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JOINT COMMITTEE REPORT ON

RISKS AND VULNERABILITIES IN THE EU FINANCIAL SYSTEM

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EXECUTIVE SUMMARY AND POLICY ACTIONS

After over a year since the COVID-19 pandemic started, the financial sector has largely proved resilient in the face of its severe economic impact. A range of fiscal, monetary and prudential response measures as well as the availability of capital buffers have been essential in dampening the impact of the crisis. As the recovery begins, the appropriate phasing out of exceptional crisis measures plays a key role. Despite the positive outlook, the expectations for economic recovery remain uncertain and uneven across member states. Vulnerabilities in the financial sector are increasing, not least because of side effects of the crisis measures, such as increasing debt levels and upward pressure on asset prices. Also, expectations of inflation- and yield growth, as well as increased investor risk-taking and financial interconnectedness issues, might put additional pressure on the financial system.

Next to economic vulnerabilities, the financial sector is also increasingly exposed to cyber risk and information- and communication technology (ICT) related vulnerabilities. Financial institutions have to rapidly adapt their technical infrastructure in response to the pandemic, and the crisis has acted as a catalyst for digital transformation more generally. The reliance of the financial system on technology and the scope for cyber vulnerabilities have further increased. The financial sector has been hit by cyber-attacks more often than other sectors, while across the digital economy cyber-criminals are developing new techniques to exploit vulnerabilities.

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

1. **Financial institutions and supervisors should continue to be prepared for a possible deterioration of asset quality** in the financial sector, notwithstanding the improved economic outlook**.** In light of persisting risks and high uncertainties, supervisors should continue to closely monitor asset quality and provisioning in the banking sector, in particular of assets under support schemes. This includes identifying possible practices of under-provisioning. Such monitoring is an important prerequisite when coordinating the unwinding of the various support measures.
2. As the economic environment gradually improves, the focus should in particular shift to allow a proper recognition of the consequences of the pandemic on banks' lending books, and that banks adequately manage the transition towards the recovery phase. **Banks may need to withstand possibly increasing credit risk losses, as a consequence of expiring payment moratoria and other public support measures, while maintaining adequate lending volumes.** Banks and borrowers experiencing financial difficulties should proactively work together to find appropriate solutions for their specific circumstances. That should include not only financial restructuring, but also a timely recognition of credit losses. Other financial institutions, including investment funds, should monitor their investments in corporate bonds and into private lending.
3. **Disorderly increases in yields and sudden reversals of risk premia should be closely monitored in terms of their impacts for financial institutions as well as for investors.** On the investor side, rising valuations across asset classes, massive price swings in crypto assets, and event-driven risks (such as GameStop, Archegos, Greensill) observed in 1Q21 amid elevated trading volumes raise questions about increased risk-taking behaviour and possible market exuberance. Rising yields could result in higher funding costs for banks and increase default risks for corporates via higher borrowing costs. **Supervisors, policy makers and financial institutions should also continue to develop further actions to accommodate a "low-for-long" real interest rate environment and risks its entails against the background of rising in inflation.** This includes addressing overcapacities in the financial sector.
4. **Policymakers, regulators, financial institutions and supervisors can start reflecting on lessons learnt from the COVID-19 crisis.** While the EU economy is still subject to high risks, some lessons learnt have, for example, already been reflected in EIOPA's advice on the Solvency II review. EIOPA recommends in its opinion that supervisors should have additional powers, including a macroprudential toolkit to tackle

systemic risk, such as restrictions on distributions of dividends to preserve insurers' financial position in periods of extremely adverse developments. In the banking sector, the crisis has underlined the need to advance the Banking Union, and to achieve its potential additional benefits of cross-border financial flows, private risk sharing, and exploiting economies of scale in a larger market. The ongoing crisis also highlighted the critical importance of coordinated approaches among national competent authorities.

5. **Financial institutions and supervisors should continue to carefully manage their ICT and cyber risks**. They should ensure that appropriate technologies and adequate control frameworks are in place to address threats to information security and business continuity, including risks stemming from increasingly sophisticated cyber-attacks. It will be important for EU financial institutions to achieve a high common level of digital operational resilience, and to swiftly put in place an EU-wide common framework for digital operational resilience. An important aspect of digital operational resilience is proper management of risks around ICT outsourcing, including chain outsourcing. Additionally, there is increasingly a need for financial institutions to carry out resilience testing in proportion to the risks faced and in a consistent manner.[1]

INTRODUCTION

Macroeconomic conditions improved in H1 2021, not least supported by COVID-19 vaccine rollouts and the gradual easing of containment measures in developed economies. However, a high degree of uncertainty remains, and an uneven recovery is to be expected across sectors as well as across and within countries. The EU economy is now forecast to reach pre-COVID-19 output by the end of 2022, earlier than previously anticipated. In its Spring forecast, the European Commission increased its GDP growth forecast to 4.2% in 2021 and 4.4% in 2022, with significant variations across EU member states. Simultaneously, the ECB announced to increase the pace of its Pandemic Emergency Purchase Programme (PEPP) of buying private and public sector securities, reaching EUR 241bn of net purchases in 2Q21 (EUR 186bn in Q1 2021) for a total target of EUR 1.85tn. Monetary and fiscal policy support have also facilitated debt issuances of sovereigns, corporate, and financial institutions. Against this background, asset valuations continued to rise amid, receding political uncertainty, elevated trading volumes, low volatility levels, and increasing corporate and sovereign debt levels. Also, residential real estate (RRE) prices have widely been on the rise, resulting in growing concerns about potential overvaluations in certain segments and / or regions. [2] The commercial real estate (CRE) sector already saw price corrections in certain segments and regions and it needs to be seen how it further evolves.[3]

Albeit improving, the profitability of European banks and insurers remained under structural pressure in Q1 2021. For banks, increasing exposures towards SMEs or corporations in sectors most affected by the COVID-19 crisis may also give rise to additional provisioning needs. However, an improved market sentiment and an improving earnings outlook have, among further factors, contributed to a catch-up of financials' market valuations in Q1 2021.

