designed to ensure the stability and proper functioning of the EU financial system. The ESRB[27] is the body responsible for macroprudential oversight at the EU level and thus contributes to the prevention and monitoring of systemic risks in the EU.[28] ESMA[29] and EIOPA[30] are, each in specific NBFI sectors, responsible for monitoring, assessing and measuring systemic risk.[31] In recent years, EBA[32] has also gained a greater role in NBFI with oversight responsibilities of significant asset-referenced and e-money token issuers under the MiCAR. The ESAs are also tasked to promote strong, effective and consistent regulation and supervision, as well as a more harmonised and consistent application of EU rules. The ESRB and the ESAs work collaboratively to monitor and assess risks, coordinating with NCAs across EU Member States, also developing own tools, such as stress tests.

On regulation, EU legislation already includes **a number of macroprudential tools** that have been introduced in sectoral legislation over the years (see following sections for more details). **Macroprudential tools** are requirements or procedures designed to directly mitigate vulnerabilities and to protect the financial system as a whole from large systemic events,[33] while **microprudential tools** may only indirectly mitigate systemic risk by addressing entity or transaction-level risks.[34] Macroprudential tools typically take the form of:

2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council, OJ L 173, 12.6.2014, p. 190–348.

[26] The European Securities and Markets Authority (ESMA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Banking Authority (EBA).

[27] Established with 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 331, 15.12.2010, p. 1–11 (‘ESRB Regulation').

[28] Article 3(1), ESRB Regulation.

[29] Established with 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/EC OJ L 331, 15.12.2010, p. 84–119 (‘ESMA Regulation’).

[30] Established with Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC OJ L 331, 15.12.2010, p. 48–83 (‘EIOPA Regulation’).

[31] Article 8 of the ESMA Regulation and Article 8 of the EIOPA Regulation.

[32] Established with Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC, OJ L 331, 15/12/2010, p. 12–47.

[33] As stated in the De Larosière Report, “the objective of macro-prudential supervision is to limit the distress of the financial system as a whole in order to protect the overall economy from significant losses in real output.”

[34] For instance, leverage limits are prudential measures that have a microprudential nature when they are designed and implemented to face an idiosyncratic entity or transaction-level risk, but they are macroprudential tools when they are designed and implemented at sector-wide level, disregarding the individual business model or activity. This is the case of structural limits for Alternative Investment Funds, under the recently agreed AIFMD/UCITS review, which qualify as macroprudential tools.

– **pre-emptive measures** (i.e. *ex ante* measures activated before systemic risk materialises, such as leverage limits[35]); and

– ***ex-post* measures** (i.e. measures activated once systemic risk materialises, such as suspension of investors' rights to redeem units of investment funds).[36]

As the NBFI includes very diverse business models and markets, macroprudential tools are tailored for the different NBFI sectors to successfully address systemic risks. For instance, while capital buffers tools are generally applicable to insurance companies (a principal-based business), these tools may not fit the business model of investment funds or family offices (agent-based businesses). Moreover, macroprudential tools can be a combination of **activity-based** and **entity-based measures.** Activity-based measures are applicable, based on financial stability concerns, to the type of activity provided regardless of the NBFI entity providing it. Entity-based measures include leverage limits applicable to a specific entity or group of entities.

Table 2. Examples of macroprudential tools for NBFI in EU legislation and key characteristics

	Activity-based	**Entity-based**
Pre-emptive tools	Leverage limit for loan-originating funds (introduced in the AIFMD/UCITS review)	Structural liquidity buffers (pre-emptive measure; Art. 24-25 MMFR)
***Ex-post* tools**	Power to prohibit/restrict short selling transactions in case of serious threats to financial stability (ex post measure; Art. 28 Short Selling Regulation[37])	Suspension of redemption rights (Art. 45 AIFMD and Art. 84 UCITSD[38])

Macroprudential tools should be typically accompanied by effective and well-coordinated oversight, coordination (at least at EU level), as well as adequate reporting and disclosure rules to ensure visibility over market participants' actions and to ensure that the tools are properly implemented. Given the cross-border nature of NBFI, oversight should be done not only at national, but also at an EU level to ensure that all relevant NCAs have the necessary information to mitigate systemic risks in the EU. It should be assessed whether more needs to be done to strengthen the macroprudential oversight and coordination mechanisms of the EFSF in the EU.

[35] This subset, among other, includes: 1) capital, margin, or liquidity buffers to prevent the build-up of vulnerabilities, and thus mitigate the materialisation of risks stemming from or leading to a systemic shock; 2) Limits to the build-up of leverage for banks and non-banks that are designed exclusively to increase the loss absorption of financial institutions against a systemic event or restrict certain activities/behaviours.

[36] This subset, among other, includes: 1) tools designed to avoid procyclicality of margin haircuts or to better manage the liquidity of investment funds against redemption risk (so called, liquidity management tools, LMTs); and 2) powers to halt trading in specific instruments or activities in times of extreme volatility or in case of a systemic event to protect the public interest, e.g. via the suspension of redemptions of units of investment funds.

[37] Regulation (EU) No 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps, *OJ L 86, 24.3.2012, p. 1–24*

[38] 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) (recast), OJ L 302, 17.11.2009, p. 32–96.

2.1 Asset management and open-ended funds (OEFs)

The EU's investment fund sector operates under a comprehensive regulatory framework, primarily governed by the AIFMD and the UCITSD. In addition, MMFs are subject to additional rules provided for by the MMFR. These pieces of legislation include a wide array of regulatory requirements addressing the use of leverage, liquidity risk management, transparency and portfolio concentration and diversification.

For instance, the AIFMD (Article 25) empowers NCAs under certain circumstances to introduce limits on the leverage used by AIFs. On this legal basis, in 2022, the CBI introduced a leverage limit for Irish property funds.[39] Furthermore, on the same basis, the CBI and CSSF both plan to introduce in Ireland and Luxembourg respectively yield buffers for LDI[40] Funds.

To ensure sound liquidity risk management, the EU rules require AIF and UCITS managers to conduct stress testing, which is further specified in ESMA guidelines.[41] According to the MMFR, MMF managers should conduct such stress tests twice a year.[42] In calibrating risk parameters and adverse scenarios, ESMA[43] worked closely with the ESRB and the ECB. If stress tests reveal vulnerabilities, the MMF manager must report and come up with a 'proposed action plan' to be communicated to the NCA thereof.

UCITSD and MMFR rules requiring diversification and imposing limits on investment concentration also address some of the risks stemming from interconnectedness with other financial and non-financial entities and sectors. AIFMs report to the supervisors on the principal exposures, concentrations and main counterparties, including on their risk profile, to monitor risk build-up in the financial system.

The 2024 review of the AIFMD/UCITSD amends the two legal frameworks by harmonising the definitions and application of LMTs designed to enhance UCITS and open-ended AIFs' ability to manage liquidity risks effectively. Moreover, the review sets a new structural leverage limit for loan-originating funds and requires risk diversification where loans are originated to other providers of financial services, thus further strengthening the sector's risk management capabilities. It also allows for the broadening of the scope of reporting for supervisory purposes potentially covering portfolio data, while improving reporting efficiency and minimising administrative burdens, where possible.

2.2 Insurance

The insurance sector is regulated by a comprehensive EU prudential framework similar to the framework applicable to banks but with some notable differences due to key structural differences in their funding structures and business models. Compared to the banking sector, the

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[39] Framework | Central Bank of Ireland.

