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**JOINT COMMITTEE REPORT ON  
RISKS AND VULNERABILITIES IN THE EU FINANCIAL SYSTEM  
MARCH 2022**

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## EXECUTIVE SUMMARY AND POLICY ACTIONS

The EU economy has shown a strong recovery from the crisis caused by the Covid-19 pandemic and the financial sector has largely proved resilient during 2021. However, the recovery seems to have been hindered by new waves and variants of the virus and new concerns regarding inflation risk, rising commodity prices and geopolitical risks. The invasion of Russia in Ukraine and its potential economic consequences are further affecting the recovery and the outlook for inflation. Additional vulnerabilities and risks facing the financial system have built up over the longer term. The persistently low interest rates and accommodative monetary policies have underpinned a search for yield behaviour that has been ongoing for some time. This makes financial markets vulnerable to a deteriorating market sentiment, particularly if financial conditions should tighten unexpectedly due to inflationary pressures. The risks in real estate markets have also increased due to a persistent price increases and higher borrowing by households. Next to this, the financial sector is increasingly exposed to, and has to adapt to, environmental risks.

Market resilience will critically depend on the ability of markets and financial institutions to deal with the Russian invasion in Ukraine and its consequences, and to withstand changes in public policy support on the monetary or fiscal side without material disruptions.

Geopolitical tensions in Eastern Europe escalated into Russia's invasion in Ukraine end-February 2022, with a set of sanctions targeting Russia as a consequence. This had a significant impact on financial markets and has strongly amplified the risks highlighted in this report. In reaction to the Russian invasion in Ukraine, global financial markets have been particularly volatile. In commodities markets, the war has significant impacts on the supply of commodities. In an environment of already high inflation, this could affect growth prospects and may pose a challenge for the monetary policy stance of central banks. The ESAs are closely monitoring developments and their implications for financial markets, financial institutions and consumers (Box 1).

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. Against the background of the ongoing geopolitical developments, financial institutions should be prepared for potential further detrimental implications. They should ensure compliance with the sanctions regimes implemented both at the EU and global level.** Where possible, supervisors should effectively coordinate on the scope and implementation of sanctions by authorities and financial markets participants.
- 2. Financial institutions and supervisors should continue to be prepared for a possible deterioration of asset quality in the financial sector.** In light of persisting risks, and a built-up of medium-term risks with high uncertainties, supervisors should continue to closely monitor asset quality, including in real estate lending, and in particular of assets which have benefitted from support measures.
- 3. Potential further 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.** Rising yields could result in higher funding costs for banks and higher credit risks yet improve the profitability outlook given banks' interest rate sensitivity. Rising yields could also increase credit risks for corporate lending via higher borrowing costs. Credit risks related to the corporate and banking sector remain a main concern also for insurers as well as for the credit quality of bond fund portfolios. Fund liquidity also needs to be closely monitored should market liquidity deteriorate in case of wider market stress. Supervisors, policy makers and financial institutions should also continue to develop further actions against the background of rising inflation. Stress test results help supervisors to identify vulnerabilities of the insurance- and banking sector, and find ways to improve its resilience, such as the EIOPA EU-wide insurance stress test of 2021 and the EBA 2021 EU-wide bank stress test.
- 4. Retail investors are of particular concern.** Their participation in financial markets has increased substantially in recent years. This diversification offers opportunities but also comes with risks, and

growth, and without realising the high risks involved. Where disclosures are ineffective, these risks are compounded.

5. **Financial institutions need to further incorporate ESG considerations into their business strategies and governance structures.** They should consider ESG risks in their risk appetite and internal capital allocation process. Financial institutions should continue to develop methodologies and approaches to test their long-term resilience against ESG factors and risks. In addition, data gaps continue to challenge the incorporation of ESG considerations into financial institutions' risk management, investment processes and investment advice. Public disclosures based on the current Non-Financial Reporting Directive (and in future the Corporate Sustainability Reporting Directive), as well as data collections through bilateral engagement with counterparties are additional relevant data sources for ESG risk assessment and monitoring.
6. **Financial institutions should strengthen their cyber resilience measures and prepare for a potential increase in cyber-attacks and their consequences going forward.** The frequency of cyber incidents is high in historical terms. Geopolitical tensions are playing an increasing role in the technological and digital space, with impacts felt across geographies and sectors, and heightened cyber risks following the Russian invasion in Ukraine. Moreover, the COVID-19 pandemic contributed to a rapid increase in connectivity and further reliance on technology highlighting the importance of preparedness and response in the event of a cross-border cyber-incident. In this context, the ESAs welcome ESRB Recommendation to start prepare for a pan-European systemic cyber incident coordination framework for relevant authorities, for an effective EU-level coordinated response in the event of a major cross-border cyber incident that could have a systemic impact on the Union's financial sector<sup>1</sup>.

**The Covid-19 pandemic continues to spur digital transformation of the financial sector and has highlighted the importance technology plays in allowing the financial system to operate.** These changes bring many benefits, but also expand the potential scope and impact of cyber incidents, whether or not malicious. Also, cyber security is threatened by the increasingly volatile geopolitical environment. 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.

