JOINT COMMITTEE OF THE EUROPEAN SUPERVISORY AUTHORITIES

JC 2023 07

JOINT COMMITTEE REPORT ON

RISKS AND VULNERABILITIES IN THE EU FINANCIAL SYSTEM

MARCH 2023

EXECUTIVE SUMMARY AND POLICY ACTIONS

In the second half of 2022 EU financial markets have remained stable amid a difficult macro-financial environment. The macroeconomic environment continued to deteriorate in H2 2022 in a context of high inflation, high commodity prices and tighter financial conditions. The economic environment remains uncertain, though recent growth forecasts have become more positive and a deep recession is no longer expected. High inflation is expected to decline in 2023, though with some heterogeneity across countries, but will probably remain elevated for a longer period than initially projected. Financial asset prices have been volatile in H2 2022 and market liquidity has, at times, been strained. Sharp asset price movements have also triggered unexpectedly large margin calls for some market participants (e.g. as seen in energy derivatives markets in summer 2022), notably non-financial corporations and non-bank financial institutions, testing their preparedness in terms of liquidity. Overall, high uncertainty and fragile market liquidity are limiting the resilience of the financial system against further external shocks. Political uncertainty is still elevated at global and regional levels and continues to pose risks for financial institutions. Cybersecurity remains another area to monitor and address, with an unabatedly high number of sophisticated cyberattacks and the continuing Russian war in Ukraine. The warmest summer on record in Europe was another reminder of the need to monitor ESG risks. Finally, the failures of a few medium-sized US banks in March 2023 brought market pressure on banks globally and general tension in other global financial markets (see box in market developments section).

Considering the above risks and uncertainties, **the Joint Committee advises the ESAs, national competent authorities, financial institutions, and market participants to take the following policy actions**:

- **Financial institutions and supervisors should remain prepared for a deterioration in asset quality in the financial sector.** Against the background of high macroeconomic uncertainty, the risk of a recession, high inflation, volatile energy and commodity prices and the prospect of further interest rate increases, supervisors should continue to closely monitor asset quality and loan loss provisioning. Higher interest rates and potentially higher risk premia result in higher funding costs and operating costs, which might affect the ability of highly indebted borrowers to service their loans. This includes real estate lending, in particular at variable rates and commercial real estate as highlighted by the ESRB in its Recommendation[1], unsecured lending to consumers, assets that benefitted from support measures related to the pandemic and assets that are particularly vulnerable to rising inflation as well as to volatile energy and commodity prices.

- **The broader impacts on financial institutions and market participants from increases in policy rates and sudden increases in risk premia should be closely monitored and accounted for in risk management, including liquidity risk management**. Rising interest rates could further reduce the value of fixed income assets. They can also have a significant negative impact on the solvency position of insurers with an asset duration considerably higher than their liability duration (i.e. predominantly non-life insurers). While rising rates are currently improving net interest income and interest margins of banks, medium term implications from a higher interest rate environment might be less beneficial, and affect valuations of securities held as well as loan portfolio quality, in particular in real estate lending, Higher interest rates and potentially rising risk premia are also expected to increase funding costs and adversely affect funding conditions. At the same time banks will need to replace until 2024 substantial amounts of central bank funding they have attained by other funding sources and maintain adequate liquidity buffers. Banks will also need to issue further loss absorbing instruments eligible for MREL[2] at significantly increased costs since bank failures in the US and

[1] Recommendation of the European Systemic Risk Board of 1 December 2022 on vulnerabilities in the commercial real estate sector in the European Economic Area (ESRB/2022/9) (europa.eu)
[2] Minimum requirement for own funds and eligible liabilities

the merger in Switzerland. Moreover, high market volatility stemming from the economic and geopolitical situation could also raise short-term concerns and disruptions for market infrastructures.

- **There are liquidity risks arising from investments in leveraged funds and the use of interest rate derivatives contracts that should continue to be closely monitored.** The turmoil in the UK in September and October confirmed the importance for investment funds to maintain their resilience and adequately reflect risks in risk management practices. High market volatility stemming from the above economic and geopolitical situation could also raise short-term concerns and disruptions for market infrastructures. Given the current heightened credit and liquidity risk exposures and their role in an interconnected financial system, stress in the funds sector could be transmitted more widely to other parts of the financial system and to the broader economy. Factors contributing to liquidity imbalances and their amplification in times of stress should be closely monitored as they are critical for financial stability.

- **Financial institutions and supervisors should be aware of and closely monitor the impacts of inflation risk**. Inflation can not only impact financial institutions through rising costs, but also have an impact on asset valuations and asset quality as borrower's debt servicing capacity can be affected. It also significantly affects consumers purchasing power so that they may have less money available to purchase and repay financial products. Depending on their ability to adjust their premiums in a timely fashion, insurers may be negatively affected by increased claims (in particular those with long term liabilities). Inflation is not only relevant from a risk perspective but has also an impact on the appropriateness of products. Inflationary trends should be taken into account in product testing, product monitoring and product review phases. As regards IORPs, the effects on the retirement income of members and beneficiaries also depends on the extent to which scheme characteristics and national frameworks provide for mitigating measures or adaptations. Financial institutions and supervisors should make extra efforts to ensure investor awareness on the effects of inflation on real returns of assets, and how these can vary across different types of assets.

- **Banks should pursue prudent capital distribution policies amid an uncertain medium-term outlook for profitability in order ensure their long-term financial resilience**, despite current profitability levels and adequate capital ratios. They should carefully consider dividend, share buy-back or bonus policies as to ensure comfortable capital headroom to cover unexpected losses and maintain adequate lending to the real economy under a highly uncertain macroeconomic environment.

- **In order to maintain the resilience of the financial sector it is important to maintain a strong regulatory framework for financial institutions**. It is important not to fall behind agreed international standards and to continue to faithfully implement the finalisation of Basel III in the EU without delay and with as little deviation as possible, as highlighted by the EBA and ECB and endorsed by both the Financial Stability Board and the G20[3]. Further deviations from the EIOPA's advice on the Solvency II review are also undesirable.

- **Financial institutions are expected to put further efforts in climate-related risk management, and more broadly ESG risks management, as these risks are becoming increasingly a source of financial risk on their balance sheets.** They should continue with their efforts to integrate ESG considerations into their overall risk management. They should disclose ESG risks as well as make further efforts to adequately capture risks and vulnerabilities for ESG-related asset prices. Financial institutions should moreover consider climate-related risks when developing their overall business strategy, business objectives and risk management frameworks to ensure that they remain resilient and facilitate required funding to achieve the transition to a sustainable and low carbon economy.

[3] In a recent ECB blog post the EBA and ECB have called on the European co-legislators not to include further deviations in different areas from the agreed international standards in the EU legislative package to implement Basel III in the EU. These deviations would leave pockets of risk unaddressed, would make the regulatory regime more complex and could increase risks to financial stability.

- **It is important that financial institutions have adequate skills and capacities to ensure ICT security, and provide adequate resources, including for ICT risk managemen**t. They should implement procedures aiming to minimise the frequency and impact of ICT security breaches and cyber incidents, such as regular risk assessments and repeated tests of security measures to identify possible information leakages, malicious code, and other security threats.