[40] Liability Driven Investment (LDI) Funds | Central Bank of Ireland and CSSF communication on GBP Liability Driven Investment Funds consultation – CSSF.

[41] Guidelines on liquidity stress testing in UCITS and AIFs (europa.eu).

[42] According to Article 28 of MMFR, those stress tests shall cover hypothetical changes in asset liquidity, credit risk, interest rates, exchange rates, redemption levels, spreads among relevant indices, and macro systemic shocks affecting the broader economy. To support the process, ESMA produced MMF-specific guidelines on the parameters and methodology for simulating impacts of asset sales under stress market conditions. See ESMA updates the parameters and methodology for MMF stress testing

[43] As part of ESMA's responsibility in the possibility to run EU-wide stress tests, Article. 21(2), ESMA Regulation.

risk stemming from financial leverage is rather minor in the insurance sector.[44] The main liability of insurance firms consists of technical provisions, which are considered stable funding and are less prone to a sudden withdrawal than bank debt (as in the case of bank runs). Insurance companies are instead more exposed to the risk stemming from synthetic leverage, via derivative exposures, to manage their long-term liabilities.

These exposures are managed under the Prudent Person Principle of Solvency II,[45] insofar as they contribute to a reduction of risks or facilitate efficient portfolio management.[46] Furthermore, Solvency II requires regular reports to supervisory authorities of derivative positions, which are part of the broader information disclosure taking place under the Solvency and Financial Condition Report.[47] Liquidity risks for insurance companies are identified, monitored and addressed under the Own Risk and Solvency Assessment (ORSA).

The recently agreed Solvency II review introduces for the first time a macroprudential toolkit for the insurance sector in the EU, which includes a couple of amendments as regards liquidity risks. In particular, supervisory authorities will have the possibility, in exceptional situations and as a last resort measure, to impose on individual companies, or the entire market, temporary freezes on redemption options on life insurance policies. Supervisors will also be granted with the powers to restrict capital distributions in exceptional circumstances, such as dividend payments, to preserve insurers' liquidity and capital positions in stressed conditions. Moreover, insurers will have to develop liquidity risk management plans (LRMP) to explain how they intend to maintain adequate liquidity to settle their financial obligations even under stressed conditions. Lastly, a framework for the recovery and resolution of insurance and reinsurance undertakings was recently agreed by co-legislators, which would ensure more coordination and better tools to manage systemic crises in this sector.[48]

2.3 Other NBFIs and markets

Regarding pension funds, Member States should ensure that NCAs duly consider the potential impact of pension funds' operations on the stability of the financial system in the EU, in particular in emergency situations.[49] For large investment firms, capital coefficients for cash and

[44] According to EIOPA, since 2007, debt funding does not represent more than 8% of an insurer's capital base. Please see EIOPA's second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation - European Union (europa.eu).

[45] Article 132, 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) (recast) OJ L 335, 17.12.2009, p. 1–155.

[46] Article 6(1)(g) and (h) and Article 10(e) and (f) of Commission Implementing Regulation (EU) 2015/2450 of 2 December 2015 laying down implementing technical standards with regard to the templates for the submission of information to the supervisory authorities according to Directive 2009/138/EC of the European Parliament and of the Council (Text with EEA relevance) OJ L 347, 31/12/2015, p. 1–1223.

[47] Article 51, 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*) (recast) (Text with EEA relevance) OJ L 335, 17/12/2009, p. 1–155.

[48] See the compromise text on the recovery and resolution of insurance and reinsurance undertakings Directive resulting from political agreement in interinstitutional negotiations in January 2024.

[49] Article 47, Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs), OJ L 354, 23.12.2016, p. 37–85.

derivative trading flows can be adjusted by NCAs if they 'seem overly restrictive and detrimental to financial stability'.[50]

On markets, there are several measures that have been introduced over recent years. Among those, there are post global financial crisis measures, such as the central clearing obligation for over-the-counter derivatives,[51] and requirements to limit procyclical effects in collateral haircut calculations for margins.[52] ESMA, EBA and NCAs have the power to prohibit or restrict marketing of a financial instrument or a financial activity to protect financial stability.[53] Finally, rules for the securitisation market have introduced macroprudential oversight by the ESRB.[54] For a preliminary list of macroprudential tools for NBFI, please see the annex.

3. Unmitigated liquidity mismatches and liquidity risks

This section aims at gathering data and information on potential unmitigated liquidity mismatches and tools to mitigate systemic risks in MMFs, OEFs and other NBFI sectors.

3.1 Money Market Funds (MMFs)

In the past two years, the Commission has conducted a comprehensive assessment of the regulatory framework for MMFs, considering both prudential and economic perspectives.

Drawing upon economic analysis and industry feedback from the 2022 Commission targeted consultation, the July 2023 Commission report[55] concluded that the MMFR safeguards (e.g. liquidity, repo recourse, diversification) are effective and successfully passed the test of liquidity stress experienced by MMFs in March 2020. Additionally, the MMFR imposes detailed reporting and periodic stress testing requirements (to be performed by MMF managers), allowing NCAs to identify potential unmitigated liquidity mismatches. The report also highlights that a large majority of EU MMFs have maintained their levels of liquidity buffers well above the current regulatory minimum. However, the report also identified some vulnerabilities that warrant further attention.

In particular, three potential areas for improvements were identified: (1) evaluating the need to increase the liquidity buffers; (2) decoupling the activation of LMTs from the liquidity buffers for

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[50] Article 15(5), Regulation (EU) 2019/2033 of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014 (Text with EEA relevance) OJ L 314, 5.12.2019, p. 1–63.

[51] Article 4, 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 201, 27.7.2012, p. 1–59.

[52] Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on requirements for central counterparties, OJ L 52, 23.2.2013, p. 41–74.

[53] Articles 40-42, 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 L 173, 12.6.2014, p. 84–148.

[54] Article 31, Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012, OJ L 347, 28.12.2017, p. 35–80

[55] European Commission, July 2023, Report to the European Parliament and the Council on the functioning of Regulation (EU) 2017/1131 on money market funds (the MMF Regulation).

stable Net Asset Value (NAV) MMFs; and (3) enhancing supervision, the stress testing framework, and reporting requirements.

While industry feedback and data have already been collected on the first two areas for improvement, further consultation is needed on the third area. Moreover, we seek views on the current definition of a "money market instrument".

On supervisory powers, we seek feedback on the feasibility to empower NCAs to increase MMF liquidity buffers on an individual or collective basis to mitigate systemic risk and ensure market stability. In this context, ESMA could have a coordination role focusing on systemic risk assessment and ensuring a consistent approach across jurisdictions, especially in a market crisis or when disputes between NCAs arise. This could mirror NCAs' intervention powers on leverage pursuant to Article 25 of AIFMD, which tasks ESMA and the NCAs with assessing whether the leverage employed by an AIFM, or by a group of AIFMs, poses a substantial risk to the stability and integrity of the financial system. Based on these assessments, NCAs have the authority to impose leverage limits on AIFMs to ensure financial stability and to prevent disorderly markets. For more details, see section 6.

On reporting, we are seeking views on potential ways to streamline and improve MMFR reporting to more effectively identify stability risks, while minimising the burden for reporting entities.