**Following the Russian invasion of Ukraine and the severe sanctions imposed on Russia by the EU, US and other countries, the EU face an acute and elevated level of cyber risk.** Although as of mid-March there has not yet been any indication of major cyber incidents within the EU, firms, governments and organisations across the Union could be targeted. They should be alert and prepared for possible cyberattacks, as they risk facing unavailability of critical systems and disruption of infrastructure and/or manipulation or destruction of vital information. Potential cyberattacks might not be limited to the financial sector. In a severe scenario access to basic services could be impaired, including financial services, and personal data could be compromised.

The legislative proposal on digital operational resilience (DORA), which builds on the ESAs Joint Advice in the area of information and communication technology (ICT), has entered the trilogue phase<sup>2</sup> in January 2022. DORA aims to establish a comprehensive framework on digital operational resilience for EU financial entities, and consolidate and upgrade ICT risk requirements spread over various financial services legislation (e.g. CRD, PSD2, MiFID). The ESAs set out in their joint response<sup>3</sup> to the European Commission's February 2021 Call for Advice on Digital Finance a number of actions to respond to technology-facilitated structural changes in the EU financial sector and the potential risks arising (e.g. in relation to consumer protection, financial integrity and ultimately financial stability).

<sup>1</sup> See [ESRB Recommendation on a pan-European systemic cyber incident coordination framework for relevant authorities](#)

<sup>2</sup> [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST\\_5297\\_2022\\_INIT&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST_5297_2022_INIT&from=EN)

<sup>3</sup> See: <https://www.eba.europa.eu/esas-recommend-actions-ensure-eu%E2%80%99s-regulatory-and-supervisory-framework-remains-fit-for-purpose-digital>

**Box 1: Russian invasion in Ukraine (Update as of 17 March 2022)**

**Geopolitical tensions in Eastern Europe intensified into military action in February 2022 with Russia invading Ukraine, with a set of sanctions targeting Russia as a consequence.** These include the freeze of assets of state-controlled banks and of a number of Russian individuals; exclusion of some Russian banks from SWIFT; prevent the Russian central bank deploying international reserves.

**Since the invasion, global financial markets have become highly volatile,** with uncertainty and sensitivity to events continuing to prevail. Since the beginning of 2022, European equity markets experienced significant price fluctuations and bouts of volatility. The Eurostoxx 50 declined by 10% year to date, going through a partial recovery after an initial sharp contraction in reaction to the war news. The VSTOXX volatility index climbed to a maximum peak of 48% in the first week of March (+23ppts YTD overall), yet still below levels observed in March 2020. EU bank share prices declined by ca. 10% in the first two weeks since the beginning of the Russian invasion, mostly in light of deteriorating economic prospects and possible implications for asset quality and profitability. The market turmoil coincided with investor willingness to switch to safer assets or accept lower yields. In this respect, EA sovereign bond markets saw yields substantially declining for a number of Member States, with spreads continuing to widen. From the second week of March, sovereign yields started to rise again. In corporate bond markets, spreads jumped across rating categories.

**The escalation of the Russian military actions and the exacerbation of the sanctions on imports of fossil fuels from Russia contributed to push commodity prices up to values unobserved since the financial crisis.** Year to date, both crude oil and natural gas prices soared by +29% and +38% respectively, as well as those for agricultural goods (+25%) and metals (+20%). Higher prices for goods and services could penetrate into the real economy through lower consumption and investments, negatively impacting growth. Moreover, a drop in supply of Russian commodities to the EU could cause a shortage of agricultural products and raw materials, impacting economic activity. **These trends could further amplify inflationary pressure** since, by end-2021, higher commodity prices had already contributed to substantially higher inflation rates. In a context of already elevated inflation, this may pose a challenge for the monetary policy stance of central banks.

**Following sanctions, EU market participants exposed to Russian assets would likely encounter substantial risks.** The downgrade of Russian ratings to junk by the major three credit rating agencies exposes investors holding Russian debt to higher credit risk. As additional part of the sanctions package, the EU has banned top credit rating firms from rating RU sovereign debt and companies. Moreover, the Russian ban on payments to foreign investors in Ruble denominated securities has frozen these assets making them illiquid and difficult to sell by investors, and raising concerns over technical default of sovereign assets. The massive drop in prices and liquidity of Russian financial instruments (-40% YTD for equities, +500 bps for sovereign bonds) creates serious valuation issues for EU investment funds exposed to these securities. To date, more than 100 EU Russia-exposed funds (15bn EUR of combined assets) have temporarily suspended redemptions and a number of ETFs tracking Russian benchmarks have suspended share creation.

**Bank sector exposure to Russia and Ukraine appears limited on an EU level and country level.** EU banks' exposure towards Russian counterparties was around EUR 72bn (0.3% of total exposures) as of 3Q 2021, and around EUR 10bn for Ukraine, corresponding to around 0.3% of total assets of the EU banks. However, exposures are concentrated in a few countries, and few banks report a considerable share of their exposures towards Russia and Ukraine, mainly by loans provided through subsidiary entities. While first order credit risk exposure directly related to the conflict appears manageable, medium-term risks related to declining macroeconomic activity, including as a result of sanctions, might increase credit risk across sectors and institutions.

**The direct exposures of insurers and IORPs towards Russia are contained, but second round effects, e.g. cyber risk, can potentially prove relevant.** In terms of direct impact (i.e. assets and liabilities), preliminary analysis suggests that exposures are relatively contained on aggregate for the sector. Nevertheless, for some undertakings the exposures seem to be relatively more material. Crucially, cyber risk increases, since potential Russian cyber operations are now more likely, although this is more difficult to capture quantitatively.