- **The sell-off in crypto assets illustrates again the need to regulate effectively the crypto-asset sector.** MiCA will provide a holistic regime in the EU, but stringent and consistent implementation within the EU and convergence at the wider international level are also essential given the cross-border nature of crypto-asset issuers, crypto asset service providers, and the wider ecosystems.

INTRODUCTION

In the second half of 2022, global macroeconomic conditions were strongly affected by high inflation and high commodity prices in a context of uncertainty about the ongoing war in Ukraine and a slowdown of activity in the US, Europe and China. In October, the International Monetary Fund (IMF) cut its global real gross domestic product (GDP) growth estimate for 2023 to 2.7 % from 2.9 % in July, and in November the European Commission (EC) reduced its EU estimate compared to July 2022 by 1.2pp to 0.3 % for 2023[4]**.** In January 2023, the IMF revised its global GDP forecast upward (+0.2pp) to 2.9%, and in February the EC improved its EU GDP estimate by 0.5 pp (from 0.3% to 0.8%, but still down 0,7pp from the Summer forecast), as the global economy proved more resilient than expected in 2022 and inflation is expected to decline.[5] Yet, economic trends remain uneven across countries. **Inflation in the EU reached its highest level since the early 1980s at 11.5 % in October 2022,** compared to less than 5 % a year earlier, but started to slow down since the end of 2022 (6.4% in February 2023). **Monetary policy also tightened further to ease inflationary pressures**. In the euro area, the European Central Bank (ECB) increased its policy rates by 75bps in September and in November, followed by 50bps rises in December 2022, February and March 2023, amounting to a 350bps-tightening since end 2021. There is increased uncertainty around the future trajectory of the monetary policy in light of the recent heightened volatility in financial markets. Similar policy tightening has taken place in other advanced economies, leading to a global simultaneous tightening of financial conditions.

Overall, uncertainty in global financial markets remains high. The ongoing war in Ukraine, the uncertainty on future monetary policy and continued subdued economic activity in the US and Europe, could weigh on financial markets looking forward, though recent more positive data on the 2023 macroeconomic outlook may mitigate these risks. Spill-overs from the stress related to the failure of Silicon Valley bank and other US banks, and associated fragility of some regional US banks, could pose further risks to the financial system. Geopolitical risks remain also elevated at global and regional levels, and ongoing deglobalisation trends may also affect financial markets. Continued global subdued economic activity in 2023 may increase public and corporate indebtedness which, given higher debt refinancing costs due to rising interest rates, may weaken public and corporate balance sheets. This could increase concerns over debt sustainability. In times of stress, liquidity might become more fragile as liquidity suppliers retrench due to limited risk appetite and/or limited balance sheet capacity. At the current juncture, given the high levels of uncertainty, this makes it more likely that market shocks are amplified by liquidity supply and demand imbalances.

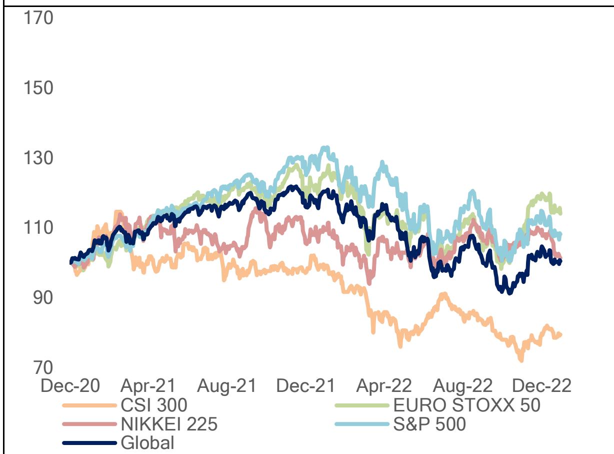
[4] IMF (2022), World Economic Outlook – Countering the Cost-of-Living Crisis, Washington DC; European Commission (2023), European Economic Forecast - Winter 2023 ;Directorate-General for Economic and Financial Affairs, Publications Office of the European Union, Luxembourg.
[5] IMF (2023), World Economic Outlook Update – Inflation Peaking amid Low Growth, Washington DC.

1 MARKET DEVELOPMENTS

Asset values changed only slightly from the end of June to end of December, except commodities which declined substantially. However, asset prices remained volatile in H2 2022, with large peak-to-trough differences. With global financial conditions tightening further in the second half of 2022, corporate bond yields reached their highest levels since 2009. The increase in yields for highly rated bonds was primarily driven by the risk-free rate, while for lower rated bonds credit spreads also played a role, as investors moved out of riskier assets.

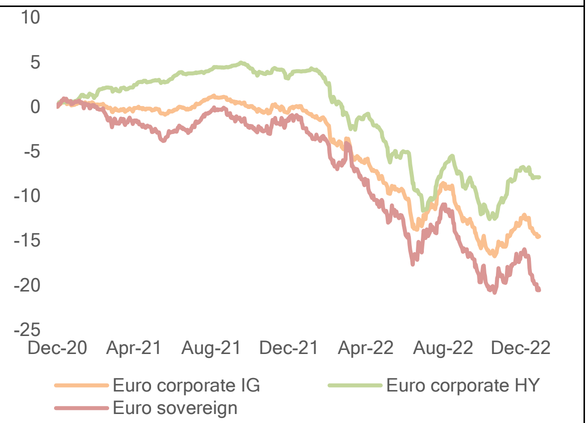
Equity markets have been characterised by **rapid movements in prices and sustained high volatility levels**. The downward price pressure, which started at the beginning of 2022, continued in Q3 2022 amid global growth concerns, inflationary pressures, and restrictive monetary policy (-5% in the US and -4% in Europe in 3Q22 for the S&P and the Euro Stoxx 50). However, markets bounced back in Q4 2022 linked to news flows around corporate earnings and the hope of easing inflation, with main indices increasing +15% (Euro Stoxx 50) and +8% (S&P 500) compared to 30 September 2022 (Figure 1). However, as of end 2022 equity prices in some sectors were still below end 2021 levels, with the real estate sector particularly underperforming (-39%), followed by the retail (-31%) and technology (-26%) sectors. In Europe, the positive trend continued also in the beginning of 2023, with the Euro Stoxx 50 and the Stoxx 600 increasing by 10% and 7.5% respectively YTD as of end-February 2023. Sectorial indices have also followed the general trends, recovering somewhat at the beginning of 2023, except for healthcare (-0.1% YTD as of end-February 2023). Markey volatility increased in in March linked to the collapse of three US banks and pressures on Credit Suisse, with main equity indices marking notable weekly losses (with peaks for S&P -4.8%, Euro Stoxx 50 -6%, Stoxx 600 -5% in the third week of March). EU banks stock prices have sharply declined. As of 17 March 2023, the Euro Stoxx Bank index was down 12% from 8 March, with equity prices falling by more than 10% for the largest EU banks.

Figure 1: Regional equity market performance



Note: Regional equity return indices. 01/04/2020=100.
Sources: Refinitiv Datastream, ESMA.