On the stress testing framework, we are consulting on potential additional steps to the current common stress testing framework for MMFs, which could include:

– Additional elements on the knowledge of the investor base, particularly on investor concentration;

– Strengthened supervision and remediation action in case liquidity risks are detected. For instance, ESMA, after consulting the ESRB, could assess the effectiveness of corrective measures for liquidity risks, with NCAs providing a report indicating how the risks have been addressed;

– Improved reporting for supervisory purposes (including stress testing), such as timely access to data on portfolio composition and disclosure of underlying data and simulation models to NCAs, while minimising the reporting burden; and

– A Union-wide stress test run, e.g. by ESMA in coordination with the ESRB, at fund and asset management group levels.

On the reverse distribution mechanism,[56] the consultation paper wants to explore whether this mechanism should continue to be banned under EU rules or not.

Another area being explored is the instruments in which MMFs invest in, such as 'short-term assets'[57] and 'money market instruments.'[58] MMFs do not necessarily distinguish between instruments that are traded or not on a regulated venue. Instruments traded on a regulated venue,

[56] This mechanism would involve the redemption and cancellation of a number of units of MMFs to offset the negative yield generated by the fund.

[57] Article 2(1) of Regulation 2017/1131.

[58] Article 3 of Commission Directive 2007/16/EC of 19 March 2007 implementing Council Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) as regards the clarification of certain definitions (Text with EEA relevance), OJ L 79, 20.3.2007, p. 11–19. In particular, this definition includes instruments that have a maturity up to 397 days and are not traded on a regulated venue.

in particular, are subject to greater transparency and organisational requirements for secondary trading and may be potentially more resilient and liquid in case of a systemic event. Moreover, the potential availability of a venue where to match interests to liquidate short-term assets may facilitate liquidity management of MMFs during crises, even if in normal times secondary trading activity remains low.

Questions

Supervisory powers

Question 8. What are pros and cons of giving the competent authority the power to increase liquidity buffer requirements on an individual or collective basis in the event of system-wide financial stability risks? Under which other situation do you believe MMF liquidity buffers should be increased on an individual or collective basis by the competent authority? Please explain.

Question 9. How can ESMA and ESRB ensure coordination and the proper use of this power and what could be their individual roles? Please provide specific examples or scenarios to support your view.

Reporting requirements

Question 10. In view of the new UCITS supervisory reporting obligations and improvements to AIFMD reporting, how could reporting requirements under the MMFR be aligned, simplified and improved to identify stability risks (such as liquidity risks) and to ensure more efficient data sharing?

Stress testing framework

Question 11. Do you believe that the proposed enhancements to the stress testing framework listed above are sufficient to identify and mitigate liquidity risks effectively? If not, what specific elements would you suggest including in the strengthened supervision and remediation actions for detecting liquidity risks?

Question 12. What are the costs and benefits of introducing an EU-wide stress test on MMFs? Should this stress test focus mainly on liquidity risks?

Reverse distribution mechanism

Question 13. What are your views on the EU ban on a reverse distribution mechanism by MMFs?

Question 14. Can you provide insights and data on how the reverse distribution mechanism has impacted in practice the stability and integrity of MMFs?

Liquidity and short-term instruments

Question 15. Should regulatory requirements for MMFs take into account whether the instrument they are investing in is admitted to trading on a trading venue (regulated markets, multilateral trading facilities or organised trading facilities) with some critical level of trading activity? Please explain your answer.

3.2 Other open-ended funds (OEFs)

Liquidity risk in investment funds refers to the possibility that a fund may not be able to meet its financial obligations, such as payments or redemption requests, in accordance with the fund's rules. This risk is more enhanced in OEFs,[59] especially when the OEF's structural liquidity mismatch (i.e. difference between the liquidity of the fund's assets and its liabilities) is not managed using relevant tools (e.g. LMTs and liability management) in light of potential liquidity shocks. Liquidity risks are particularly important for OEFs that are either invested in illiquid assets or offer frequent redemption without adequate LMTs (to deal with a plausible redemption shock), such as sufficient notice period, gate mechanisms and/or liquidity buffers. Liquidity risk can also impact closed-ended funds, particularly in scenarios involving leverage, where significant market fluctuations may require sudden margin calls or deleveraging.

The recent AIFMD/UCITSD review has introduced a harmonised set of LMTs and laid down mandates for ESMA to further guide a uniform use of LMTs by managers across the EU. Those rules, which are adopted at fund level, will have to be operationalised by regulatory technical standards (RTSs) and ESMA guidelines on the characteristics, selection and activation of those LMTs. The expectation is that new provisions will enhance the resilience of all investment funds, including MMFs, when they become applicable in 2026. Furthermore, the AIFMD/UCITSD review includes a new reporting system for AIFs and UCITS, which will include an ESMA RTS on a new reporting template for AIFMs and a novel obligation for UCITS to report on their holdings.

Taking into account these developments, more could be done to improve the ability of macroprudential authorities to identify liquidity stresses in a timely manner or to monitor liquidity risk at systemic level (e.g. through EU-wide stress tests) and about the role of NCAs in the selection of LMTs.

3.2.1 Enhancing the supervisory framework on liquidity risks

As mentioned, investment fund managers are required to periodically conduct stress-testing. Nevertheless, NCAs' monitoring of liquidity risks and their evolution on a broad scale is currently hampered by the lack of accurate metrics. Specifically, metrics for liquidity risks require an accurate assessment of unmitigated liquidity mismatches, i.e. where a liquidity mismatch is not adequately mitigated by specific tools, such as liquidity management tools, to withstand a plausible redemption scenario. Additionally, these metrics depend on the precise calibration of worst-case and stress-case scenarios related to redemptions and margin calls, as well as evaluating the effectiveness of LMTs in mitigating risks.

Liquidity stress test data at fund level can help NCAs to verify whether the LMTs of a fund (or a cohort of funds) or the use of an OEF architecture are or remain appropriate. While ensuring that the activation of the LMT remains full responsibility of the manager, who is the one best placed to trigger it, NCAs should use the collected data and reporting to identify inconsistencies between the liquidity profile (assets/liabilities) of an investment fund and the use of specific LMTs and ask for remedial actions where needed. In addition, to ensure a level playing field and more effective coordination and implementation of macroprudential policies, the NCA or ESMA could have the power to require the asset management company, for financial stability reasons (independent from the appropriateness assessment abovementioned) and where certain conditions are met, to select a specific LMT for a fund or a cohort of funds, even if not previously selected by the manager.

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[59] 'Open-ended funds' (OEFs) in the EU can either take the legal form of UCITS funds (Art. 76, UCITSD) or of alternative investment funds (AIFs) whose shares or units can be redeemed at the request of any shareholder or unitholder, directly or indirectly from the AIF's assets, before the liquidation or wind-down phase begins and according to the AIF fund rule. (Article 1(2) of Regulation (EU) No 694/2014). This definition encompasses different realities, from highly liquid AIFs to AIFs offering infrequent liquidity, often referred to as semi-liquid AIFs.

Questions

Link between liquidity mismatch and liquidity risks

Question 16. How can NCAs better monitor the liquidity profile of OEFs, including redemption frequency and LMTs, in order to detect unmitigated liquidity mismatches during the lifetime of OEFs?

Question 16. [To NCAs/EU bodies] What is the supervisory practice and your experience with monitoring and detecting unmitigated liquidity mismatches during the lifetime of OEFs?

Question 17. What is the data that you find most relevant when monitoring liquidity risks of OEFs?

Question 18. [To NCAs/EU bodies] What supervisory actions do you take when unmitigated liquidity mismatches are detected during the lifetime of an OEF?