## INTRODUCTION

The post-Covid-19 economic- and financial market recovery appears to have come to a halt towards the end of 2021, after the economy rebound with an expected GDP growth in the EU of 5.3% in 2021.<sup>4</sup> The resurgence of the pandemic and the Russian invasion of Ukraine led market participants to revisit their growth- and market expectations. Further rising geopolitical tensions could additionally affect economic growth through lower consumer and business confidence as well as supply and demand shocks. Coupled with potential constraints in gas and oil supplies, these also add to inflationary pressure. While macroeconomic conditions continued to improve through 4Q21, there are signs that the recovery is coming to a hold, with the Russian invasion of Ukraine, increased inflation, and lingering concerns about the further course of the pandemic.

Commodity prices experienced particularly strong growth, with a broad-based index gaining 11% between June and December 2021 and further price increases and high volatility linked to the Russian invasion in Ukraine. Higher energy prices and tightening labour markets have led to substantially higher inflation rates. The annual increase in headline consumer price indices rose to a four-decade high in the US in February, while they set a new record high in the Euro Area in January.<sup>5</sup>

The scope for potentially continued higher inflation raises may pose a challenge for the monetary policy stance of central banks. The continued accommodative monetary policy in Europe helped to sustain corporate and sovereign debt levels, which continued to build up, as government spending to support the recovery declined only marginally in EU Member States. Resilience of financial markets will critically depend on the ability of markets to deal with the Russian invasion in Ukraine and its consequences in eastern Europe, and to withstand changes in public policy support on the monetary or fiscal sides without material disruptions. The profitability of EU banks improved in 1H21, not least attributable to lower impairment costs and improving net fee and commission income.<sup>6</sup> In line with the economic recovery, the outlook for EU banks' asset quality has gradually improved in the course of 2021. Similar improvements in financial metrics could be observed for EU insurers going into the third quarter.

**The risks outlined throughout the remainder of the report reflect a generic risk assessment before the Russian invasion in Ukraine, mostly referring to the initial reporting period of this risk report, i.e. the second half of 2021.**

## 1 MARKET DEVELOPMENTS

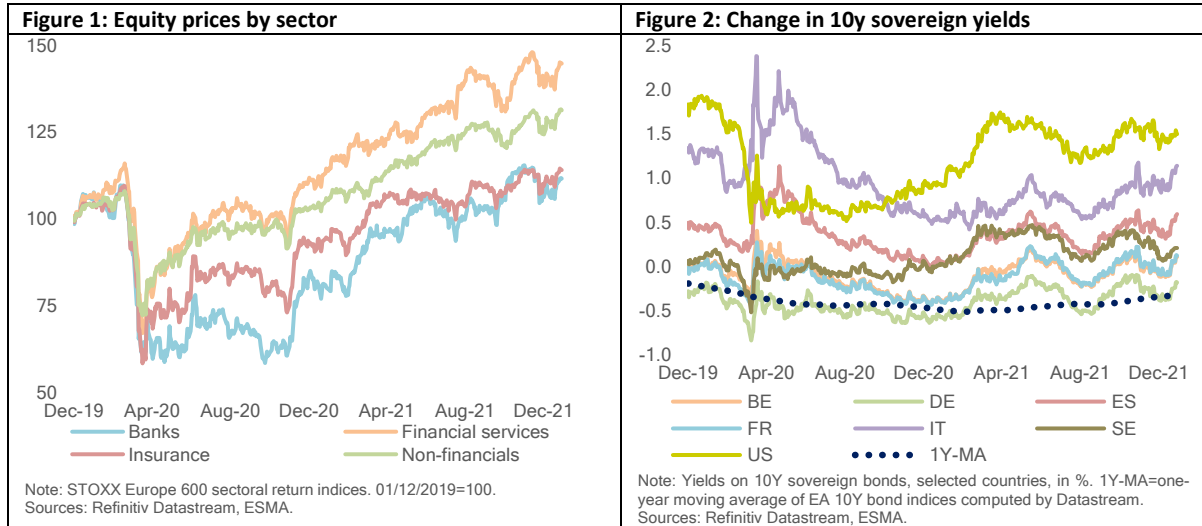
**The developments around the Covid-19 pandemic continued to be an important driver of global equity markets.** In 2H21, equity valuations further increased overall despite slowing down in 4Q21, linked to the news flow around the Chinese real estate developer Evergrande, the resurgence of the pandemic, and investor concerns over potential monetary policy tapering. These factors contributed to continued concerns over potential equity overvaluation intensifying risks of market correction. Nonetheless, most equity indices continued their sustained growth in 2H21 of +4 % globally, +12 % for the S&P 500 and +16% for the Eurostoxx. Volatility on equity markets ended the year below its long-term average, yet it slightly increased in December showing sensitivity towards the risk of market corrections. Price-earning ratios continued to be elevated, with EU and US ratios surpassing their ten-year historical average by 43% and 42% respectively at the end of November, pointing towards potential overvaluation of equity markets. Sectoral differentiation widened for European stocks in 2H21, with sectors of technology, financials and healthcare shares continuing to outperform (+12.0 %, 10.6 % and 10.5 % respectively), while returns in other sectors such as telecommunications (-1.0 %) lagged behind. European bank and insurance valuations continued their catch-up with financials (+10.8 %), benefitting

<sup>4</sup> See European Commission, "[Winter 2022 Economic Forecast](#)", January 2022.