Figure 2: Performance of Euro bond indices



Note: YTD performance of BoAML corporate and sovereign bond indices, in %.
Sources: Refinitiv Datastream, ESMA

In government bond markets, **overall performance was negative in 2022** (Chart 2). European sovereign yields continued to rise after a decline in July related to the ECB announcement of a tool to support the effective transmission of monetary policy. The largest increases in H2 2022 were observed for IT (+130bps), FR (+129bps) and ES (+119bps). In terms of performance, the euro sovereign bond index fell by -7% in H2 2022 (-18% in 2022). Events outside the EU also spilled over into EU markets with further pressures on prices and increased volatility. In the UK, bond prices declined sharply in September on investor uncertainty over the country's proposed expansionary fiscal package, resulting in significant liquidity strains for Liability-Driven Investment strategies (see also 3.3.2). In EU corporate bond markets, the performance was negative in 2022, with both investment grade and high yield bond indices lower by -14% and -12% respectively. However, high yield valuations showed signs of partial recovery in H2 2022 (+4% compared to 30 June vs. +2% for investment grade). Bond liquidity indicators showed a deterioration across most metrics. Bid-ask spreads increased for both sovereign bonds (by 2.3bps to twice its 5-year moving average) and corporate bonds (by 14bps). Market depth declined, resulting in higher price impact, for selected 10Y sovereign bond futures. In contrast, price impact measures for corporate bonds improved, with the Amihud illiquidity index showing a significant decline from mid-October (–50%) to the end of 2022, but remaining at elevated levels. More recently, in 2023, long-term bond yields fell sharply in mid-March with the pressures on several banks and changing market expectations on interest rates.

Implications of the bank failures in the US and of the emergency merger in Switzerland on EU financial sectors (Update as of 20 March 2023)

The failures of a few medium-sized US banks, including Silicon Valley Bank (SVB), and the following emergency merger of the distressed Credit Suisse with the Union Bank of Switzerland (UBS) in Europe led to market pressures on banks globally and to general tensions in global financial markets, driving sharp asset price volatility in Europe. Amid contagion concerns, there was a strong initial market reaction highlighting the continuing sensitivity of the European financial system to exogenous shocks and high ongoing market uncertainty. To prevent further spill-over through hard and soft channels, central banks and regulatory authorities in Europe and elsewhere initiated communications to reassure depositors, markets and investors, after strong deposit outflows in the failed US banks. The ECB and other major global central banks also announced 7-day USD liquidity swap lines to enhance liquidity provision.

The direct exposures of European financial institutions to the failed US banks are negligible. Counterparty exposures to the failed US banks were likewise limited in terms of derivatives and securities financing transactions, whereas exposures to Credit Suisse are more substantive. Impacts on these markets were minimal. Counterparty risk also appears low in the insurance and IORPs sectors. Aggregate exposures in the EEA to SVB and Signature Bank as well to Credit Suisse relative to total investments for the sectors are limited, with some concentration in individual cases requiring attention.

The observed contagion from these failed banks appeared linked to confidence and market volatility rather than to counterparty credit risks or to liquidity issues. In the case of Credit Suisse, risks were mitigated by the merger with UBS. However, the resolution actions taken by Swiss authorities that led to a write down of Additional Tier 1 (AT1) instruments issued by Credit Suisse – inconsistent with the hierarchy of seniority as established by the Financial Stability Board – led to an initial significant price drop in subordinated debt instruments, included in those issued by EU banks, and in particular those of AT1 instruments. The high volatility and sharp share price movements, including for listed European banks, also reflect uncertainties about medium-term implications of the rising interest environment on bank balance sheets and their customers, and the potential risks involved with the ending of over a decade of very low interest rates. This includes potential implications on profitability from unrealised losses in bond portfolios. While the European banking sector is resilient with strong capital and liquidity positions, supervisors should not be complacent and should assess for potential, yet-to-be fully identified risks and vulnerabilities in light of recent events, including those related to bank business models.

In crypto-assets markets, one stablecoin broke its peg due to exposures of its sponsor to some of the failed US banks. On 11 March, USDC, the second largest stablecoin in size, broke its peg and its price fell to a low of 88 cents, as investors rushed to exit USDC on concerns that Circle, the issuer of USDC, held some of USDC's cash reserves at SVB. Several trading platforms, including Binance and Coinbase, suspended USDC conversions into USD and Bitcoin and Ether lost 10% of its value. Although the sell-off was distinct from previous sell-offs (e.g., Terra/Luna or FTX), as it originated in a 'traditional' bank run outside of crypto markets, it highlights again the high contagion risks within crypto markets, given the high interconnectedness of crypto firms.

Volatility in commodity prices remained very elevated. Although the composite index of commodity prices showed little net change, there were wide price moves for energy prices during the period. Natural gas and electricity futures surged during the summer to reach a peak end August. Since then, energy prices have declined, as mild weather and output from other sources have helped dampen demand, resulting in EU storage facilities 88% full end-December (against 53% in 2021). In contrast, agricultural and metal commodities prices remained relatively stable.

ESG trends, developments in crypto-assets and cyber security

The markets for environmental, social and governance (ESG) products continued to grow in 2022, albeit at a slower pace, with this trend showing resilience to broader market developments. The total value of ESG bonds outstanding reached EUR 1.5 trillion in December 2022, up 12% from June. Corporate issuance dropped by 19% over that period compared with a year earlier, in line with broader corporate bond market developments, while public sector issuance picked up again (+22%) after a sharp slowdown in H1 2022. The decline in private sector issuance affected all ESG bond types, with sustainability-linked bonds recording the largest drop (-69%). Green bond issuances also decreased but investor appetite for these instruments remained, visible in the persistence of a sustainability premium for green bonds with maturities of over ten years.[6] **The share of ESG investment vehicles in the EU fund industry continued to increase, however, in spite of fluctuations in the total value of assets managed by EU ESG funds.** The appetite for sustainable investment products in particular remained strong, with investors withdrawing EUR 210bn from funds without any sustainability characteristics or objectives (equivalent to 4.2% of the assets under management of these funds), compared with EUR 127bn for Article 8 funds under the Sustainable Finance Disclosure Regulation (SFDR) (2.5% of Article 8 fund assets), while they allocated an additional EUR 19bn to Article 9 funds (4% of Article 9 fund assets).[7] Banks have continued to integrate ESG considerations in their funding and lending activities. The EBA risk assessment questionnaire (RAQ) shows that banks have the appetite to offer various sustainable loans to non-financial corporates (NFCs), small- and medium enterprises (SMEs) and retail borrowers. Banking sector analysts also expect that green corporate lending, green consumer credit, and further segments such as green mortgages will increase in the next 12 months. A lack of data and of common agreed definitions and standards about future regulatory treatment are seen as major impediments for market growth.

Reinsurance capacity continues to be under pressure from increasing losses to properties and businesses due to climate change. The withdrawal of reinsurance in certain lines of business, price increases and higher net retentions for cedents, may lead to a further widening of the insurance protection gap for climate related natural catastrophes. EIOPA has developed a dashboard to monitor the insurance protection gap for natural catastrophes in Europe. Going forward, to assess the resilience of the insurance industry and society to climate-related events, it will be key to assess the reinsurance natural catastrophe capacity.

The realisation of climate risks could impact the quality of the assets held by financial institutions negatively. It is also uncertain whether and to what extent these risks are reflected in asset prices. For this reason, disclosure requirements, together with other regulatory initiatives, are fundamental to capture respective risks and vulnerabilities across the financial system. In the banking sector, for example, the EBA has developed implementing technical standards (ITS) on the disclosure of ESG risks, which require banks to disclose climate-related risks associated with their lending and investment activities from 2023 onwards. Starting in 2024 banks are also required to disclose their green asset ratio (GAR) and their banking book taxonomy alignment ratio (BTAR).[8.]