On top of this, the materialisation of event-driven risks (such as GameStop, Archegos, Greensill), as well as rising prices and volumes traded on crypto-assets, raise questions about increased risk-taking behaviour and possible market exuberance. Hence, concerns about the sustainability of current market valuations remain, and current trends need to show resilience over an extended period of time for a more positive risk assessment. Against this background, this report focuses on transition- and exit risks from the COVID-19 pandemic crisis. It additionally dedicates one chapter to ICT and cyber risks, which have been reinforced by the crisis.

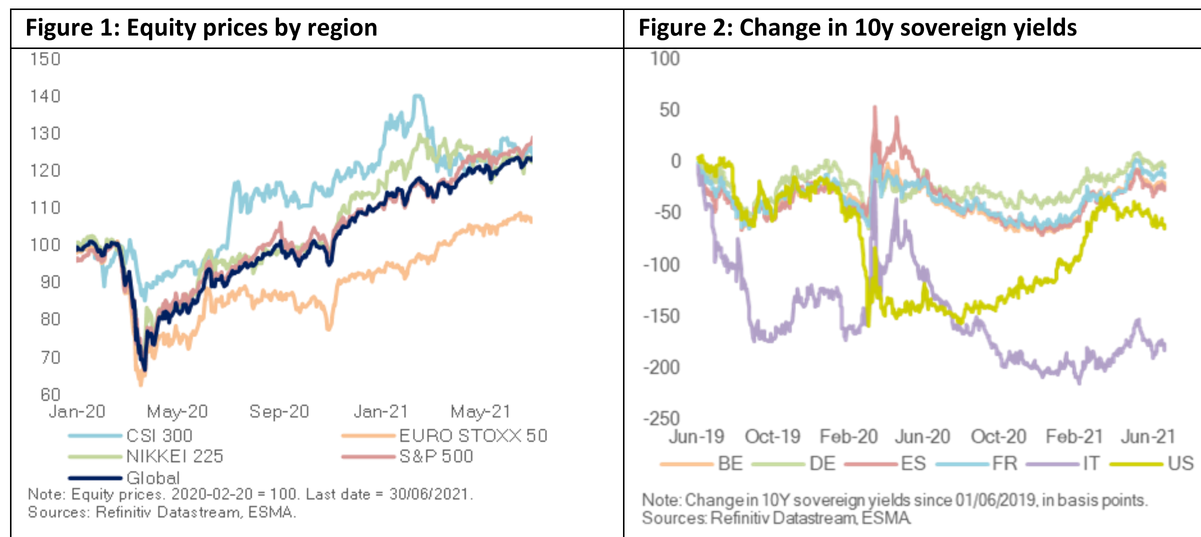
[1] As highlighted in section 4, digital operational resilience testing is one area covered by the proposed Digital Operational Resilience Act.
[2] See Euro area house price developments during the coronavirus pandemic
[3] See the ECB's Financial Stability Review, May 2021.

1 Market developments

Following the economic recovery and the COVID-19 vaccine rollout, **equity markets rallied in H1 2021**. EU equity markets increased by 14% in H1 2021, pricing at ca. 2% above pre-COVID-19 valuations. Compared to the US and other developed markets, the recovery in EU equity valuations since the COVID-19 related market stress was not as sharp (Figure 1). Expectations of upcoming inflation growth, signalled by the increase in the 10y US treasury yields, contributed to push share valuations upwards and to lift commodity prices.[4]

In Europe, market performance was heterogeneous across member states, with most EU stock market indices surpassing pre-COVID-19 valuations, while few others still lag behind. Sectoral differentiation continued to be significant as well, with shares of European financial firms experiencing the largest valuation increase (+ 26% in H1 2021 compared to H2 2020), followed by consumer discretionary and energy shares (+ 24% and 30%, respectively), linked to the improved economic outlook. Within financial firms, European bank valuations outperformed in H1 2021 (+34% with respect to H2 2020), benefitting from an improved market sentiment, an improving earnings outlook, and prospects of resuming dividend payments.

Figure 1: Equity prices by region | **Figure 2: Change in 10y sovereign yields**



Note: Equity prices. 2020-02-20 = 100. Last date = 30/06/2021.
Sources: Refinitiv Datastream, ESMA.

Note: Change in 10Y sovereign yields since 01/06/2019, in basis points.
Sources: Refinitiv Datastream, ESMA.