<sup>5</sup> See US Bureau of Labor Statistics, "[Consumer Price Index](#)", and Eurostat, "[Inflation in the Euro area](#)".

<sup>6</sup> See EBA Risk Assessment of the European Banking System, December 2021

from increased profitability, resuming dividend payments in 4Q21, and the positive impact of rising yields. Shares from other financial services also continued their increase (Figure 1).



In fixed income markets **stronger inflationary pressure towards the end of the year has driven a moderate increase in nominal yields, especially for sovereign bonds. Corporate bond market valuations continued to grow, but at a slower pace.** After a decline in 3Q21, driven by improved economic sentiment, EA sovereign yields started to rise again in 4Q21 (led by IT (+30bps) and ES (+15 bps) vs.+7bps in the US (Figure 2)), mostly linked to the increase in inflation and to uncertainty on the economic impact in the EU of the new COVID-19 variant. Additionally, spreads against the German Bund have slightly increased as well. In 2H21, the corporate investment grade (IG) segment valuation stood 10 % above pre-crisis. IG valuations were mostly sustained by BBB-rated bonds (+17 % above pre-crisis valuations), while higher quality securities (AAA to A-rated) showed a declining trend towards levels observed before the pandemic. The preference for higher yields highlights continued investor risk appetite with signs of exuberance prevailing in the HY segment, whose value stood at +49 % compared to February 2020. Against the background of rising inflation and potential monetary tightening, corporate bond spreads widened across ratings towards end-2021. The withdrawal of emergency measures on the monetary side could have a negative impact on the liquidity of concerned debt and hence deteriorate the value of bond funds holdings. The combination of prolonged low interest rate environment and elevated valuations leave lower rated bonds particularly vulnerable to adverse yield and growth shocks.

**Concerning developments in crypto assets, total market capitalisation reached a record EUR 2.6tn in November 2021 before retracting below EUR 2tn in January 2022.** Though the prices of the two largest crypto assets reached all-time highs in November, they each dropped by more than 30 % since then. Current macroeconomic conditions, with low interest rates and growing inflation expectations, make crypto assets particularly appealing to investors. As the CA market continues to expand, risks to investors and financial stability have also grown. Pending the entry into force of the proposed Markets in crypto-assets (MiCA) regulation, the majority of crypto-assets and the selling of products or services in relation to crypto-assets are unregulated in the EU, meaning that consumers typically do not benefit from any safeguard or legal protection.

## 2 DEVELOPMENTS IN THE FINANCIAL SECTOR

**Financial market performance was also reflected in the sustained growth of the asset management sector.** In 2H21, EA investment funds were managing EUR 18.6tn of assets, up from EUR 16.5tn in 2H20 (+12.8%) owing to both valuation effects and investor flows. The rise in assets is particularly visible in equity funds with assets under management (AuM) increasing by 46% year-on-year, up to EUR 5.6tn. From a longer-term perspective, equity funds have doubled their size in six years, driven both by valuations and inflows. In terms of inflows, the

trend has accelerated, with cumulative flows for equity funds over the last year (EUR 414bn) exceeding the five preceding years combined (EUR 320bn). Closely connected to the overvaluation concerns in the underlying equity markets, such investments may be at risk in case of significant market repricing. Within fixed-income funds, flows into loan funds (13% of NAV) and inflation protected funds (32% of NAV) were significant, albeit from a low base (EUR 100bn of AuM altogether).

**In 2H21 the size of the EU money market funds (MMF) sector kept stable at around EUR 1.4tn.** MMFs exposed to private debt such as Low Volatility Net Asset Value (LVNAVs) and Variable Net Asset Value (VNAVs) accounted for around 90% of total assets (45% for each type) in October, with a limited role played by Public Debt Constant Net Asset Value funds (10% of MMF assets, all in non-EU currencies). MMFs recorded outflows in September (around EUR 50bn), reflecting end-quarter seasonal patterns, while cumulative net flows in the second half of 2021 were positive across MMF types (EUR 76bn). Liquidity levels for VNAVs and LVNAVs were stable at high levels.

**The European banking sector has demonstrated its resilience in the pandemic, and the outlook for the sector has slightly improved.** Banks managed to increase their capital and liquidity positions since the beginning of the pandemic, and supported the recovery by maintaining adequate lending to households and corporates in the pandemic. The total volume of loans and advances extended to households has slightly increased in 3Q2021 compared to the beginning of the pandemic (1Q2020). Lending to non-financial corporates (NFC) slightly decreased, but some lending volume was replaced by increased corporate debt issuance. In this context, asset quality was on an improving trend in 2021, with a decreasing non-performing loan (NPL) ratio. Lending to small and medium enterprises (SMEs) increased by over 10% in the pandemic (between 1Q2020 and 3Q2021). Public guarantee schemes (PGS) introduced across Europe have been an important tool to support increased lending volumes in the pandemic, and, coupled with moratoria on loan repayments, to support struggling borrowers.