ESG factors and risks have become increasingly important in the financial system. One key element for 2023 are the contributions to the **first ever EU wide climate change stress test** for the financial sector. As part of its Strategy for Financing the Transition to a Sustainable Economy the European Commission has mandated the

[6] See Trends, Risks, Vulnerabilities Monitor No. 1 2023 for further analysis.
[7] Article 8 funds. promoting environmental or social characteristics and Article 9 funds have a sustainable investment objective.

ESAs to conduct this exercise in cooperation with the ECB and the ESRB. Its scope covers banks, insurers, IORPs and funds. The aim is to test the resilience of the EU financial system in case of a disorderly transition to the Fit for 55 objectives by 2030 and to assess how stress in the financial system could jeopardise the 2030 goals. After defining the mandate, work on its operationalization has already started, and the exercise is expected to be completed by end-2024. Already in 2022, EIOPA has performed its first IORP climate stress test (see also Box on transition risks).

BOX: Exposure of financial institutions to transition risks

In 2022 EIOPA carried out its first climate stress test for the IORPs sector in the European Economic Area (EEA) to gain insights into the effects of environmental risks on the occupational pension sector. The focus of the exercise was on the asset portfolio of IORPs, and the results show sizable impact in the adverse scenario, indicating that IORPs have a non-negligible exposure to transition risks, especially in the form of investments in climate-relevant sectors. The stress test scenario provoked a sizeable drop of approximately EUR 255bn (or 12.9%) in the value of total assets.

The stress test was complemented by a qualitative survey on mitigation and adaptation measures, which revealed that although IORPs are increasingly considering ESG factors in their investment decisions, they still experience noteworthy hurdles in allocating investments to climate risk-sensitive categories. Only 14% of IORPs reported using environmental stress testing in their own risk management. Importantly, results indicate that this subgroup performed better in the exercise than their peers that do not conduct such analyses, suggesting that own climate stress testing helps IORPs position themselves better against transition risks.

ESMA continued its work on climate stress testing of European investment funds based on the latest climate scenario projections of the Network for Greening the Financial System (NGFS) and moreover, contributed to the ECB/ESRB/EBA 2021/22 Project Team on climate risk monitoring. While ESMA's latest top-down simulation recorded only a minor decrease in overall net asset value of the investment fund sector (2%, under the adverse delayed transition scenario), losses varied significantly across individual funds, driven by differing exposures to climate-vulnerable sectors and geographies.

Building on the experience gained in its EU-wide pilot exercise on climate risk in 2021, as well as other similar exercises performed by other authorities, the EBA is currently developing and discussing a more comprehensive EU-wide climate stress testing framework. The aim is to develop the current bank stress testing framework further to more accurately assess the effects of climate risk on the banking sector, contributing to a better understanding of climate risk by institutions and supervisors, and allowing to develop more comprehensive strategies and mitigating actions.

Following a sharp sell-off in H1 2022, the collapse of FTX, one of the largest global crypto exchanges, sent the values of **crypto assets down by 20%** in H2 2022. The FTX collapse in the space of a week sent shockwaves across the entire crypto industry, as contagion fears spread, and investors rushed to the exit, thereby highlighting the close interconnectedness of crypto firms. Several stablecoins temporarily de-pegged. Several crypto lenders, e.g., BlockFi and Genesis, suspended withdrawals and some subsequently filed for bankruptcy. As of end-2022, total market capitalisation of crypto assets reached around EUR 770bn, representing a 70% fall since its historical peak of EUR 2.6tn in November 2021. It increased back to EUR 1tn in February 2023. Given the very low exposures by EU market participants, there have been so far no material spill-over effects of the crypto turmoil into the EU finance sector and the real economy, but monitoring is required as crypto markets continue to evolve quickly. **In December 2022 the Basel Committee on Banking Supervision (BCBS) published global standards for the prudential treatment of banks exposures to crypto assets[9]. Implementing these standards in the EU will help mitigate the financial risks if the banking sector were to gain more exposures to crypto assets in the**

[9] BSBS Prudential treatment of cryptoasset exposures

future (current exposure levels are *de minimis)* In the EU, the Markets in Crypto Assets Regulation (MiCA), on which a final vote is expected shortly, introduces a comprehensive set of rules for the public offering and provision of services in relation to crypto assets, with a view to protect EU investors and financial stability. In anticipation of the application of MiCA, supervisors are scaling up their preparatory efforts, including enhancing market monitoring tools. However, in view of the borderless nature of crypto-assets, **continued coordination and efforts to achieve convergence at the international level remain a high priority**.

The continuing Russian war in Ukraine is keeping the overall level of cybersecurity risk elevated for the EU financial sector. The potential for escalation involving cyberattacks remains, and the effects of a successful attack on a major financial institution or on a critical infrastructure could spread across the entire financial system through three channels: (i) direct contagion of software across systems; (ii) propagation of a liquidity shock via operational outages; (iii) a negative shock to investor confidence, likely to be exacerbated by uncertainty in a crisis. Financial entities could see disruptions to business continuity, negative reputational impact and, in extreme scenarios, there could be system-wide liquidity and financial stability problems. Cyberattacks could also undermine critical services and compromise consumer data beyond the financial sector. EU legislation on digital operational resilience (DORA), which entered into force in January 2023, will play an important role in strengthening the security of digital financial operations in a heightened cyber risk environment. The ESAs have started their DORA preparations. This includes work on an effective EU-level coordinated response in the event of a major cross-border cyber incident impacting the EU financial sector, not least in line with an ESRB Recommendation to start preparing for the gradual development of a pan-European Systemic Cyber Incident Coordination Framework (EU-SCICF)[10].

2 Developments in the financial sector

The Euro Area asset management industry went through a challenging 2022, with Assets under Management (AuM) experiencing their sharpest decline since the Global Financial Crisis (GFC) (6% year-on-year, down to EUR 16tn AuM), mostly due to valuation effects. In H2 2022, **performance in most fund categories remained negative**. The 12-month average monthly performance of equity funds fell to -1.3% in December from 0.9% in June, while those for bond and mixed funds were -0.9% and -1.1% respectively (-0.7% in June for both). Commodity funds still reported positive returns of 1.2%, but this was significantly below their highest level in March (3.2%) when commodity prices surged after the Russian invasion in Ukraine. In H2 2022 **most fund types recorded net outflows**. Despite their positive performance, commodity funds in particular experienced substantial outflows (– 23 %), albeit from a low base. MMFs did not initially benefit from their status as low-risk asset and experienced outflows in Q3 2022 (-1%) before recovering in Q4 2022, up to total inflows of 11% in 2022. GBP MMFs received nearly 30% inflows for the month of October alone. Overall, GBP MMFs recorded inflows of 20% in H2 2022, greater than those for EUR MMFs (11%) and USD MMFs (5%).