GameStop related events have shown the importance of how investors, including retail investors, process information when taking investment decisions. Starting in January 2021 a limited number of listed US companies experienced unprecedented surges in prices and volatility following a massive share purchase by retail investors, who also employed leverage through margin trading and purchased short-dated call options. These companies, such as GameStop, were heavily shorted due to struggling performance and concerns over the sustainability of their business models during the pandemic. In the EU, ESMA monitored the evolution of EEA shares with large short positions. These concerned a more limited number of shares with on average lower short positions than their counterparts in the US. While a few EU shares with larger short positions have seen some short-lived price spikes in the last week of January, the price increases were much more limited compared to US levels. The extreme price volatility combined with the broad participation of retail investors raises, in the first place, investor protection concerns. In view of this, ESMA issued a Statement[5], on 17 February 2021, urging retail investors to be careful when taking investment decisions exclusively on the basis of information from social media and other platforms with limited fact-checking, if the reliability and quality of that information cannot be verified.

Fixed income markets continued to improve through H1 2021, driven by the gradual economic recovery and sustained monetary policy. In sovereign bond markets, **10y Euro area (EA) sovereign yields rose slightly above**

[4] These developments seem to be partially connected with recent monetary inflows by investors looking to hedge their exposures against inflation concerns. See Securities Markets section in ESMA Trends, Risks and Vulnerabilities Report 2021 No.2

[5] See esma70-155-11809_episodes_of_very_high_volatility_in_trading_of_certain_stocks_0.pdf (europa.eu)

pre-COVID-19 levels, mostly due to spillovers from US bond market developments. Improving economic outlook, rising inflation expectations as well as the Fed projections of an increase in interest rates in 2023 markedly pushed US 10y treasury yields up. In the EU, sovereign yields evolved at a much slower pace than the US amid uncertainty about the speed of economic recovery and the ECB announcement to keep interest rates low through accelerated bond purchases (+ 52bps increase in the US vs. + 46bps in France and + 35bps in Germany in H1 2021).

Euro corporate bond valuations continued to grow above pre-crisis levels in H1 2021. The increased valuations differ markedly between High Yield (HY) and Investment Grade (IG) securities, with IG bond valuations at around 8% above pre-COVID-19 levels and HY valuations continuing to climb to 46% above pre-COVID-19 levels. This was particularly true for CCC-rated bonds, which strongly rebounded in the post-pandemic period and whose yields are now at an all-time low (ca. 7.1% as of H1 2021). Yields slightly increased, on the contrary, for IG rated bonds, which offered negative returns and appeared to be more sensitive to investors' inflation expectations.

2 DEVELOPMENTS IN THE FINANCIAL SECTOR

Investment fund flows remained positive for most fund categories in H1 2021, despite the uncertainties surrounding the evolution of the COVID-19 pandemic. Equity funds (including equity ETFs) recorded the largest inflows (4.6% of net asset value (NAV)) followed by bond funds (3.9%) and mixed funds (2.9%). This contrasts with the evolution observed in H1 2020 during the COVID-19 related market stress, where equity funds lost 2% of their NAV and bond funds close to 4%. Commodity funds received inflows representing 11.6% of their NAV in H1 2021. In contrast, **MMF faced outflows (5.2% of NAV), thus confirming a general preference for riskier assets over safer assets**. Flows partly reflect the difference in performance of the different asset classes. The annual average monthly return of equity and commodity funds was at five-year highs, reaching an average monthly return of 2.5 % as of H1 2021 for both types, due to the sustained recovery since March 2020. The combined effect of positive flows and strong performance led to a strong increase in assets under management. Funds in the EA manage a volume of EUR 17.4tn, of which EUR 5.0tn are held by equity funds, whose assets increased by more than 40% year-on-year, mostly due the valuation effects. Against the background of strong inflows (6% of NAV) and rising equity valuation, equity ETFs surged in H1 2021 as well, up to EUR 840 bn (+ 27%), bringing the size of the whole EU ETF sector to EUR 1.2 tn. Equity ETFs now represent 71% of the sector, compared to 65% at the end of 2020, followed by bond ETFs (24%).

The European insurance sector entered into 2020 overall robust and showed resilience throughout the crisis, however solvency has weakened for life businesses. Throughout 2020, the risk-free interest rate declined and, due to the longer nature of life insurers' liabilities, the value of technical provision increased more than the value of assets, hence eroding the capital buffer. Solvency positions for life insurers deteriorated after the COVID-19 outbreak, while those of non-life insurers improved. The median of the SCR ratio for life insurers slightly recovered in Q4 2020 (217%) from the low level reached in Q2 2020 (212%), however, it did not reach the initial levels observed at the end of 2019 (236%). On the other hand, the median of the SCR ratio for non-life insurers improved over the year, standing at 218% in Q4 2020 from 212% in Q4 2019.

Insurers' profitability remains positive at the end of 2020, albeit worsening compared to previous years. The median return on assets lowered from 0.59% in 2019 to 0.38% 2020, likewise the median return on excess of assets over liabilities (used as a proxy of return on equity) decreased from 7.9% in 2019 to 5.5% in 2020. Insurers' profitability deteriorated mainly in the first half of 2020 and investment return improved following the recovery of financial markets in the rest of 2020. Underwriting profitability remained positive at the end of 2020, but there were differences across lines of business. The latest developments of 2021 are not yet captured by data.

The recovery in terms of IORPs' total assets over the course of 2020 is observed, with the last two quarters exceeding pre-crisis levels. Despite fluctuations in the market values of assets, the defined benefits institutions

for occupational retirement provisions (IORPs') cover ratios remained broadly stable at around 100% throughout 2020. Moreover, there is a stabilising effect of reinsurance, considering losses of IORPs' investments observed in the first half of 2020, in particular for those countries where reinsurance is used to a significant extent. The significant exposures of IORPs to market risks, in the context of low yield environment, may imply lower than expected retirement income of their plan's members, in particular for defined contributions schemes.