**EU bank profitability has, at 7.7% return of equity (RoE) in 3Q2021, recovered to levels above those reported before the pandemic, after a sharp contraction in 2020.** The trend of improving profitability continued in 4Q 2021. Lower impairments, driven by the economic recovery and pandemic-related support measures, are the main driver of improved profitability, in addition to higher fee and commission income, not least from asset management services. Cost of risk has also improved, and was, at 0.47% in 3Q2021, substantially lower than in Q3 2020 (0.74%) and at same level as before the pandemic started (in 4Q2019). Going forward, responses to the EBA RAQ suggest that over 70% of responding banks expect that increasing interest rates will have a positive impact on their profitability. Some structural challenges for long-term sustainable profitability of banks nevertheless remain.

**For the insurance sector, profitability and solvency positions also remain robust.** After six quarters of increasing trend, solvency positions for groups decreased in Q3 2021, but still remained above their 4Q2020 level. For life solo undertakings, the median of SCR ratios slightly moved upwards to 226% in 3Q2021 (219% in 2Q2021). Profitability indicators showed positive results for the first half of 2021. The distribution of return on excess of assets over liabilities shifted upward, with a median standing at 10.8% in 2Q2021 (6.4% in 4Q2020). The high returns obtained shifted the median closer to the pre-COVID levels. For some EEA countries, the increase of floods during the summer of 2021 raised concerns regarding profitability risk, although the impact is considered manageable. As part of its monitoring efforts, in 2021, EIOPA has conducted EU-wide insurance stress test<sup>7</sup> focused on a prolonged COVID-19 scenario in a “lower for longer” interest rate environment and evaluated its impact on the capital and liquidity position of the entities in scope. The stress test has shown that, on aggregate, European insurers can maintain their financial health even amid harsh economic conditions. The capital component of the exercise confirmed that the main vulnerabilities for the sector stem from market shocks, and, specifically, from the decoupling of the risk-free rate and risk premia. The insurance industry demonstrated that it has tools at its disposal to cope with adverse market and economic effects (reactive management actions).

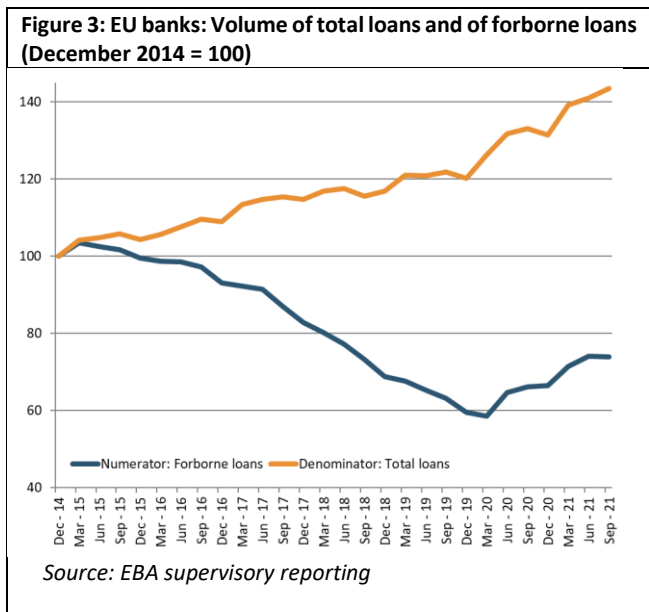
Long-term guarantees measures, which are part of the Solvency II regulation, helped absorb part of the severe but plausible shocks, limiting the drop in participants’ solvency ratio. Nevertheless, the stress test also revealed that a section of the market still heavily relies on transitional measures, which, unlike long-term guarantees, are to be phased out by 2032.

**Maintaining appropriate funding levels in the IORP sector remains a concern going forward.** Cover ratios (i.e. assets covering liabilities) in the defined benefit (DB) IORPs sector remain overall stable in the first quarter of 2021, compared to end-2020 values. Looking ahead, the different scenarios around the Covid-19 waves along with the financial market developments, could adversely affect DB schemes’ cover ratios. Market risks remains the top concern for IORPs. This is due to the vulnerability of financial markets to a potential repricing of risk if global liquidity conditions change, to high inflation expectations and to sovereign debt sustainability concerns.

### 3 VULNERABILITIES IN THE FINANCIAL SECTOR

**Risks in the financial sector remain elevated – with credit and valuation risks remaining of concern and combining with emerging risks, such as the impact of increasing inflation.** The current stretched asset valuations in some market segments cause high sensitivity of financial markets to any unexpected negative news. The impact of inflationary pressure and repricing risk are under close monitoring. The escalation of geopolitical tensions has further increased cyber risk. The risk of cyberattacks and their consequences remains a key vulnerability for the EU financial sector, and underline they need to strengthen cyber resilience.

**In the banking sector, asset quality should be carefully managed.** The share of loans classified under stage 2 under the International Financial Reporting Standard (IFRS 9) was, at 8.7% in 3Q2021, substantially higher than before the pandemic (6.8% in 4Q2019). Yet it has started to slowly decline in the last quarters. **With regards to loans subject to public guarantee schemes (PGS) and under current moratoria, an increasing share of these loans are being classified under stage 2 or as non-performing loans (NPL).** Banks reported an elevated Stage 2 allocation for both categories, at 33.6 for loans under current moratoria% and 20.1% for loans subject to PGS<sup>8</sup>. The volume of forborne loans has also increased by 10% between 4Q2020 and 3Q2021.