Question 19. On the basis of the reporting and stress testing information being collected by competent authorities throughout the life of a fund, how can supervisory powers of competent authorities be enhanced to deal with potential inconsistencies or insufficient calibration between the LMTs selected by the manager for a fund or a cohort of funds and their assets and liabilities liquidity profile? How can NCAs ensure that fund managers make adjustments to LMTs if they are unwilling to act? How could coordination be enhanced at the EU level?

Question 20. [To asset managers] What measures do you find particularly effective to measure and monitor liquidity risk in stressed market conditions?

Question 21. [To asset managers] What difficulties have you encountered in measuring and monitoring liquidity risks and their evolution? Are there enough tools available under the EU regulations to address liquidity mismatches?

Question 22. [To asset managers] What are the challenges in calibrating worst-case and stress-case scenarios related to redemptions and margin calls?

Stress testing

Question 23. [To NCAs and EU bodies] When monitoring or using results of liquidity stress tests, are you able to timely collect underlying fund data used by managers and the methodology used for the simulation? Are there other aspects that you find very relevant when monitoring the stress tests run by managers?

Question 24. [To NCAs and EU bodies] How do you use information collected from stress tests at fund level for other supervisory purposes and for monitoring systemic risks?

Question 25. [To NCAs and EU bodies] What are the main benefits and costs of introducing a stress test requirement at the asset management company level and how could this be organised?

3.3 Other NBFIs and markets

Other NBFIs, such as large commodity traders, and the functioning of large short-term funding markets, are increasingly playing an important role during stress scenarios. March 2020 events also raised flags about the resilience of some money markets, such as commercial paper (CP) and certificate of deposits (CD) markets. Improving their functioning could strengthen their resilience in crisis times.

Commodity derivatives are traded under various strategies by different types of counterparties, including financial and non-financial undertakings which hedge their commercial business (e.g. energy companies) or which contribute to the liquidity of the energy derivative markets. In case of large and unexpected price shocks, liquidity stress can be heightened by corresponding large and unexpected margin calls that traders, such as commodity trading companies, need to be prepared to address.

Another key feature of commodity derivatives is the dual presence of market participants who are active in both the spot/physical market and the futures markets. The respective regulatory and supervisory frameworks differ or are not aligned. The activities of energy traders that are active only or mainly on energy spot markets can also have repercussions on financial markets (energy derivatives). This is notably the case in situations of stressed energy supply or when energy spot market purchases serve as the principal tool for filling storage capacity. In such instances, volatility in spot markets can rapidly spill over into energy derivatives.

Finally, unexpected margin calls can also affect market participants in other derivatives markets. The UK Gilt crisis in September 2022 raised questions about the ability of pension funds to deal with large margin calls, especially when exposed to sizeable derivative exposures (directly or through LDI funds).

Questions

Other NBFIs

Question 26. What are your views on the preparedness of NBFIs operating in the EU in meeting margin calls, and on the ways to improve preparedness, taking into account existing or recently agreed EU measures aimed at addressing this issue? Please specify the NBFI sector(s) you refer to in your answer?

Question 27. What are relevant risk metrics or tools that can be used to effectively monitor liquidity and margin preparedness across all NBFI entity types? Please provide examples specifying the sector you refer to.

Pension Funds

Question 28. How can current reporting by pension funds be improved to improve the supervision of liquidity risks (e.g. stemming from exposure to LDI funds, other funds or derivatives), while minimising the reporting burden? What can be done to ensure effective look-through capability and the ability to measure the impact of unexpected margin calls? Please provide examples also for other NBFI sectors.

Question 29. What would be the benefits and costs of a regular EU-wide liquidity stress test for pension funds and with what frequency? What should be the role of EU authorities in the preparation and execution of such liquidity stress tests?

Short-term funding markets

Question 30. What would be the benefits and costs of creating a framework or a label in EU legislation for certain money market instruments (such as commercial papers) to increase transparency and standardisation? Should the scope of eligible instruments to such framework/label be aligned with Article 3 of Directive 2007/16/EC[60]? If not, please suggest what criteria would you consider for identification of eligible instruments.

Question 31. Would the presence of a wider range of issuers (notably smaller issuers) to fund themselves on this market, and therefore diversify their funding sources, be beneficial or detrimental to financial stability?

Question 32. What are your views on why euro-denominated commercial papers are in large part issued in the 'EUR-CP' commercial paper market outside the EU? What risks do you identify? Please provide quantitative and qualitative evidence, if possible.

Question 33. What could be done to improve the liquidity of secondary markets in commercial papers and certificates of deposits?

Question 34. Considering market practice today, is the maturity threshold for 'money market instruments' (up to 397 days) in the Eligible Asset Directive 2007/16 sufficiently calibrated for these short-term funding markets?

Question 35. Do you think there is a risk with the high concentration of this market in a few investors (MMF and banks)? Please elaborate.

Question 36. How could secondary markets in these money market instruments attract liquidity and a more diverse investor base, while relying less on banks buying back papers they have helped to place?

Question 37. What are the benefits and costs of introducing an obligation to trade on trading venues (regulated markets, multilateral trading facilities and organised trading facilities) for such instruments?

Question 38. Can the possibility to trade on a regulated venue increase the chances of secondary market activities in a systemic event, for instance by acting as a safety valve for funds that need to trade these assets before maturity (especially when facing strong redemption pressures, like for MMFs)?

Commodities markets

Question 39. How would you assess the level of preparedness of commodity derivatives market participants in terms of meeting short-term liquidity needs or requests for collateral to meet margins? Please rank from 1 to 5 (lowest to highest) the level of preparedness for the following participants by sector: insurance companies, UCITS funds, AIFs, commercial undertakings, investment firms, pension funds.

Question 40. In light of the potential risk of contagion from spot markets or off-exchange energy trading to futures markets, do you think that spot market participants should also meet a more comprehensive set of trading rules for market participation and risk management? Please elaborate on your response.

Question 41. How can it be ensured that the functioning of underlying spot energy markets

[60] Commission Directive 2007/16/EC of 19 March 2007 implementing Council Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) as regards the clarification of certain definitions, OJ L 79, 20.3.2007.

and off-exchange energy trading activity does not lead to the transmission of risks to financial markets?

Other markets

Question 42. To what extent do you see emerging liquidity risks or market functioning issues that can affect liquidity in other markets? Can you provide concrete examples?

4 EXCESSIVE LEVERAGE

Excessive leverage is a significant vulnerability because it can act as a (hidden) risk amplifier (through position liquidation and counterparty channel) of several risks, such as liquidity, counterparty and concentration risks. While financial leverage is generally reported and visible by most NBFIs, detecting synthetic leverage via derivatives positions in some instances (such as through the use of other legal vehicles) can be very difficult. Nonetheless, derivatives are key for the provision of financial products by several NBFIs, such as insurance companies and pension funds, in particular those offering products driven by long-term guaranteed liabilities (e.g. some life insurance products or defined benefit pension plans).

There are some tools to deal with leverage, such as leverage limits (like the one used under Art. 25 AIFMD) or restrictions targeting the use of specific leveraged products.