The European banking sector so far also weathered the challenges and implications of the pandemic rather well. Not least attributable to sound starting positions at the beginning of the crisis, **banks managed to increase their capital and liquidity positions in the pandemic** while maintaining lending volumes which support the economic recovery, with a fully loaded CET 1 ratio of 15.5% in Q1 2021 (15.0% in Q4 2019), and a liquidity coverage ratio of 173.8% in Q1 2021 (149.8% in Q4 2019). A range of public measures to support the economy as well as supervisory measures, such as the release of countercyclical buffers and a pragmatic approach on Pillar 2 Guidance (P2G), succeeded to ensure that **banks were well positioned to provide liquidity and continued lending to households and corporates throughout the pandemic**. Lending volumes to households and non-financial corporates (NFC) slightly decreased in H2 2020, driven by tightening credit standards and subdued demand, but increased again in Q1 2021.

Albeit increasing in Q1 2021**, EU bank profitability continues to be structurally weak**. Return on equity (RoE) does not cover estimated cost of equity for many banks. Low revenues in the pandemic have added to long term challenges arising from ongoing margin compression in the prolonged low interest rate environment, high operating costs, further expenditures to meet the need for technological transformation of business models, as well as from overcapacities in the banking sector. Increasing RoE in Q1 2021 is not least driven by **contracting cost of risk,** which may prove unviable if asset quality deteriorates. While uncertainties about the pandemic and the economic recovery remain high and structural profitability challenges persist, the prospects for profitability remain subdued for the quarters to come. In the context of rising absolute yields, net interest margins could be additionally hit if the repricing of funding is faster than the repricing of assets.

3 TRANSITION/EXIT FROM COVID-19 CRISIS AND ONGOING RISKS

3.1 VULNERABILITIES IN THE FINANCIAL SECTOR

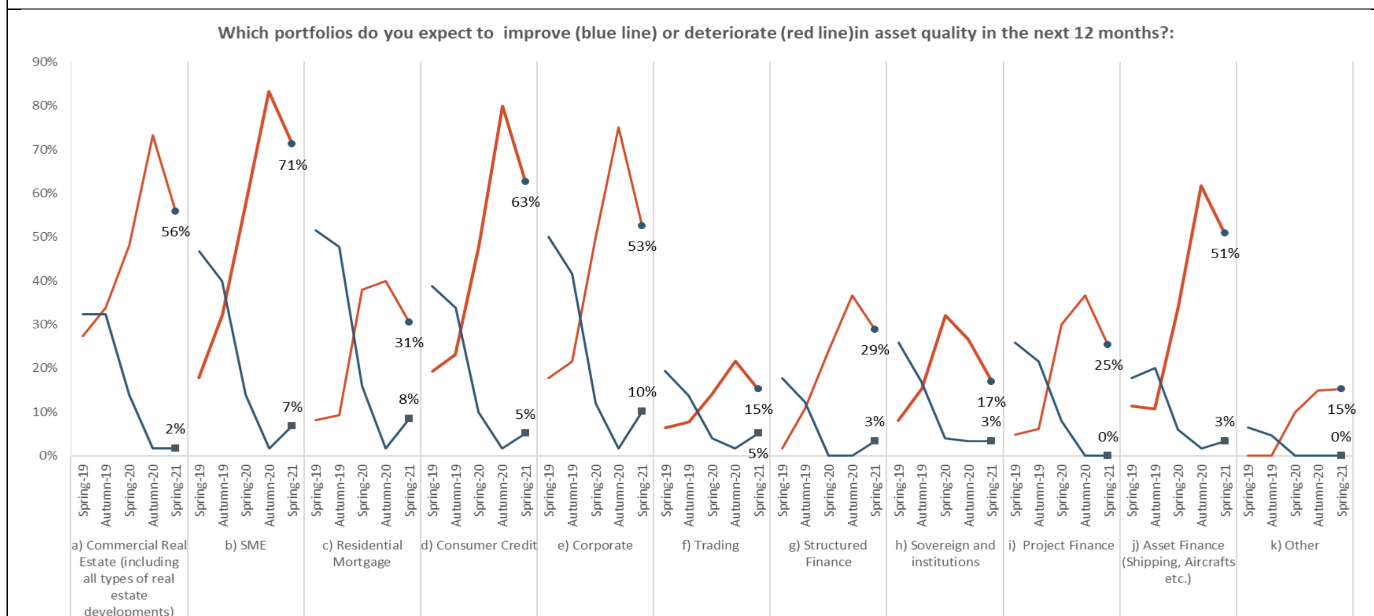
A wide range of policy responses were introduced in response to the crisis and provide breathing space to struggling borrowers and businesses. In the banking sector, these include public guarantee schemes (PGS) on loans and moratoria on loan repayments. As these schemes are temporary only, **banks need to withstand possibly increasing credit risk losses upon their expiry.** The increased interconnectedness between the financial sector, corporates and governments might be a further concern, enforced by a potentially uneven recovery across sectors and regions. New concerns have additionally been raised about interconnectedness within the financial system itself, following, e.g., the collapse of Greensill Capital.