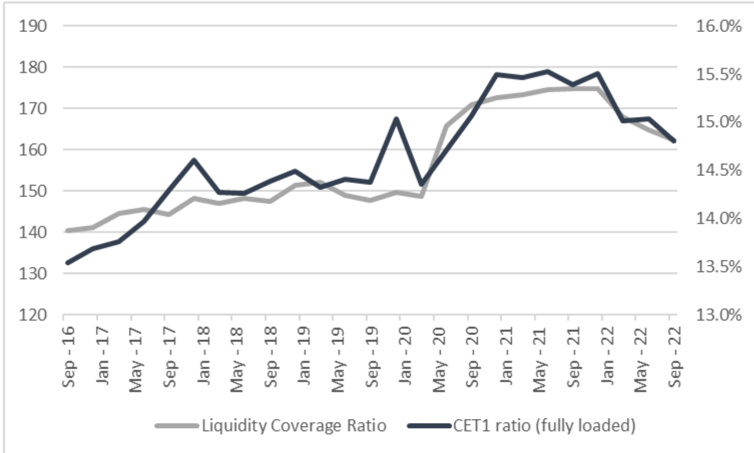
The solvency position of insurers provides buffers to absorb potential losses given the macro headwinds ahead. The data provided in this paragraph refers to Q3 2022 unless stated otherwise. The aggregate SCR ratio of life undertakings was 289% compared with 273 in Q4 2021. Composites undertakings experienced a moderate decrease in their solvency positions from 251 to 244%, while there was a slight increase for non-life companies from 250% to 256%. The year-on-year premium growth for non-life business, based on the January 2023 EIOPA Risk Dashboard[11], accelerated to 12 %. Life gross written premiums remained nearly constant with a drop of -1% on a year-on-year basis. Non-life reinsurance premiums in Q3 2022 were 18% higher compared to Q3 2021, significantly outpacing the growth in premiums for the direct business. This is indicative of certain reinsurance

[10] ESRB Recommendation to establish a systemic cyber incidence coordination network, January 2022
[11] Risk dashboard | EIOPA (europa.eu)

lines becoming more expensive.[12] **The investment performance of insurers deteriorated slightly** in H1 2022 compared with the year 2021, with the annualised return on assets dropping to a median of 0.4%.

For IORPs, the value of the assets decreased in Q3 2022 compared to Q3 2021. On average, the cover ratios of EU IORPs providing DB schemes exceeded 100% in Q3 2022.

Figure 3: EU banks liquidity coverage ratio (LCR in percent, left hand axis); CET1 ratio (fully loaded, right hand axis)



Source: EBA reporting data

In the banking sector, capital and liquidity positions remain robust despite a slight decline observed in recent quarters. The average Common Equity Tier 1 (CET1) ratio declined to 14.8% on a fully loaded basis in Q3 2022, from 15.4% in Q3 2021. The declining ratio was mostly driven by increasing RWAs, mainly stemming from rising credit risk, and slightly declining CET1 capital sources. Despite some capital ratio contractions, banks maintain considerable capital headroom over regulatory requirements, which can act as an important safeguard for banks to continue lending to the real economy in times of economic difficulties. The liquidity coverage ratio (LCR) continued to decrease, to 162.5% in Q3 2022 compared to 174.8% in Q4 2021, while remaining on overall comfortable levels. Yet recent bank failures in the US and the emergency merger in Switzerland coupled with substantially lower LCR levels of certain non-EUR currencies call for continued supervisory monitoring and scrutiny of liquidity positions. Banks should continue to ensure comfortable liquidity buffers, not least while liquidity buffers may be used to partially repay outstanding volumes of central bank funding (TLTRO-3). Also bank funding plans indicate their expectations that changing economic and monetary developments will reduce banks' LCRs and net stable funding ratios (NSFR) going forward.

Lending growth continued since the beginning of the Russian war, and banks' total loans increased by 2.8% between Q1 2022 and Q3 2022. Loan growth was mainly driven by lending to non-financial corporates, while mortgage lending growth slowed down, mostly because of rising rates and increasing uncertainty. Going forward, the rising interest rate environment and reduced risk appetite of banks following recent bank failures in the US and the emergency merger in Switzerland might adversely affect bank lending volumes. Asset quality has remained stable, with a continuing low non-performing loans (NPL) ratio of 1.8% in Q3 2022 (2.1% in Q3 2021).

Despite the deteriorating economic environment, **bank profitability was supported by rising net interest income amid continued loan growth and higher net interest margins (NIMs)** in the rising interest environment. The average return on equity (RoE) remains benign in Q3 2022 at 7.7%, and at the same level as in Q3 2021. While NIMs increased, the passthrough of higher interest rates to loans and deposits has so far been rather limited and heterogeneous across Member States, but is expected to pick up. Interest margins have also developed very heterogeneously across member states and segments. According to the EBA RAQ, ca. 40% of respondents expect over 80% of their commercial real estate (CRE), corporate and SME portfolios to reprice in the following 12 months, while expectations for mortgage repricing are lower. As regards deposits, 57% and 68%

[12] Financial Stability Report June 2022 | Eiopa (europa.eu)

of respondents respectively intend to raise rates for household and non-financial corporates (NFC) deposits. The share of bank lending, in particular of mortgages, at floating rates and at fixed rates is rather heterogeneous across Member States. Banks with a larger share of fixed-rate loans or with longer maturities of fixed-rate loans are expected to experience a slower asset repricing, while banks in need to refinance a large share of their liabilities might experience a substantial increase in interest expenses. **Heterogeneous implications of the rising interest rate environment on banks call for targeted supervisory monitoring and responses**.

On the cost side, banks also contained their operating expenses despite high inflation, and the average cost to income ratio decreased to 61.1% in Q3 2022 (62.7%% in Q3 2021).

3 MAIN RISKS IN THE FINANCIAL SECTOR

As uncertainty in global financial markets remains high, financial risks have also increased because of the extraordinary inflation shock, substantially higher interest rates, and the slowdown of economic growth. While vulnerabilities related to liquidity, credit and interest risk can materialise separately, systemic risk is more likely to crystallise due to a combination of vulnerabilities in the current environment and due to the interconnectedness within the financial sector. For example, the size of the non-bank financial intermediaries sector and its interlinkages with other parts of the system has grown over the past decade. Such instances have already been witnessed in commodity markets and during the stress affecting Liability-Driven Investment strategies.

On top of these risks, further risks relate to ESG and digitalisation. Public scepticism about well-founded intentions of climate pledges is becoming apparent with the increased focus on greenwashing. The issue of greenwashing has become central, including for investors and issuers facing growing reputational risk. In the EU, disclosure obligations such as those introduced by the SFDR will help, even though there are some continuing challenges. Rising digitalisation also increases the likelihood of cyber-attacks and challenges the resilience of IT infrastructures (see ESG and digitalisation trends in chapter 1).

3.1 INFLATION AND INTEREST RATE RISK

The high level of inflation and subsequent monetary tightening has increased the interest rate risk to which fixed-income funds are exposed. Against this background, bond funds continued to decrease the maturity of their portfolios, down to an average effective maturity of 6.9 years for investment grade funds and 3.5 years for high yield funds, reaching an 8-year low at the end of H2 2022. This is further reflected in terms of duration, with the duration of the EUR investment grade corporate index falling to 4.6 years by the end of 2022, from 5.2 years in H1 2022. Similarly, the duration of the EUR high yield corporate index reduced from 4.1 to 3.2 years over the same period. This implies that the potential valuation impact of a 100bp yield shock on these two indices decreased by 0.6 and 0.9 percentage points respectively. Similarly, MMFs significantly reduced their average weighted maturity to strengthen resilience to a rate rise, down to a 10-year low of 19 days.