4.1 Open-ended funds (OEFs)

Both UCITSD and AIFMD have requirements that restrict the use of leverage. The AIFMD (Art. 25) gives the possibility to NCAs to introduce leverage limits or other restrictions to leverage (such as yield buffers) for an individual fund or groups of funds. To date, two authorities have made use of the Article 25 in AIFMD to impose leverage limits by means of a yield buffer to GDP-denominated LDI funds (see introduction). Furthermore, the recent AIFMD review has introduced a structural (absolute) limit on leverage for loan-originating funds that will be applicable from 2026. In addition, competent authorities have been granted powers to introduce leverage limits for specific alternative investment funds (AIFs) under AIFMD Article 25.

In order to identify pockets of synthetic leverage, AIFMD and EMIR have introduced reporting requirements at fund and transaction level respectively, which should allow for a comprehensive view of synthetic leverage. Investment funds and their management companies also interact with other NBFIs and banks, and they are large players in global funding markets. There should be better understanding on what is the ability to detect leverage when using complex investment strategies involving, for instance, synthetic leverage via investment in other funds.

Questions

Question 43. What are other tools than those currently available under EU legislation which could be used to contain systemic risks generated by potential pockets of excessive leverage in OEFs?

Question 44. What are, in your view, the benefits and costs of using yield buffers[61] for Liability-Driven funds, such as it was done in Ireland and Luxembourg, to address leverage?

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[61] "The yield buffer is defined as the level of increase in yields that a fund can withstand before its net asset value (NAV) turns negative." See, The Central Bank's macroprudential policy framework for Irish-authorised GBP-denominated LDI funds, p. 3.

Question 45. While on average EU OEFs are not highly leveraged, are there, to your knowledge, pockets of excessive leverage in the OEF sector that are not sufficiently addressed? Please elaborate with concrete examples.

Question 46. How can leverage through certain investment strategies (e.g. when funds invest in other funds based in third countries) be better detected?

4.2 Other NBFIs and markets

Leverage of other NBFIs can also create issues if not properly monitored and eventually managed. Reporting mechanisms play a key role to identify pockets of leverage and reconcile with ultimate beneficiaries, as well as to understand the interconnections, also in terms of counterparty risk management. While there is already transaction-level (e.g. EMIR and MiFIR) and entity-level reporting (e.g. Solvency II), the question is whether reporting can be improved in order to provide entities and supervisors involved with a timely picture of leverage to act upon, while minimising reporting burden. The role of highly concentrated intraday positions in derivatives markets, in a general context of low market liquidity (such as the 2022 energy crisis), in amplifying the effects of leverage (taken through the contractual terms of the derivative instrument) on market liquidity and volatility should be further explored.

Questions

Question 47. Are you aware of any NBFI sector entities with particularly high leverage in the EU that could raise systemic risk concerns?

Question 48. Do stakeholders have views on macroprudential tools to deal with leverage of NBFIs that are not currently included in EU legislation?

Question 49. [To NCAs and EU bodies:] Are you able to timely identify (financial and synthetic) leverage pockets of other NBFIs (such as pension funds, insurance companies and so on), especially when they are taken via third parties or complex derivative transactions? Please elaborate on how this timely detection of leverage could be obtained?

Question 50. How can it be ensured that competent authorities can effectively reconcile positions in leveraged products (such as derivatives) taken via various legal entities (e.g. other funds or funds of funds) to the ultimate beneficiary?

Commodities markets

Question 51. What role do concentrated intraday positions have in triggering high volatility and heightening risks of liquidity dry-ups? Please justify your response and suggest how the regulatory framework and the functioning of these markets could be further improved?

5 MONITORING INTERCONNECTEDNESS

While there are significant synergies in the interaction between various sectors of the financial system (with positive spillover effects on financial stability through more private risk sharing), more work is needed to identify and understand vulnerabilities stemming from (hidden) links between different NBFIs, and between banks and NBFIs, including in relation to risk of amplification and herding behaviours embedded in large portfolio overlaps.[62] This could be

[62] Large and systematic portfolio overlaps among banks and non-banks can lead to co-movement in prices and even fire sales of assets when entities react in the same way during a systemic event. Moreover, portfolio overlaps are

achieved through, for example, the conduct of an EU-wide stress tests across NBFI sectors and between NBFIs and banks. Other jurisdictions have also been cognisant of the risks that interconnection may bear to financial stability in certain cases and are trying to get a better understanding of related vulnerabilities with system-wide stress tests. For instance, the UK has recently launched the idea of a System-Wide Exploratory Scenario (SWES), which aims to improve understanding of how banks and NBFIs react to stressed financial market conditions and how those behaviours amplify shocks in financial markets and instability.[63]

In the EU, a system-wide EU stress test could simulate the impact of different scenarios on various NBFI sectors: funds, asset management companies, insurance, pension funds, large investment firms and key market infrastructures. The stress test could be done on a periodic basis (e.g. annually) and possibly use also stress test data on banks regularly run by EBA to simulate stress scenarios across all the sectors of the financial system. The stress test could include the impact of margin calls based on existing methodologies, in particular those of the EU CCP supervisory stress test conducted by ESMA. Moreover, the recent EMIR review introduced the Joint Monitoring Mechanism (JMM), which is, among other things, tasked with contributing to the development of Union-wide stress tests for the resilience of CCPs.[64] A broader EU-wide stress test could be based on a similar model, while exploring a greater role for horizontal bodies, such as the Joint Committee of the ESAs, as the stress test would cut across all NBFI sectors. The ESRB could provide support on defining methodologies and stress scenarios, as it currently does for OEFs. The ESAs could be also in charge of data collection from NCAs. This exercise could follow some governance principles already laid out in existing system-wide exercises in the EU, such as the one-off Fit-for-55 climate risk scenario analysis.[65]

Questions

Question 52. Do you have concrete examples of links between banks and NBFIs, or between different NBFI sectors that could pose a risk to the financial system?

Question 53. What are the benefits and costs of a regular EU system-wide stress test across NBFI and banking sectors? Are current reporting and data sharing arrangements sufficient to

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not generally visible, unless data is cross-checked between sectors to estimate the influence that indirect exposures can have on systemic risk.

[63] There are just over 50 participants in the SWES – including banks, insurers, central counterparties, funds managed by asset managers, hedge funds, and pension funds. The Bank of England works closely with the Financial Conduct Authority, the Pensions Regulator, and other domestic and international regulators on the SWES. See System-wide exploratory scenario | Bank of England

[64] The JMM comprises representatives from ESMA, EBA, EIOPA, ESRB, ECB, SSM and central banks of issue other than the Euro and is chaired by ESMA. Amongst its tasks are monitoring of compliance with the active account requirement; monitoring of the cross-border implications of client clearing relationships, including interdependencies and interactions with other financial market infrastructures; contributing to the development of Union-wide assessments of the resilience of CCPs focussing on liquidity, credit and operational risks concerning CCPs, clearing members and clients; identification of concentration risks, in particular in client clearing. In order to perform its tasks, the JMM can request information from NCAs and financial market participants, where the NCA so agrees.

[65] The one-off fit-for-55 climate risk scenario analysis aims to assess the resilience of the financial sector in line with the Fit-for-55 package, and to gain insights into the capacity of the financial system to support the transition to a lower carbon economy under conditions of stress. The one-off exercise is part of the new mandates received by the EBA in the scope of the European Commission's Renewed Sustainable Finance Strategy. Given its cross-sectoral and system-wide, this exercise is conducted with the collaboration and coordination of the other European Supervisory Authorities (ESAs), the European Central Bank (ECB), and the European Systemic Risk Board (ESRB). One-off Fit-for-55 climate risk scenario analysis | European Banking Authority (europa.eu).

perform this task? Would it be possible to combine available NBFI data with banking data? If so, how?