In the banking sector, the previously expected increase in credit losses has not yet materialized. The ratio of non-performing loans (NPL ratio) continued its long-term decreasing trend and is at 2.5% in Q1 2021 (3.0% in Q4 2019). However, the majority of banks continues to expect asset quality deterioration in most lending portfolios (see Figure 3), according to the EBA spring 2021 risk assessment questionnaire. The volume of forborne loans also continues to increase. Banks are nevertheless slightly less pessimistic than they were in the previous survey. As part of its monitoring efforts, in 2021 the EBA has performed the planned EU-wide bank stress test[6], involving 50 banks from 15 EU and EEA countries and coverings 70% of the EU banking sector assets.

[6] See the EBA 2021 EU wide stress test

The exercise showed that, under an adverse scenario[7], CET1 capital ratio of the sampled banks would decrease of 485 bps on a fully loaded basis, dropping to 10.2% at the end of 2023. Credit losses explain most of the capital depletion (ca. EUR 308bn, with an impact of 423 bps). Under the adverse scenario, also profitability of banks is highly affected, mainly due to lower net interest income. The results of the stress test provide an important input to the supervisors for the assessments of banks' capital position and the decision on the potential need to set a Pillar 2 capital guidance.

Figure 3: **Banks' expectations on asset quality by portfolio – EBA RAQ, Spring 2021**



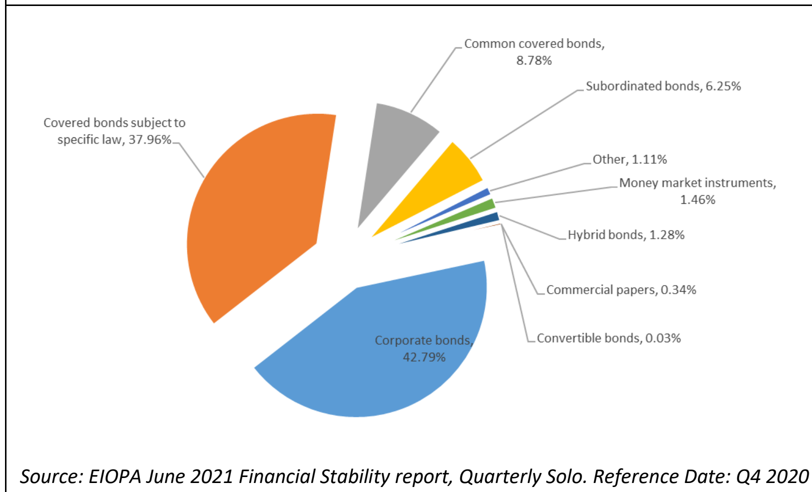
Source: EBA Risk Assessment Questionnaire (RAQ) among banks, spring 2021 edition (preliminary results)

Asset quality indicators of loans under support measures additionally show a deteriorating trend. The share of loans which were classified as non-performing strongly increased for newly originated loans under PGS (from 0.6% in Q2 2020 to 1.4% in Q1 2021,) and for loans under non-expired moratoria (from 2,5% in Q2 2020 to 3.9% in Q1 2021). The share of loans classified as Stage 2 under IFRS 9 likewise strongly increased for both loans under newly originated PGS (from 3.1% in Q2 2020 to 13.6% in Q1 2021) and under non-expired moratoria (from 16.7% in Q2 2020 to 27.3% in Q1 2021). This may indicate **risks of asset quality deterioration and increasing credit losses still to come, and may require banks to increase provisioning levels,** not least since uncertainties on the further course of the pandemic and the economic environment remain. Further asset quality challenges may arise when other public support measures, such relaxations to applications of insolvency laws introduced in some jurisdictions in response to the crisis, will expire. Also, climate risk has moved further into the focus. An EBA sensitivity analysis showed that banks have significant exposures, which are vulnerable to climate risk.[8] Going forward banks will presumably play an important role in facilitating a smooth transition to a low-carbon economy and mitigating the potentially disruptive impacts of environmental risks.[9]

[7] The adverse scenario assumes a severe macroeconomic downturn over a three-year horizon, which draws upon a prolonged COVID-19 state in a "lower for longer" interest rate environment.
[8] See the EBA's risk assessment of the European banking system.
[9] See the EBA's report on mapping climate risk – main findings from an EU-wide pilot exercise.

Vulnerabilities in the banking sector could spill over to insurers and IORPs as they are interconnected with the banking sector through investments in assets issued by banks. At the end of 2020 on average approximately 13.7% (EUR 1,179 tn)[10] of insurers' total investment is concentrated towards banks. Over the course of last year insurers have reduced their exposure by approximately two percentage points. It is smaller for the IORPs sector compared to the insurance sector, but its exposure towards the banking sector is also material; this holds especially for some specific countries. At the end of 2020, on average ca. 12% (EUR 140 bn) of IORPs total investment is concentrated towards banks.