**The NPL ratio of loans to some sectors more affected by the pandemic,** such as, e.g., accommodation and food services, as well as entertainment and recreation, has increased in the pandemic. Yet it started to decline in the last quarter. Coupled with a declining share of stage 2 loans and a stabilizing volume of forborne loans, these indications may point out that **asset quality deterioration may have eased, including for sectors most affected by the pandemic.** It nevertheless requires continued close monitoring in light of persisting medium-term risks..

**In the insurance sector, credit risks of corporations and potential second round effects for banks remain the main concern.** So far, public support measures have succeeded in preventing widespread defaults and somewhat alleviated concerns. However, several uncertainties could amplify corporate vulnerabilities and lead

<sup>8</sup> See [the EBA Risk Dashboard Q3 2021](#)

to a possible scenario of repricing and downgrades. **A scenario analysis of increased credit risk accompanied by rating downgrades show that the EEA insurers' corporate bond portfolio is resilient, with some pockets of risk in portfolios with especially long durations.**<sup>9</sup> In the analysis, the overall losses in market value on the corporate bond portfolio amounted to 5.6%, which corresponded to 7% of total excess of assets over liabilities. The distribution across undertakings however showed a number of undertakings that incur losses above 10% on the corporate bond portfolio. Further, for a small number of undertakings losses exceeded 50% of excess of assets over liabilities. While these losses did not consider any hedging, effects on the liabilities (for instance due to long term guarantees (LTG) measures) or hold to maturity strategies, they still pointed to pockets of risk in certain portfolios, e.g. with especially long durations. Moreover, the analysis focused on corporate bonds only, while in a scenario as described above, losses on other assets such as e.g. equities are likely to arise. The results also showed that in the scenario assessed, the largest share of the losses can be attributed to the increase in spread, rather than from rating migrations (which include both downgrades and upgrades).

**Insurers hold a significant portion of their investments in assets issued by banks (14% of total EEA insurers' investments)**<sup>10</sup>. Therefore, the European insurance sector could suffer significant losses in the event of a hypothetical bank failure. In this respect, empirical analysis<sup>11</sup> of the direct impact of a potential bank failure on the insurance sector shows high heterogeneity from country to country and from bank to bank. While for most banks there is little effect, a few banks are notably interconnected with the insurance sector. Their failure could lead to significant contagion and subsequent drop in the Solvency II ratios of some insurers. However, the overall direct contagion risk in case of idiosyncratic shocks appears currently contained. In case of a failure of a few banks (only idiosyncratic failures are assumed, simultaneous failures of several banks are not considered), this could lead to contagion towards individual insurers under the most severe scenario.

**Looking at bond investment funds, exposure to credit risk also increased in 2H21, following the trend observed in 1H21.** This is especially the case of HY funds whose portfolios remain rated below BB on average. During 2H21, the likelihood of materialisation of credit risk has decreased in the short term, amid an improved macroeconomic environment, but as observed since the Russian invasion in the Ukraine, portfolios remain vulnerable to a deterioration in credit risk and risk appetite by investors, amid stretched valuations in fixed income markets.

**The exposure to the real estate market and a potential repricing remain an additional concern for the financial sector.** The EU residential real estate market is experiencing rapid growth mainly driven by the prevailing home working practises, very low borrowing rates, and economic recovery, with prices most likely exceeding their fundamental values. Despite the economic contraction of 2020, EU housing prices strongly increased, and continued to increase in 2021, driven by the residential real estate market. The volume of EU banks' mortgage lending increased by over 4% between 1Q2020 and 3Q2021. Volumes of commercial real estate (CRE) lending also remained at a high level, and continues to increase in some countries. Commercial real estate may pose additional challenges, as it remains vulnerable to structural changes in the post-pandemic era. **Overly stretched valuations in financial and housing markets might prompt abrupt corrections, not least in an environment of rising yields.** Imbalances in the real estate sector could affect the banking sector to a larger degree, and thus, the financial sector as a whole even if EU insurance undertakings have low direct exposures to the residential real estate market<sup>12</sup>. Not least in response to risks related to real estate exposure, some Member States have increased countercyclical capital buffer requirements or systemic risk capital buffer requirements.

**Vulnerability to inflation and possible increase in government bond yields are two important factors in assessing the risk in the current economic environment.** Inflationary pressures may pose additional medium-

<sup>9</sup> [Financial Stability Report December 2021 | Eiopa \(europa.eu\)](#)

<sup>10</sup> [Financial Stability Report July 2021 | Eiopa \(europa.eu\)](#). This figure underestimates the total exposure because it does not account for holdings of banks' securities through investment funds holdings. This identification is not possible with Solvency II data from the Quantitative Reporting Templates.

<sup>11</sup> [Financial Stability Report July 2021 | Eiopa \(europa.eu\)](#) (First special theme - Contagion risk analysis of the impact of a bank's failure on the insurance sector).

<sup>12</sup> [Financial Stability Report December 2020 \(europa.eu\)](#)

term challenges if they translate into higher interest rates which could negatively impact the debt-servicing capacity of firms and households. It is important for banks and supervisors to consider risks stemming from real estate lending as well as the potential for abrupt repricing of risk in financial markets. Banks should ensure that newly originated loans are of appropriate credit quality, are appropriately priced, and maintain prudent credit standards. Supervisors should assess and monitor banks' sensitivity to interest rate movements and consider measures to curb excessive risk taking.