Question 54. Is there a need for arrangements between NBFI supervisors and bank supervisors to ensure timely and comprehensive sharing of data for the conduct of an EU-wide financial system stress tests? Please elaborate.

Question 55. What governance principles already laid out in existing system-wide exercises in the EU, such as the one-off Fit-for-55 climate risk scenario analysis or the CCP stress tests conducted by ESMA, could be adopted in such system-wide stress test scenario?

Question 56. [To NBFIs and banks] In your risk management practices, do you run stress tests at group level, and do you monitor the level of interconnectedness with (other) NBFIs (within and beyond your own sector; e.g. portfolio overlaps)?

6 SUPERVISORY COORDINATION AND CONSISTENCY AT EU LEVEL

A consistent application of macroprudential tools and sufficient coordination among supervisors within the EU, as well as with supervisors in third countries, are key to effective macroprudential policies. Insufficient coordination may lead to instability, driven by fragmentation among national jurisdictions and regulatory arbitrage between NBFI sectors. This raises important questions on how to ensure effective coordination among Member States, especially during systemic events affecting more than one Member State, while ensuring autonomy to competent authorities. Sharing data among authorities in charge of macroprudential supervision under the current reporting frameworks is also key, as well as monitoring links with unregulated entities (e.g. family offices, supply chain or real estate finance companies). For instance, supervisory coordination could include more timely use of macroprudential tools to reduce the level of exposure or the excessive leverage.

6.1 Open-ended funds (OEFs)

Considering that asset managers operate in multiple countries, often by passporting the same fund or creating funds with similar characteristics in different EU Member States, coordination in the supervisory action and in the use of micro and macroprudential tools is key.

ESMA, together with the ESRB, receive information about NCAs' actions under its remit to monitor, assess and measure systemic risk. For instance, during the COVID-19 crisis, ESMA held bi-weekly meetings and received data voluntarily shared by NCAs to monitor the suspensions, availability, and activation of LMTs, including sharing information on cases with cross-border elements.

Moreover, coordination is crucial for the application of macroprudential tools during crises to prevent additional spillover effects across multiple markets. However, this coordination, engagement with stakeholders and use of macroprudential tools should be agile and of high quality, as fund managers may be fully occupied during times of crisis with managing liquidity under redemption pressures.

6.1.1 An enhanced coordination mechanism (ECM) for adoption of macroprudential measures and conflict resolution

Building on the mechanism provided for by Article 25 AIFMD for limits on leverage, an Enhanced Coordination Mechanism (ECM) could be created for the adoption of a list of national macroprudential measures (NMMs) that are applicable to all OEFs or a subset of them. While

NCAs could remain responsible for their adoption,[66] they would need to obtain beforehand the opinion of ESMA (after consulting the ESRB) and explain any deviation therefrom. This ESMA opinion could also be addressed to NCAs of other Member States, if the measure would be relevant for more than one Member State. Moreover, ESMA, after consulting the ESRB, could also be given the power to initiate an opinion to a single or multiple NCAs in one or more Member States in relation to the adoption or lack of adoption of a given NMM.

On implementation and conflict resolution in relation to a given macroprudential measure, a better coordination system could include a mechanism whereby the host NCA (on the ground of financial stability risks in a given EU Member State) or ESMA (where financial stability risks may arise for a large number of Member States), after consulting the ESRB, could initiate a procedure to request the home NCA to rectify a potentially inadequate, or introduce a missing macroprudential measure.[67] ESMA, after consulting the ESRB, could issue an opinion in case the home NCA does not act satisfactorily.

6.1.2 Supervisory coordination powers for large asset management companies

ESMA could be given specific coordination powers over large asset management companies, with the day-to-day support and supervision left to NCAs under ESMA guidance. In particular, ESMA could be given enhanced coordination role over the supervision conducted by competent authorities (similar to the ESMA CCP Supervisory Committee model).[68] This means that NCAs would remain responsible for the supervision of investment funds authorised in their jurisdiction. However, amongst others, they would need to obtain the opinion of ESMA prior to the adoption of certain decisions and explain any deviation therefrom. ESMA, among other, would be competent to initiate and coordinate Union-wide stress tests, to initiate and conduct peer review analyses of NCAs.

Questions

Question 57. How can we ensure a more coordinated and effective macroprudential supervision of NBFIs and markets? How could the role of EU bodies (including ESAs, ESRB, ESAs Joint Committee) be enhanced, if at all? Please explain.

Enhanced coordination mechanism (implementation and adoption of NMMs)

Question 58. How could the currently available coordination mechanisms for the implementation of macroprudential measures for OEFs by NCAs or ESAs (such as leverage restrictions or powers to suspend redemption on financial stability grounds) be improved?

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[66] This list could include the power to suspend redemption rights, additional liquidity buffers for MMFs, leverage restrictions and so on.

[67] A similar mechanism like this exists today, under Article 50 AIFMD, but it is limited to the power to suspend redemption rights.

[68] EMIR 2.2 established the CCP Supervisory Committee within ESMA to prepare draft decisions for adoption by the Board of Supervisors, where ESMA is required to take a decision in relation to EU and third-country CCPs. It is composed of the Chair and the two independent members of the CCP Supervisory Committee, NCAs that supervise CCPs (i.e. not from all Member States) and central banks of issue (the latter non-voting). The supervision of EU CCPs remains with the national supervisors. However, NCAs need to submit their draft decisions (e.g. on authorisation) for an opinion to ESMA, and explain any deviation therefrom. ESMA conducts peer reviews, can initiate and coordinate Union-wide stress tests, etc.

Question 59. What are the benefits and costs of introducing an Enhanced Coordination Mechanism (ECM), as described above, for macroprudential measures adopted by NCAs?

Question 60. How can ESMA and the ESRB ensure that appropriate National Macroprudential Measures (NMMs) are also adopted in other relevant EU countries for the same (or similar) fund, if needed?

Question 61. Are there other ways of seeking coordination on macroprudential measures and possibly of reciprocation? What could this system look like? Please provide concrete examples/scenarios and explain if it could apply to all NBFI sectors or only for a specific one.

Supervisory powers of EU bodies

Question 62. What are the benefits and costs of improving supervisory coordination over large (to be defined) asset management companies to address systemic risk and coordination issues among national supervisors? What could be ESMA's role in ensuring coordination and guidance, including with daily supervision at fund level?

Question 63. What powers would be necessary for EU bodies to properly supervise large asset management companies in terms of flexibility and ability to react fast? Please provide concrete examples and justifications.

Question 64. What are the benefits and costs of having targeted coordinated direct intervention powers to manage a crisis of large asset management companies? What could such intervention powers look like (e.g. similar to those in Article 24 of EMIR)?

6.2 Other NBFIs and markets

Fostering coordination among EU authorities (ESRB, ESMA, EIOPA and EBA, as well as ECB and the Single Supervisory Mechanism) and between EU authorities and national macroprudential authorities in macroprudential oversight is important due to the complexity of NBFIs and the markets in which they operate, as well as the involvement of multiple supervisors across sectors. More coordination may imply mechanisms to coordinate and provide guidance for the adoption and implementation of macroprudential measures, but also executing and overseeing stress tests, and guiding national macroprudential authorities in data collection. The mechanism could be designed as the enhanced coordination mechanism (ECM) described in section 6.1 (for insurance and pension funds that mechanism could be managed by EIOPA). Alternatively, NMMs could be also subject to an ex-ante objection procedure by the European Commission, based on the opinions of the ESRB and ESMA/EIOPA.