Figure 4: **Breakdown of exposures to bank corporate bonds for the insurance sector**



Source: EIOPA June 2021 Financial Stability report, Quarterly Solo. Reference Date: Q4 2020

However, exposures to banks are mostly lower risk. Insurers and IORPs are typically exposed to banks through investments in bank bonds. For insurers, covered bonds (i.e. secured bonds) is the largest subcategory of bank bonds with a share of 47%; these bonds are characterised by low risk. The second largest subcategory is senior unsecured bonds, which at the end of 2020 were accounting for approximately 42% of the bank bonds. It is the most junior bonds that are first in line to be facing the losses when creditors are "bailed in". Junior amount to 8% of the total bank bonds exposure. Finally, undertakings have substantial cash and deposit exposures. An additional type of exposure towards the banking sector is the counterparty credit exposure on bilateral over the counter (OTC) derivative transactions that are not cleared in regulated Central Counterparties (CCPs)[11]; insurers trade these derivatives with banks. The Solvency II value of EEA insurers' bilateral OTC non cleared in CCPs with positive mark-to-market value amounts to approximately EUR 150 bn.[12]

In the fund sector, overall, risks have remained elevated amid increased risk taking and high levels of valuations across asset categories. Asset quality is also a concern for bond funds, which further increased their exposure to credit risk, reflecting the impact of the macroeconomic crisis on corporate solvency and ratings. This is especially the case for HY bond funds, which represent 5% of all bond funds and whose average credit risk profile increased further in H1 2021, indicating a portfolio now rated below BB on average. In comparison, the credit risk indicator of investment grade bond funds only slightly increased to an average rating between A and BBB. On top of this, liquidity risk is a concern for some bond funds. Cash holdings decreased: at the onset of the COVID-19 related turmoil, cash holdings peaked at 3.1 % of assets (median) before unwinding to 2.3 % in H1 2021, only slightly above the pre-COVID-19 crisis level. This also reflects the effects of managers' liquidity management strategy during stress episodes.[13]

[10] EIOPA Statistics, Solo prudential reporting Q4-2020.

[11] When the trade is centrally cleared the counterparty to the insurer become the central counterparty, in which case margins are settled in cash on a daily basis and therefore counterparty risk is non-material.

[12] The amount that could be potentially lost by insurers regards only derivatives with positive market-to-market values (SII values), i.e. those for which banks owes to insurers. Notice that these transactions are typically collateralised with either cash or with liquid assets (e.g. government bonds) and do therefore entail only a very small counterparty risk related to the residual part that might remain temporarily uncovered from collateralisation.

[13] ESMA report on liquidity risk in investment funds showed that during the period of COVID-19 market stress 8% (11% NAV) of UCITS and 11% (10% NAV) of AIFs have used temporary borrowing to meet higher redemptions. ESMA, Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds, November 2021.

Taking a longer-term perspective, financial risks from climate change are also a material factor that investment funds may find worthwhile to take into consideration. A preliminary climate risk scenario exercise indicates that funds with the most polluting portfolios can be expected to lose 9 to 18 % of affected assets while in contrast funds with the least polluting portfolios will have losses that tend to range from 3 % to 8 %.[14] Climate risk remains one of the focal points for also for the insurance and pension industry, with Environmental, Social and Governance (ESG) factors increasingly shaping investment decisions of insurers and pension funds but also affecting the underwriting of the latter.

In March 2021, the collapses of financial service companies Greensill Capital and Archegos have brought some evidence that risks arising from interconnections within the financial system can be significant. The file for insolvency of Greensill led to the suspension of redemptions of four so called supply chain finance funds (AIF) managed by Credit Suisse exposed to the firm and four other AIFs that invested in these AIFs (total NAV of around EUR 10bn), mainly due to valuation uncertainties and reduced availability of insurance coverage. Since then, the funds are in the process of being liquidated. In the case of the US-domiciled family office Archegos, leverage can present risk to counterparties. The company defaulted on margin calls related to Total Return Swap positions at various global investment banks. Following the consequent drop in the stock price, the banks which were slower to sell faced high losses. Losses are estimated to be higher than USD 10bn, including more than USD 7bn for two banks.

Finally, changes in working patterns as a result of the pandemic have highlighted operational vulnerabilities (see section 4). Dependence on chain partners by financial institutions can lead to business disruptions in times of stress, illustrating the need for collaboration to support business continuity.

3.2 FINANCIAL SECTOR EXPOSURE TO THE PUBLIC AND CORPORATE SECTORS

The increased interconnectedness between governments, businesses and banks in Europe is also a concern. The European corporate sector has been significantly hit by the pandemic, but the extraordinary monetary and fiscal stimulus has helped mitigate its impact. PGS loans have facilitated the flow of lending and have been supportive in particular for the SME sector. PGS loans of a total volume of EUR 381bn in Q1 2021 nevertheless indirectly increase sovereign exposure and may contribute to an increase of the nexus between banks and the sovereign they are domiciled in. Exposure to PGS loans is mostly concentrated to a few Member States only. In light of increasing levels of public debt in the pandemic, sovereign debt sustainability can have a direct impact on banks' balance sheets. Total direct exposure of EU banks towards general governments was at over EUR 3.2 trillion in Q4 2020. 51% of total direct exposure was towards the home country (50% in Q2 2020). Similarly, in the insurance and IORP sector the risk that certain countries are more affected by the pandemic amplifies the concentration risk, both of which also have significant home bias in their investments. Looking through the bond portfolio, holdings of insurers and IORPs' bonds continue to show significant home bias, whereas home bias for corporate bonds, representing 30% (EUR 2,677 bn.)[15] of insurers' portfolio, is lower compared to government bonds (EUR 2,748 bn.[16] of total investments). Furthermore, one third of the corporate bonds (EUR 824 bn.[17]) are issued by banks, adding additional vulnerabilities to insurers' portfolios.