**For the insurance sector, unanticipated inflation is a source of risk for non-life insurers, especially those in long-tail lines of business.** The non-life business, due to potential coverage of claims in real terms, is challenged in terms of inflated loss ratios (in the short-term); this could be more pronounced for long-tail business, which tend, also, to be the more material part in terms of technical provisions e.g. general liability. On the other hand, if the risk-free interest rate (i.e. the discount factor) adjusts to inflation, inflation can be beneficial for life insurers, insofar they are characterized by negative duration gaps (i.e. liabilities with longer duration than assets) and nominal liabilities. Nevertheless, lines of business affected by the recent pick up of inflation cannot be easily isolated, since the effects could potentially be heterogeneous depending on the particular sector or economy. Also, if the risk-free interest rate adjusts to inflation, this could be translated in net asset value depreciation for non-life insurers which tend to have positive duration gaps (i.e. assets with slightly longer duration than liabilities). For both life and non-life business, inflation encompasses, among others, strong underwriting and business generation risks due to the decrease in savings' capabilities and purchasing power of policyholders.

**As monetary easing will normalise, asymmetric yields movements could emerge within Europe.** The fade out of monetary easing, knock on effects from increasing interest rates in US and also concerns on the long-term sovereign debt sustainability could potentially trigger an increase in the spreads. **The tail risk of a sudden repricing of the sovereign risk in relation to debt sustainability and fiscal stress considerations could have an impact on insurers.** Insurers are big players in the sovereign bond market, being vulnerable to sovereign bonds' price volatility. The result of EIOPA's empirical analysis<sup>13</sup> on a potential abrupt increase in sovereign credit spreads indicates relatively contained impacts, but yet material, on insurers' assets over liabilities ratios.

**In the investment fund sector, duration risk increased in a context of rising inflation expectations.** The portfolio duration of bond funds has not increased in 2H21, remaining generally higher for IG bond funds (7.2 years) than HY funds (4 years). However, increasing inflation expectations make bond funds more vulnerable to an interest rate (and/or a credit spread) shock. The consequences of such a shock would then depend on the behaviour of market participants, and especially on the risk that such losses trigger investor redemptions. Against this backdrop, **inflation risk is expected to affect primarily fixed income funds with a long duration**, while equity funds should be more protected against inflation, provided that companies are able to raise prices to preserve their operational margins. Similarly, tangible assets such as commodities should be relatively protected from inflation. Finally, fixed-income investors can also respond by shortening duration and switching to inflation-protected funds.<sup>14</sup> Inflation protected funds especially invest in government inflation-linked debt. Inflation concerns are relatively less relevant for MMFs due to their short-term nature.

**Besides the vulnerabilities mentioned above, ongoing concerns in the financial sector also remain:**

- Liquidity risk remains a concern, in particular for corporate bond investment funds. In a context of ongoing market uncertainty and decreasing portfolio quality, corporate bond funds need to be prepared for future adverse shocks, as highlighted by ESMA<sup>15</sup>. Corporate bond funds have maintained the proportion of their cash holdings stable, with median cash holdings representing 2.2% of their portfolio. This level is sensibly lower than during the COVID-19 related market stress in 1Q20 (3%) but higher than pre-crisis (1.6%). In this

<sup>13</sup> [Financial Stability Report December 2021 | Eiopa \(europa.eu\)](#)

<sup>14</sup> BIS, Inflation hedging portfolios in different regimes, 2011

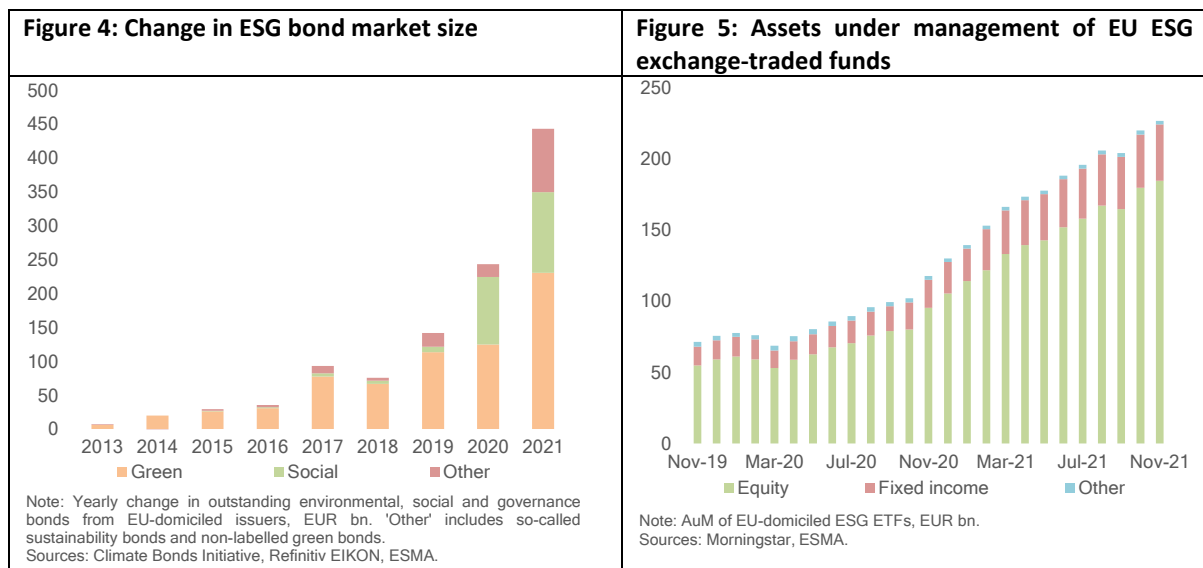
<sup>15</sup> ESMA, Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds, November 2020.