The current (and expected) inflationary environment can affect insurers through different channels: The level of current and expected claims and expenses may increase with the need of higher reserves. While expense inflation hits all insurers the sectors most impacted by claims inflation are the non-life and health segment (long-tail lines of business). According to the result of a scenario analysis[13], for non-life the increase in expenses and claims inflation reduces the median ratio of the Excess of Assets over Liabilities to Technical Provisions from 76.1% in the baseline to 71.6%. The impact depends on the types of risk underwritten. Long tail business such as workers compensation, medical professional liability and other liability coverage entails a higher risk of underestimating future inflation. Without a sufficient increase in premiums to offset the effects of inflation,

[13] Financial Stability Report December 2022 | Eiopa (europa.eu)

underwriting results will drop. However, even in mandatory lines of business, the lower purchasing power of policyholders combined with the intense competition could restrict the room for such increases.

Higher interest rates can have positive and negative effects on insurers: Where the duration of liabilities exceeds those of the assets (in particular for life insurers) the higher discount rates increase the excess of assets over liabilities. But this might be counterbalanced by the possibly accompanying repricing of risk premia and the negative impact on growth. EIOPA performed an analysis for the combined effect of increases in interest rates and inflation.[14] According to the estimates, risk premia could rise by 190 bps before fully offsetting the on balance positive effect of inflation and higher interest rates. The critical level of risk premia expansion varies considerably across types of business, ranging from +80 bps for non-life undertakings and +145 bps for composite undertakings to a +240bps increase in risk premia for life undertakings.[15] The higher interest rates might also incentivise policyholders to surrender existing contracts. Finally, higher liquidity needs resulting from surrenders and possible margin calls on interest rate derivatives combined with lower premiums create potentially elevated liquidity risks.

Inflation could negatively impact the financial position of IORPs especially where pension entitlements are linked to inflation or wage growth. Moreover, high inflation could put upward pressure on contributions by sponsors and members, in particular for pension schemes with full inflation compensation. On the other hand, many IORPs will benefit from higher interest rates as the duration of their liabilities exceeds the asset duration. Current and future beneficiaries in pension schemes with no or conditional indexation may lose purchasing power. The specificities of IORPs across Member States, along with their assets allocations, will determine the potential impact of rising interest rates and high inflation. Although most countries experienced in 2022 a decline in their funding ratios, the overall funding ratio for the EEA improved.[16]

Volatile financial markets and the fast pace of interest rate increases have affected bank wholesale funding conditions. Bank debt markets experienced a sharp repricing and spreads widened substantially for most of 2022, although again on a slightly downward trend since Q3 2022 until February 2023. High volatility contributed to challenges for some banks to smoothly place all instruments across the capital ladder to investors. **Issuance volumes and the access of some banks to certain types of debt instruments, in particular subordinated, are also affected by heightened volatility**. Issuance premia for funding instruments have also increased. Banks more reliant on wholesale funding or in need to build up or refinance parts of their MREL buffer might be more exposed to heightened market volatility, increasing yields, and spread widening. Ongoing monetary tightening and expected further interest rate increases by central banks coupled with the negative economic outlook are likely to further increase wholesale funding costs, in particular for riskier instruments ranked lower on the capital ladder. **Rising funding costs and elevated volatility going forward may particularly affect Euro Area banks which need to partly refinance large amounts of long-term funding (TLTRO-3) they have obtained from the ECB**. About EUR 1.2 trillion of TLTRO-3 will mature in 2023, thereof about EUR 1 trillion until June 2023. This compares to ca. EUR 3.3 trillion of cash and reserves euro area banks held in Q3 2022. Supervisors should carefully assess the impact of maturing central bank funding, in particular in the near term. They should ensure adequate liquidity buffers and scrutinise bank funding plans, not least in light of experiences from bank failures in the US and the emergency merger in Switzerland, while funding costs, including for deposits, are expected to increase further.

Capital markets trends have not only affected bank funding costs but also determine asset prices and affect bank profitability. The medium-term outlook for sustainable bank profitability is uncertain. The expected macroeconomic deterioration will likely result in slower lending growth and rising impairments. While rising rates have a positive effect on interest income, rising funding costs, including expected further increasing costs

[14] Financial Stability Report December 2022 | Eiopa (europa.eu)
[15] The loss absorbing capacity is not captured in the model. Its incorporation would result in a higher critical level of risk premia.
[16] This is mainly because funding ratios of Dutch and Swedish IORPs, two countries with a very large IORP sector, improved.

for deposits and implications on lending growth might offset additional income from asset repricing and affect profitability. Higher provisioning needs for an expected deteriorating asset quality, inflationary pressure on operating costs, costs related to digital transformation and higher compliance costs, e.g., related to sanctions enforcement, are all expected to affect profitability. Subdued growth and rising rates could additionally lead in lower fee income from asset management business and payment services.

3.2 Credit risk

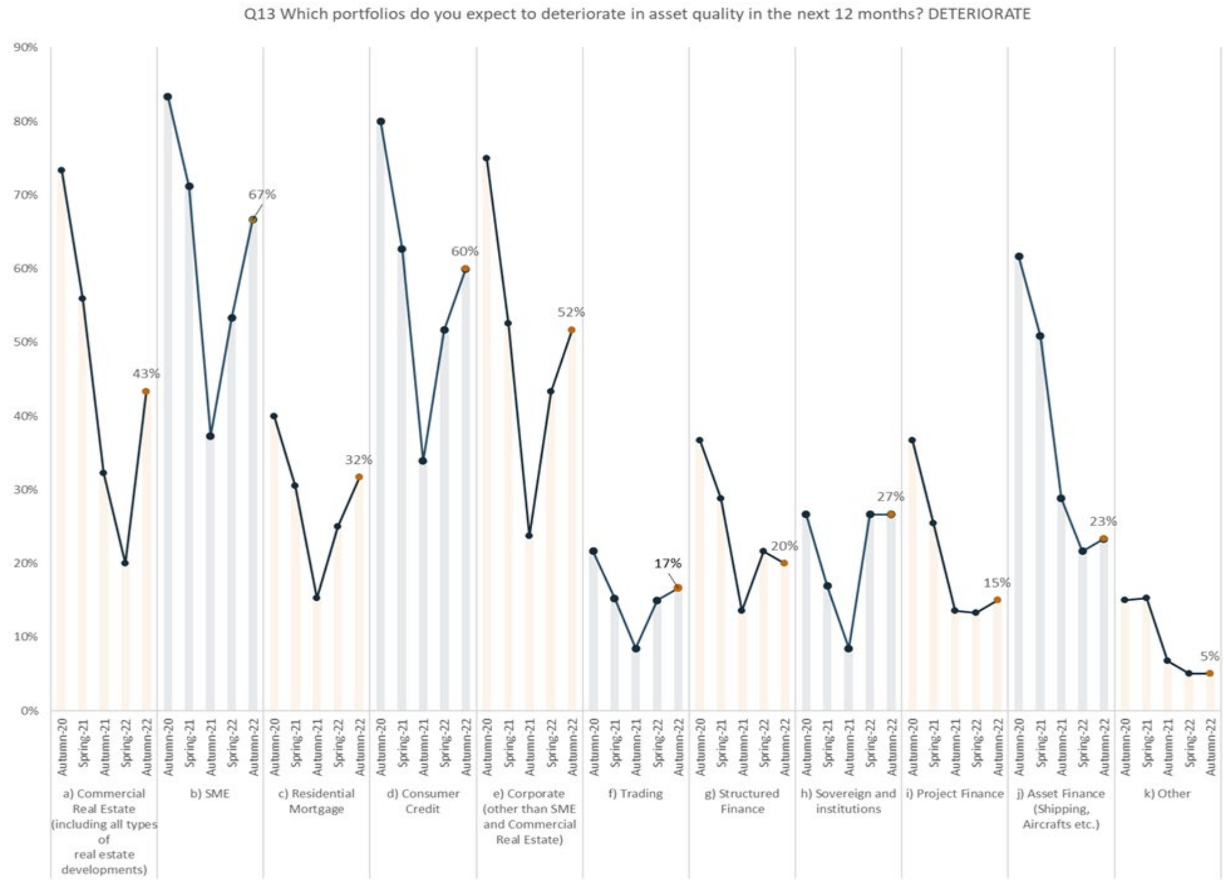
Deteriorating macroeconomic conditions increased the likelihood of materialisation of credit risk for all financial institutions. Increasing credit risk raises concerns of downgrades for some borrowers that will deteriorate their risk profile. Bond fund exposures to riskier issuers remained elevated in H2 2022, especially for high yield funds. The credit quality of high yield portfolios remained close to a five-year low, now having a rating between BB– and B+ on average. The likelihood of credit risk materialisation also increased with rising interest rates, as seen in elevated credit spreads. This affects the assets held by all financial institutions. Particularly for financial institutions holding illiquid assets, a sudden market repricing could potentially trigger investor runs and asset fire sales. In case credit risk should materialise this could propagate more widely and to crystallise other risks, such as liquidity, through interconnectedness.