Ultra-low yields, in combination with supportive measures, have contributed to a larger supply of riskier corporate assets. Most issuance of long-term rated debt instruments was concentrated around bonds rated at A and BBB levels (EUR 144 bn for A and EUR 157 bn for BBB). Lower yields on bonds across the rating spectrum,

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[14] For further details see *"Fund portfolio networks: a climate risk perspective"* in ESMA Trends, Risks, and Vulnerabilities Report No. 1 2021, pp. 73-85.
[15] EIOPA Statistics, Solo prudential reporting Q4-2020.
[16] EIOPA Statistics, Solo prudential reporting Q4-2020.
[17] EIOPA Statistics, Solo prudential reporting Q4-2020.

also due to central bank purchases of higher rated bonds, have facilitated the access to bond markets also for riskier borrowers. As a result, high-yield (HY) bond issuance marked a consistent rebound in H1 2021 (+264 yoy) compared to the low HY issuance during the COVID-19 related market stress in early 2020. Post-pandemic, the average quality of outstanding corporate continued to point towards BBB, with a significant share (40% to 60%) of rating categories below AA still having a negative outlook. Overall, A and BBB rated bonds accounted for more than 60% of total outstanding rated instruments. Total corporate bond outstanding amount continued to grow (as of mid-2021: EUR 4.8 tn for IG, EUR 1.3 tn for HY and EUR 3.5 tn for not-rated bonds), raising concerns about to which extent European firms can sustain indebtedness in the medium and long term. Overall, there are indications that companies have been issuing debt to cover revenue losses and manage cash positions against economic uncertainty. This resulted in cash hoarding accompanied by a decline in both capital expenditure and dividend payments.[18]

The concentration to lower quality bonds coupled with the uncertainty on the post crisis economic outlook could potentially be a risk transmission channel for the insurance sector, negatively affecting the credit quality of insurers' bond portfolio. The vast majority of bonds held by European insurers up to Q4 2020 are investment grade, with most rated as AA. BBB bonds amount approximately to 22% (EUR 1,097 bn) [19] of the total bonds market value in Q4-2020 that represents a significant increase compared to last year. These bonds are subject to the risk of rating downgrades below investment grade. Widespread downgrades could also lead to pressure to sell the downgraded bonds to ease capital requirements as these increase with downgrades. This could exacerbate existing upward pressure on credit spreads. Albeit IORPs have lower exposures towards fixed income assets (42%), they are likewise affected by a potential materialisation of this risk or corporate failures.

3.3 Potential risks from rapidly increasing yields in the low interest rate environment

Increasing yields raise challenges in both equity and corporate bond markets. The extent to which sustained issuance in primary equity markets can continue, depends on future market performance and levels of interest rates, as rising yields may revise equity valuations downwards. In corporate bond markets, ultra-low yields have favoured the supply of riskier assets as a result of search-for-yield behaviour. Rising yields represent a risk as they would result in higher borrowing costs, hence increasing risks of defaults. Moreover, re-pricing of financial assets may still represent a risk, especially for the HY segment. On top of this, the elevated levels of indebtedness may increase risks of debt sustainability for European corporates.

In the asset management sector, duration risk is another potential concern for bond funds, that could expose them to credit and interest rate shocks or exacerbate liquidity risk in a stressed environment. In the past, investors have compensated the declining yields induced by the low interest environment by increasing the duration of their portfolio (by 1 year since 2016, up to 7 years). However, in H1 2021 the maturity of bond fund portfolio slightly decreased.

The risk of a sudden significant reversal of risk premia is a potential risk for the financial system, including the insurance sector. If risk premia were to rise suddenly, (re)insurance groups would see the market value of their assets decreasing. The final impact on the insurance solvency positions would depend on changes in risk free rate and its impact on the value of liabilities. Moreover, insurers could be faced with a significant increase in lapses, as the economic welfare of policyholders may be reduced and/or alternative investment opportunities become more attractive to policyholders. Finally, simultaneous higher than expected inflationary pressures across all countries in an increasing-yield scenario could induce a shortfall in liability claims reserves.

[18] See Market Based Finance section in ESMA Trends Risks and Vulnerabilities report No.2 2021.
[19] EIOPA Statistics, Solo prudential reporting Q4-2020.

The scenario of a sudden increase in yields (YCU) and its implication for the insurance sector has been assessed by the 2018 EIOPA Insurance Stress Test exercise.[20] Similarly for IORPs, especially for Defined Benefit schemes, an upward shock to yields would decrease substantially their asset market values while it would have a 'positive' impact on the IORPs' pension obligations. The extent of the latter would depend on the valuation method applied. **The impact of a sudden reassessment of risk premia on the sustainability and funding of Defined Benefit IORPs and on the projected future retirement income of members of Defined Contribution IORPs has been assessed by 2019 EIOPA IORPs Stress Test[21] exercise.**

In the banking sector, rising yields are not least reflected in the yield curve for wholesale funding of various debt instruments of EU banks. They have already contributed to wholesale funding cost increases while net interest income continues to contract, as banks liabilities often reprice faster than assets. Rising yields have also contributed to heightened interest rate volatility, which has contributed to a preference of some European banks to issue their debt- and capital instruments in other currencies than EUR, especially in times of heightened EUR interest rate volatility. **Should yields remain heightened for a prolonged time, beneficial implications for banks' earnings may be expected**, as banks' net interest margins might improve in the medium term with increasing slope of the yield curve. Until Q1 2021, banks' net interest margins have continued a long-term downward trend and reached a low of 1.25%, compared to 1.39% in Q1 2020.