In commodities markets, moreover, there is the additional complexity due to the interlinkages between spot and derivatives markets. This consultation paper wants to explore whether a more integrated system of supervision that is able to supervise both physical and financial infrastructure of the commodity futures exchange is needed. For instance, the delivery rules of commodities exchanges are key for physical-futures price convergence of benchmark front-month forward contract prices (and so for the price of futures contracts) in a large number of (storable) commodities markets.

Questions

Question 65. What are the pros and cons of extending the use of the Enhanced Coordination Mechanism (ECM) described under section 6.1 to other NBFI sectors?

ESAs and ESRB's powers during emergency situations

Question 66. What are the benefits and costs of gradually giving ESAs greater intervention powers to be triggered by systemic events, such as the possibility to introduce EU-wide trade halts or direct power to collect data from regulated entities? Please justify your answer and provide examples of powers that could be given to the ESAs during a systemic crisis.

Integrated supervision for commodities markets

Question 67. What are the benefits and costs of a more integrated system of supervision for commodities markets where the financial markets supervisor bears responsibility for both the financial and physical infrastructure of the commodity futures exchange, including the system of rules and contractual terms of the exchange that regulate both futures and (cash/physical) forward contracts?

International coordination

Question 68. Are there elements of the FSB programme on NBFI that should be prioritised in the EU? Please provide examples.

ANNEX - OVERVIEW OF TOOLS FOR NBFI WITH A MACROPRUDENTIAL FUNCTION IN EU LEGISLATION

Legislation	Entity	Tools (with 'pre-emptive' or 'ex-post' activation)	Key flanking measures (e.g. relevant microprudential tools, reporting)
European Supervisory Authorities (ESAs) founding regulations **Regulation (EU) No 1092-1093-1094-1095/2010**	EU agencies (ESRB, ESMA, EBA, EIOPA)	- Initiation and coordination of **EU wide stress test** (Art. 21(2)(b), ESAs regulations) - Identification, monitoring and "permanent capacity to **respond to systemic risks**" (Art 22 to 24 of ESAs regulations).	ESAs college of supervisors to ensure risk detection and coherent approach (Art. 2, 21(2) and 22 of ESAs regulations) Role of the ESAs (Art. 1(5), ESAs regulations)
Alternative Investment Fund Managers Directive (AIFMD) Directive 2011/61/EU	Alternative investment fund managers and funds	- AIFM needs to set **'reasonable' limits on max leverage for AIFs**, plus **disclosure of leverage to NCAs** if leverage employed 'on substantial basis' (pre-emptive measure; art. 15.4, 24.4 and 25.3, AIFMD) - **If AIF leverage generates 'substantial risk'**, ESMA can issue advice to NCAs (pre-emptive measure; art. 25.7, AIFMD) - Additional **leverage limits for AIFs** can be applied by NCAs (pre-emptive measure; art. 25.3, AIFMD) - **Suspension of redemption rights** by NCAs based on financial stability risks (ex-post measure; forthcoming in AIFMD/UCITS review) - **Leverage limits for loan originating funds** (pre-emptive measure, forthcoming in AIFMD/UCITS review)	Microprudential tools, such as concentration ratios, liquidity management tools, etc. Liquidity management tools may become macroprudential tools when adopted for categories of funds, based on a systemic risk assessment. Disclosure on intended use of leverage upon AIFM registration (Article 7 AIFMD) Reporting requirements on leverage under Article 24(4) AIFMD Elements that competent authorities should consider for assessing whether the use of leverage contributes to the build-up of systemic risk (ESMA guidelines Article 25 (1) and (3)).
Undertakings for Collective Investment in Transferable Securities Directive (UCITS) Directive 2009/65/EC	Undertakings for collective investment in transferable securities	**- Suspension of redemption rights by NCAs based on financial stability risks** (e.g. if the manager does not effectively implement selected LMTs in light of systemic risk; ex-post measure; *forthcoming in AIFMD/UCITS review)* **- UCITS leverage limit**: UCITS fund exposure may not exceed 100 % of the UCITS' NAV (pre-emptive measure; Commission Recommendation 2004/383/EC of 27 April 2004)*)*	Microprudential tools, such as portfolio composition/maturity, concentration ratios, liquidity management tools, etc.
Money Market Fund Regulation (MMFR)	Money market fund managers and funds	**- Suspension of redemption rights by NCAs based on financial stability risks** and under specific conditions for MMFs (e.g. if the manager does not	Microprudential tools, such as portfolio composition/maturity [art. 9 and 24], concentration

Regulation (EU) 2017/1131		effectively implement selected LMTs in light of systemic risk; ex-post measure *forthcoming in AIFMD/UCITS review*) **- Stress testing to macro shocks** (pre-emptive measure; art. 28) **- Structural limits on leverage** (pre-emptive measure; such as no borrowing/lending money, derivatives trading only for hedging and short sale ban; art. 9 and 13) **- Structural liquidity buffers** (pre-emptive measure; art. 24-25)	ratios [art. 18], other liquidity management tools managed at fund level, etc.
European Market Infrastructure Regulation (EMIR) Regulation (EU) No 648/2012	Central counterparties and trade repositories	- **OTC derivative clearing obligation** (pre-emptive measure; art. 4 EMIR) - **Suspension of clearing obligation** based on financial stability threats (ex-post measure; art. 6a EMIR) - **Anti-procyclicality measures** for margins to limit procyclical effects, including margin buffers, haircuts calculation, lookback periods, weight of stressed observations in margin models (pre-emptive measures; Commission Delegated Regulation 153/2013) - **Active account requirement,** i.e. to hold a so-called active account at a Union CCP for clearing certain types of derivatives to decrease reliance on third-country clearing services for financial stability reasons and to perform specific stress test for those accounts (pre-emptive measures; EMIR 3 review)	The **OTC derivative clearing obligation** (art. 4 EMIR) was introduced to ensure better protection from counterparty credit risk in derivatives markets and reduce the systemic effects for financial stability of such risks. Another important flanking measure to macroprudential policies for both banks and NBFIs is the **reporting mechanism for OTC derivatives** (Art. 9, EMIR) (ex. Archegos), which allows authorities to see derivatives transactions details and assess potential systemic risk build-up in the system . ESMA power to designate **systemically important third-country CCPs** (article 25(2a), EMIR) could be also considered a flanking measure. **Emergency situation warnings** by the CCP's competent authority to ESMA (ex post measure; Art. 24 EMIR) **Risk mitigation requirements** (including the exchange of margin) for non-centrally cleared derivatives (Art. 11 EMIR) Capital (Art. 16 EMIR), participation (Art. 37 EMIR), margin (Art. 41 EMIR), collateral (Art. 46 EMIR), and investment policy (Art. 48 EMIR) **requirements for CCPs**, among others. Other flanking measures (**organisational requirements**) were introduced with the recent EMIR 3 review, such as stress testing requirements for so-called active accounts; a new validation