In the insurance sector, overall credit risk remained stable at a medium level, however, there has been a slight increase in the median exposure towards below investment grade assets (with a credit quality step higher than 3).[17] In the banking sector**,** the mix of deteriorating economic prospects, high inflation with a phasing-out of accommodative monetary policy and rising rates, slowing down real estate markets and loan portfolios with pre-existing vulnerabilities from the pandemic, are all adversely affecting the outlook for asset quality. The high share of loans allocated to IFRS 9 stage 2 of total loans at amortised costs (9.5% in Q3 2022 compared with 8.7% in Q3 2021) despite continued loan growth may point to a deteriorating asset quality. Also, the quality of loans under previous support measures related to the pandemic continues to deteriorate and requires vigilance, although the volume of these loans (EUR 583bn in Q3 2022) is declining. Increasing exposure to CRE in Q3 2022 compared to Q3 2021 may pose particular risk in light of cooling real estate markets and rising rates. Responses to the EBA RAQ indicate that an increasing share of banks expect asset quality to deteriorate across most portfolios in the next 6 – 12 months, and in particular in portfolios of lending to SME, consumer credit, and corporate lending.

While asset quality is stable for the time being, banks should be prepared for an expected deterioration in the quality of loans and debt securities and rising NPL levels. Previous support measures related to the pandemic no longer support asset quality. Rising interest rates might increase debt payment amounts of borrowers and reduce collateral valuations, and thus affect the quality of assets such as loans, floating rate bonds and some debt-backed securities. High inflation and slow economic growth might reduce borrowers' disposable income, with a substantial impact on debt servicing capacities, especially for more vulnerable borrowers and to those with floating rate loans subject to repricing at higher interest rates. In case of a recession, debt sustainability concerns might mount. Energy- and commodity price volatility might moreover continue to affect energy-intensive sectors Also, housing indices are already declining in some Member States, and may decline further amid a subdued economic outlook and rising interest rates. Significant and further increasing exposure to real estate lending while interest rates are rising may pose risks. While asset quality is expected to deteriorate, it is very important that banks have in place adequate, forward looking provisioning policies, and that they detect assets and debtors and exposures in distress early on and engage with them, and timely recognise loan losses.

[17] Risk dashboard | Eiopa (europa.eu)

Figure 4: Expectations of asset quality deterioration in the next 12 months



Source: EBA RAQ

3.3 Commodity markets

Extreme price movements and heightened volatility in commodity markets resulted in substantially higher margin requirements in the third quarter both at EU CCPs (44% increase in Q3 2022, followed by a 45% decrease in Q4 2022) and at one systemically important non-EU CCP which clears EU commodity derivatives contracts. The proper calculation as well as the quality and the timely collection of margins are fundamental aspects of the resilience of CCPs and financial stability more broadly.

In commodity derivatives markets, the sharp rises in energy prices observed until end-August, and the corresponding increase in margin requirements on ETDs have been associated with a migration of energy derivatives transactions to non-cleared OTC markets, especially by NFCs. Some firms may be migrating to OTC markets to reduce liquidity risk linked to rapidly changing variation and initial margins that need to be posted in cash or in high-quality collateral. On OTC markets, less restrictive collateral arrangements can potentially be negotiated, particularly by high-rated commodities firms. For example, the share of NFC gross notional amount outstanding for energy derivatives in OTCs increased from 15% before the war to around 25% after the start of the war and reached 40% by the end of 2022. Such a migration presents risks as OTC markets are less liquid and transparent than ETD and counterparty risk is higher since there is no centralised risk management for OTC transactions. The migration to OTC can also reduce liquidity and price discovery on markets. The reduced levels of transparency of OTC market and lower levels of (observed) liquidity may lead to challenges in the assessment of concentration risk in energy derivatives markets.

On 22 September, ESMA submitted its response to the EC regarding its request for information on the level of margins and of excessive volatility in energy derivatives markets. ESMA indicated that it would be useful to consider the temporary implementation of a new type of trading halt mechanism in cases of the excessive levels of volatility restricted to energy derivative markets. If adopted, the parameters for such a mechanism should be set at EU level and apply to all venues offering trading in energy. These mechanisms would trigger halts only for a limited period and in exceptional circumstances only. In the end, it was decided not to implement the trading halt mechanism.

ESMA also made concrete proposals on the same date for a temporary extension of CCP collateral to commercial bank guarantees not backed by high-quality collateral but restricted to NFCs that acts as clearing members, and government backed guarantees for all clearing members. These proposals were aimed to alleviate liquidity pressure while keeping in mind the overarching goal of EMIR of preserving financial stability and avoid shifting risks from one sector to another.

In its response to the EC, the EBA highlighted that banks provide significant levels of support to energy firms by facilitating the posting of collateral towards CCPs. Toward CCPs, the use of credit lines is the norm rather than bank guarantees. In support of energy firms, market-based solutions in the form of higher usage of existing credit lines and expansion of various forms of collateral transformation are in place. Finally, an RTS outlining the temporary emergency measures on collateral requirements was published in the EU Official Journal on the 28th of October.