4 ICT AND CYBER RISKS – RECENT DEVELOPMENTS AND REINFORCEMENT DUE TO THE COVID-19 CRISIS

The use of ICT at financial institutions and their customers has rapidly increased, and the Covid-19 pandemic has fast-forwarded digital transformation in the financial sector. Financial institutions are now more heavily relying on digital and remote solutions to perform their daily operations and to deliver their services to customers. Increasing reliance on digital solutions **has also expanded the landscape of opportunities for cyber attackers, including within the financial sector.** Calculations from the Bank of International Settlements (BIS) show that the financial sector ranks high both in terms of working from home and frequency of cyber events during the pandemic when compared to other sectors.[22] Furthermore, it has the largest share of Covid-19-related cyber events after the health sector, with payment institutions, insurers and credit unions being most affected.

The financial sector was already a key target of cyber-attacks before the pandemic**.** The International Monetary Fund (IMF) estimates that the number of cyberattacks has tripled over the last decade, with financial services being the most affected industry.[23] Attackers have now access to cheaper, simple and more powerful hacking tools and the availability of mobile services for many people expands the opportunities for cyber-attacks. A successful attack on a major financial institution, or on a core system or service used by many, could spread to the entire financial system due to interconnectedness, with potential consequences in terms of business continuity, reputation and, under extreme scenarios, liquidity and financial stability.

Financial institutions and supervisors rank cyber risk among most important operational risks. The spring 2021 EBA RAQ shows that for 88% of respondents, cyber risk and data security is the most important driver of operational risk, with an increasing relevance compared to previous iterations of the RAQ. The cyber incidence reporting framework of the ECB-SSM, which requires all banks supervised by the ECB to report significant cyber incidents on a confidential basis, also reveals that the number of reported incidents continues to grow, and that

[20] EIOPA 2018 Insurance Stress Test
[21] EIOPA 2018 IORPs Stress Test
[22] Covid-19 and cyber risk in the financial sector, Aldasoro I., J. Frost, L. Gambacorta and D. Whyte, BIS, January 2021.
[23] Cyber Risk is the New Threat to Financial Stability, Elliott J. and N. Jenkinson, IMF, December 2020.

the vast majority of cases involved malicious intent. In insurance supervision cyber security risks are considered the main driver of the developments in digitalisation risks (73% of supervisors), followed by cyber underwriting risks (19%) and InsurTech competition (8%). The Covid-19 pandemic and the associated increased reliance on digital solutions and infrastructure to conduct business and telework are perceived as having increased the vulnerability of the sector to cyber-attacks, with insurers in some jurisdictions already reporting an increasing number of malware and other cyber attempts. From a supervisory perspective, competent authorities expect financial entities to intensify their efforts in managing ICT security risks, which remain the top-rated ICT risks. This includes intensified efforts to counter cyberattacks and to improve logical ICT security.

The costs of cyber incidents coupled with a tightening in data protection regulation across the world could boost cyber insurance demand. The increased demand is expected to originate from the sectors more exposed to cyber security risk, such as healthcare and the financial services, but also from individuals and families.

In response to digital transformation in Europe, the EU Commission published in September 2020 its Digital Finance Package, including Digital Finance and Retail Payments Strategies, and legislative proposals on crypto-assets and digital resilience. The legislative proposal on digital operational resilience (DORA)**,** which builds on the ESAs Joint Advices[24] in the area of ICT, **intends to put in place a comprehensive framework on digital operational resilience for EU financial entities, and to consolidate and upgrade ICT risk requirements spread over various financial services legislation** (e.g. CRD, PSD2, MiFID). It aims to achieve a high common level of digital operational resilience, and to ensure that all participants in the financial system have the necessary safeguards in place to mitigate cyber-attacks and other risks. The DORA proposal is currently going through the negotiation process of the European institutions.[25] It foresees an important role for the ESAs through the development of a series of Level 2 mandates and new tasks in the areas of ICT-related incident reporting, digital operational resilience testing, oversight of critical ICT third-party providers and crisis-management and contingency exercises.

One challenge for monitoring ICT risk is the lack of timely and comprehensive data at EU level, an area which DORA aims to address through proposals for harmonised incident reporting across the EU financial sector. Another area DORA aims to address is the **extensive dependency of the financial sector as a whole on ICT third-party service providers. DORA introduces an EU oversight framework for critical ICT third-party service providers** to address the lack of appropriate oversight powers to monitor risks stemming from ICT third-party service providers, including concentration and contagion risks for the EU financial sector. This could ensure that technology services providers fulfilling a critical role to the functioning of the financial sector are adequately monitored on a pan-European scale**.**

In February 2021, **the EU Commission moreover issued a Call for Advice (CfA) on digital finance**[26], in the context of its Digital Finance Strategy. The CfA requests advice from the ESAs on regulatory and supervisory issues relating to: (i) more fragmented or non-integrated value chains, (ii) platforms and the bundling of services, and (iii) new multi-activity groups. In addition, the CfA seeks the EBA's advice on (i) non-bank lending, on (ii) the protection of client funds and the articulation with the DGSD, and (iii) whether current approaches to group regulation and consolidated supervision that aim to address the risks of regulated financial groups at consolidated level could be detrimental to a level playing field between entities providing the same financial services as part of a group versus as a single entity.

[24] See https://www.eba.europa.eu/esas-publish-joint-advice-on-information-and-communication-technology-risk-management-and-cybersecurity
[25] See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020PC0595
[26] See 210202-call-advice-esas-digital-finance_en.pdf (europa.eu)