			function for commonly used initial margin models for noncleared derivatives; disallowing a CCP from acting as a clearing member at another CCP; and a requirement for member states to designate an authority responsible for ensuring that non-financial counterparties comply with the Regulation.
Investment Firm Regulation & Directive (IFR&IFD) Directive (EU) 2019/2034 Regulation (EU) 2019/2033	(non-bank) Investment firms	**- K-DTF coefficients adjustments (for cash and derivatives trades)** in stressed market conditions (ex post measure; art. 15(5c), IFR)	**NCAs' warnings** to EBA and ESRB in emergency situations (art. 47 IFD)
Directive on the activities and supervision of institutions for occupational retirement provision (IORPs) Directive (EU) 2016/2341	IORP - Pension funds	None	Member States shall ensure that the competent authorities duly consider the potential impact of their actions on the stability of the financial systems in the Union, in particular in emergency situations. (art. 47 IORPs)
E-Money Directive (EMD2) Directive 2009/110/EC	Electronic money institutions	None	
Solvency II Directive Directive 2009/138/EC	Insurance and reinsurance undertakings (life and non-life)	- Activities and supervisory decisions shall reflect **macro-prudential considerations** (pre-emptive measure; Art. 28, 45 and 132) - Set-up of **liquidity risk-management plans** (pre-emptive measure; Art. 144a; *forthcoming in Solvency II review*) - Power to national supervisors to temporarily **suspend redemption rights** of policyholders on life insurance (ex post measure; Art. 144b; *forthcoming in Solvency II review*) - Restriction or suspension of **capital distributions and variable remunerations** on vulnerable companies (ex-post measure; Art. 144c; *forthcoming in Solvency II review*)	Reporting requirements under Solvency and financial condition reporting (SFCR) and regular supervisory reporting (RSR) for insurance and reinsurance companies (art. 51 and 35 Solvency II; art. 290-298 and art. 304-311 Delegated Regulation) **Comment** The identified macroprudential tools are applicable to all insurance businesses, except for 144b, which has a particular focus on life insurance.
Securitisation (STS) Regulation	Financial vehicle corporations	**- Macroprudential oversight** (pre-emptive measure; art. 31).	**Comment** ESRB is mandated to continuously monitor

Regulation (EU) 2017/2402	engaged in Securitisation		developments in the securitisation markets. Where the ESRB considers it necessary, and at least every three years, the ESRB shall produce a report on the financial stability implications of the securitisation market in order to highlight financial stability risks. The ESRB can provide warnings and, where appropriate, issue recommendations for remedial action in response to any identified risks, including on the appropriateness of modifying the risk-retention levels, or other macroprudential measures. Three groups of indicators that are important from a macroprudential perspective were identified: (i) broad market indicators, (ii) leverage indicators, and (iii) interconnectedness and concentration indicators.
Markets in Financial Instruments Directive (MiFID 2)/Markets in Financial Instruments Regulation (MiFIR) Directive 2014/65/EU (MiFID 2) Regulation (EU) No 600/2014 (MiFIR)	Investment firms and trading venues	- **ESMA, EBA and National Competent Authorities' power** to prohibit or restrict marketing of a financial instrument or a financial activity to protect financial stability (pre-emptive and ex post measure; art. 40-42 MiFIR) - NCAs supervisory powers in case of lack of **triggering of circuit breakers** by trading venues (ex post measure; Article 69 of MiFID II). - **ESMA's power on position management** in commodity derivatives for financial stability purposes (ex-post measure; art. 45(2)(a) MiFIR) - Exemption to the obligation to provide **non-discriminatory access to a CCP and trading venue** if it affects systemic risk (pre-emptive measure; art. 35-36, MiFIR) - **Derivatives Trading Obligation** to foster standardisation of derivatives (pre-emptive measure; MiFIR Art. 28 and 32 + Level 2)	MiFID II/ MiFIR post-trade transparency reporting (Articles 3-11 and 14-21 of MiFIR) Position limit regime under Article 57(1) of MiFID II for critical or significant commodity derivatives Notification by regulated markets to competent authorities of trading halts to allow the possibility of a broader market-wide response in stressed market conditions (art. 48(5), MiIFD 2) **Comment** Derivatives Trading Obligation (DTO): ESMA publishes on its website a register of the classes of derivatives subject to the DTO (currently IT and CDS) only classes of derivatives subject to the EMIR Clearing Obligation can be included in the scope of the DTO.
Short selling regulation (SSR) Regulation (EU) No 236/2012	Trading venues and (natural/legal) persons engaging in	**- Notification and public disclosure of net short positions** in exceptional circumstances by PESS and security lenders if required by NCAs (pre-emptive measure; art. 18 SSR)	Information disclosure from NCAs to ESMA in case of developments/events that constitute a threat to financial stability (art. 11, SSR)

	short selling (PESS)	- **NCAs may restrict or prohibit PESS from engaging in short sale transactions or equivalent transactions**, as well as transactions in sovereign credit default swaps, in case of events that constitute a serious threat to financial stability in the Member State (ex post measure; art. 20, 21 SSR). - A similar power **to impose disclosure or to prohibit/restrict short selling transactions** is conferred to ESMA in case of serious threats to the financial stability of the Union (ex post measure; art. 28. SSR)	Transparency of Net Short Positions (Art 5-9 SSR) Exemption where the principal trading venue is in a third country (Article 16) Exemption for market making activities and primary market operations (Article 17). **Comment** Long term bans were imposed in several EU jurisdictions in the context of Covid related volatility in spring 2020
Securities Financing Transaction Regulation (SFTR) Regulation (EU) 2015/2365	Entities engaging in securities financing transactions	- Requirements on **the reuse of collateral** (Art. 15 SFTR) and the ability to impose sanctions in case of violation (Art. 22 SFTR).	**Comprehensive reporting framework for securities financing transactions (SFTs),** as agreed at the international level (art. 4 SFTR) Ability to impose sanctions in case of violation of requirements related to **transparency towards investors** (Art. 28 SFTR) **Comment** SFTs tend to create complex collateral chains between traditional banking and shadow banking, giving rise to financial stability risks. The transparency promoted by this framework supports risk monitoring.
Markets in Crypto Assets Regulation (MiCAR) Regulation (EU) 2023/1114	Crypto Asset Service Providers, Crypto exchanges	- **Refusal of authorisation for an issuer of e-money tokens or asset-referenced tokens and possibility to impose corrective measures** on grounds of the business model being a risk to financial stability (pre-emptive measure; art. 21 and 25(4)(b), MiCAR) - **Designation as 'significant' for e-money and asset-referenced tokens** implies application of additional requirements for issuers/tokens due to their potential impact on financial stability (pre-emptive measure; art. 43-45, 56-58, MiCAR).	

		- enhanced supervisory coordination in relation to significant crypto asset service providers (Art 85) - **ESMA, EBA and National Competent Authorities' power** to prohibit or restrict marketing of a financial instrument or a financial activity to protect financial stability (pre-emptive and ex post measure; art. 103-105)	
Capital Requirements Regulation (CRR) / Capital Requirements Directive (CRD) Regulation (EU) No 575/2013 Directive 2013/36/EU **Delegated Regulation (EU) 2023/2779** Delegated act details - Register of delegated acts (europa.eu) **EBA Guidelines**	Credit Institutions	None	Reporting requirements in relation to institutions' exposures to shadow banking entities on both individual (ten largest) and aggregate basis (total). Disclosure of the aggregate exposure to shadow banking entities. Criteria for the identification of shadow banking entities for prudential purposes. Principle-based approaches to set internal limits to institutions' exposures toshadow banking entities

Note: *These entities might at the same time also hold a banking licence. The table is based on the definition of macroprudential tool set out in Section 1.