On 22 December 2022, the European Council adopted a Regulation establishing a market correction mechanism (MCM) to protect Union citizens and the economy against excessively high natural gas prices. The Regulation entered into force and application on 1 February 2023, with the MCM started applying from 15 February, to be triggered when a 'market correction event' occurs, that is, in the situation where both the front-month TTF derivative price and its spread relative a reference price exceed certain thresholds.[18] ESMA published a preliminary data report in January 2023 and an effect assessment report in March 2023, both finding that the adoption of the MCM Regulation had not yet had significant impacts. This reflects the continuing low gas prices and relatively high storage levels. Impacts of the MCM could be different, however, as the market environment changes and activation of the MCM is anticipated by market participants. Announcements by ICE Endex and EEX to offer respectively the trading of TTF contracts in the UK and on an EU OTF – both outside the scope of the MCM Regulation – confirm that market participants are preparing for a scenario where the MCM could be activated in the future. The preliminary report also notes that, by curbing the key price discovery function of regulated markets, the MCM will not come without consequences on market participants' trading behaviour and may have an effect on the ability of all market participants to effectively manage their risks.[19]

Banks play an important role in the energy markets and in energy derivatives market, both with providing credit and funding and with services to manage volatility in energy derivatives markets. They have **significantly increased their exposures to the energy sector, both in terms of loans as well as derivatives.** Not least in response to the energy crisis, banks supported these firms by increasing lending and credit lines to this sector by ca. EUR 74 bn (+26%) between June 2021 and September 2022, when gas prices peaked. As of September 2022, EU banks had close to EUR 340 bn outstanding loans and advances towards energy companies (electricity, gas, steam, and air condition supply), representing over 5% of total NFC loans. These **exposures are concentrated with a small number of banks**. The increased price volatility in EU oil and gas markets also created very high liquidity needs for energy related firms in 2022. What this episode has shown is that when liquidity is drawn by market participants it has an impact on the banking sector and given that only a limited number of banks is active in this area a shock would not be evenly distributed across the sector. This also implies that (this limited number of) banks in times of market volatility are less able to responsibly provide additional liquidity.

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[18] See Council Regulation (EU) 2022/2578.
[19] See ESMA Preliminary data report on the introduction of the market correction mechanism, January 2023 and ESMA Effects Assessment of the impact of the market correction mechanism on financial markets, March 2023. See also ACER Market Correction Mechanism Preliminary data report, January 2023 and Market Correction Mechanism Effects Assessment Report, March 2023.

During Q3 2022, the carrying amount of financial assets held for trading, corresponding to derivative instruments held by EU/EEA banks for trading or hedging purposes was around EUR 2 tn, or close to 7% of their total assets. It had increased by around EUR 400 bn (+26%) in the quarter but is now around the average of the period between December 2014 and June 2022 (EUR 1.9 tn). Of these exposures only 3.5% is referenced to commodities (around EUR 66 bn). Energy derivatives form the main business within commodity derivatives. They are estimated to be more than 40% of the reported commodity derivatives.[20]

While insurers have been less impacted by the developments mentioned above, the insurance sector could be affected by the **ban on the provision of insurance and reinsurance for the shipment of Russian oil** to third countries which is sold above the price cap. This ban comes on top of other restrictions on insurance (e.g., on aircraft insurance). While insurers will lose some business, the significant risk may be possible **involuntary violation of the sanctions**. Oil is a commodity and Russian oil might be reloaded onto another ship to disguise its origin. Insurers should take all necessary measures to prevent this. If such a violation was detected the reputation of the insurer would suffer. An even larger risk could be legal consequences (e.g., in the USA).

3.4 STRESS RELATED TO LIABILITY INVESTMENT STRATEGIES AND LIQUIDITY RISKS IN THE NON-BANK FINANCIAL SECTOR

High volatility and fragile market liquidity are limiting the resilience of financial markets against external shocks. The recent stress related to Liability-Driven Investment (LDIs) strategies investing in Sterling government bonds exemplifies how this risk can materialise. A large shock to Gilts (a 130bps jump in yields in a few days) led to substantial liquidity pressure on leveraged LDI funds used by UK pension funds. Margin requests on repo transactions backed by government bonds (whose value fell due to the sharp increase in yields) and IRDs (where higher yields resulted in mark-to-market losses) surged. To raise liquidity, LDIs thus sought to sell sovereign bonds but the market was unable to absorb the volumes of sales. The intervention by the Bank of England in the form of temporary sovereign asset purchases provided a backstop to the sovereign bond market thus preventing a continued vicious cycle of additional margin calls and forced selling.

The UK episode showed some pockets of vulnerability in the EU market, especially through the fund sector while direct exposures of the EU insurers and IORPs to UK pension funds are negligible. LDIs redeemed from GBP-denominated MMFs, spreading liquidity pressures to EU-domiciled MMFs, resulting in large outflows and significant NAV deviations for GBP LVNAVs. At least five EU MMFs LVNAVs denominated in GBP experienced cumulative redemptions exceeding 10% in a week, in a context of NAV deviations close to the regulatory threshold (20bps). Moreover, most LDI-funds are EU-domiciled AIFs held by UK investors. As of end-2021 there were around 500 AIFs qualifying as LDI funds (85% of which denominated in GBP) with a total NAV of EUR 250bn. Those funds had gross leverage of around 370% of NAV, mainly from IRDs and repos. Against the heightened redemption requests, GBP MMFs increased the proportion of liquid assets in their portfolios during the last week of September, with both daily and weekly liquidity levels rising significantly. Following the intervention of the Bank of England through temporary sovereign asset purchases, liquidity improved, and prices rebounded, mitigating the liquidity pressures on LDIs. Since then, NCAs in Ireland and Luxembourg have asked LDI managers to maintain the current level of resilience, an initiative supported by ESMA.

It is worth exploring whether similar investment strategies implemented by European insurers and pension funds create similar risks. UK pension funds had meaningful exposures to leveraged funds holding fixed income instruments. In Europe, the exposure to LDI-like funds is concentrated in a small number of IORPs and insurers, based on the information available to EIOPA. They represent in aggregate less than 0.4 % of total assets for

[20] Estimation based on COREP data for banks using the standardised approach (SA) for market risk. Same information is not available for banks using Internal models

defined benefit schemes and are not material for insurers portfolios[21]. In contrast to this, several EU insurers use interest rate derivatives to a meaningful degree. These instruments can be a useful tool to manage the asset liability mismatch that pension funds and insurers face provided liquidity risks are properly managed.[22] A reason to assume that the EU insurance and pensions sectors are less vulnerable to such risks is that the investment portfolios of derivatives users tend to be well diversified in terms of asset classes, countries and maturities. This allows to liquidate different types of assets with a potential lower impact on liquidity in specific segments of the market. EIOPA has nevertheless intensified the monitoring of the exposures to derivatives and repo market in the European insurance and pension fund industry.

This episode shows how leverage can amplify shocks and trigger liquidity strains within the EU financial system, even if the initial shock originated outside of the EU.

[21] The 0.4% value and the non-materiality statements are approximations based on Q2 2022 SII and IORP regulatory reporting which has no "flag" for LDI funds.

[22] A recent EIOPA study actually demonstrated that interest rate swaps have allowed EU insurers to smooth the volatility of their regulatory own funds. See Page 27 in: [Financial Stability Report December 2022 | Eiopa (europa.eu).]