respect, ESMA has conducted a Common Supervisory Action (CSA) on Liquidity Risk Management in 2020 and published its Final Report in March 2021<sup>16</sup> and has implemented the May 2020 ESRB Recommendation on liquidity risks in corporate debt and real estate funds<sup>17</sup>. Furthermore, it is continuing its supervisory convergence work amongst NCAs in the area of valuation of less liquid assets.<sup>18</sup>

- Structural challenges for long-term sustainable profitability of banks and insurers. Return on equity (RoE) of banks is often still below the estimated cost of equity (CoE) in many regions. Also, net interest margin (NIM) remains at historically low levels, although their downward trend has recently stopped. Some sources of improving profitability, such as higher fee and commission income, may moreover not be sustainable. While rising interest rates in an environment of increased inflation may improve the prospect for interest income, it may also increase funding costs and operating costs of banks. In the insurance sector, the low interest rate environment is still weighing on the profitability of guarantee products. The continuation of the pandemic with new coronavirus variants and resumed social distancing measures are likely weigh on the economy and on lending growth, and risks to further affect profitability.

#### 4 DEVELOPMENTS IN ESG RELATED RISK

**The growth in ESG-related financial markets and products has accelerated again.** In 2H21 only, Environmental, Social and Governance (ESG) bond markets grew by 19%. While growth was essentially driven by green bond issuances until 2020, issuers are increasingly turning to other types of ESG bonds (Figure 4). The EU social bond market, in particular, has expanded from EUR 20 billion in 2019 to EUR 239 billion in 2021, driven by the implementation of the SURE programme of the European Commission.<sup>19</sup> The share of ESG bonds of total bank issuances has substantially increased as well over the past few years. In 2021, they accounted for around 19% of the total volumes issued, up from approximately 10% in 2020. Beyond growing investor demand, the increasing use of ESG bonds in funding reflects banks’ efforts to integrate ESG risk considerations into their risk management. Moreover, there has been growing interest in sustainability-linked bonds (SLBs)<sup>20</sup>, with EUR 32bn issued in 3Q21 only, which was more than 2020 as a whole.<sup>21</sup>



<sup>16</sup> [ESMA assesses the compliance with UCITS liquidity rules and highlights areas for vigilance \(europa.eu\)](https://www.europa.eu/press-communication/12/12/2021/ESMA-assesses-the-compliance-with-UCITS-liquidity-rules-and-highlights-areas-for-vigilance)

<sup>17</sup> [esma34-39-1119-report on the esrb recommendation on liquidity risks in funds.pdf \(europa.eu\)](https://www.esma.europa.eu/press-communication/12/12/2020/esma34-39-1119-report-on-the-esrb-recommendation-on-liquidity-risks-in-funds)

<sup>18</sup> See [ESMA common supervisory action with NCAs on valuation of UCITS and open-ended AIFs](https://www.esma.europa.eu/press-communication/12/12/2020/esma34-39-1119-report-on-the-esrb-recommendation-on-liquidity-risks-in-funds).

<sup>19</sup> See European Commission Q&A, European Commission to issue EU SURE bonds of up to €100 billion as social bonds, [https://ec.europa.eu/commission/presscorner/detail/hu/qanda\\_20\\_1809](https://ec.europa.eu/commission/presscorner/detail/hu/qanda_20_1809)

<sup>20</sup> Unlike use-of-proceeds bonds such as green bonds, SLBs require issuers to set out entity-wide sustainability performance targets. If the issuer fails to meet these targets, penalties apply (e.g. in the form of higher coupon rate).

<sup>21</sup> See Climate Bonds Initiative (2021), [Sustainable debt market: Summary Q3 2021](https://www.climatebondsinitiative.com/en/initiatives/sustainable-debt-market). USD amounts converted to EUR using 1.15 FX rate.

ESG fund assets were up 30% in 2021 with EU investors increasingly turning to sustainable investing, including in the retail investors segment, with the exchange-traded fund (ETF) segment growing strongly. ESG ETF assets stood close to EUR 250 billion in 4Q21, a three-fold increase in just 18 months (Figure 5). However, many ESG ETFs track benchmarks that are constructed using ESG ratings, which raises several issues. First, a high level of disagreement between ESG rating providers implies that ESG benchmark composition varies based on the choice of ESG rating provider.<sup>22</sup> Second, ESG benchmark administrators rely on a wide array of methodologies to construct ESG benchmarks, which retail investors may not be fully aware of, while such differences can lead to different outcomes. Third, high overlap can be observed between the constituents of some ESG and non-ESG benchmarks – with some ESG ETFs displaying a 99% correlation with the S&P 500.<sup>23</sup> These issues raise the prospect of misalignment between investor expectations and the environmental and social impact of investments tracking ESG indices.

**Aimed to improve sustainability-related disclosures in the financial service sector, the ESAs have developed Joint draft Regulatory Technical Standards (RTS) on ESG disclosure<sup>24</sup>.** These RTS aim to strengthen protection for end-investors and improve the disclosures that they receive from a broad range of financial market participants and financial advisers, as well as regarding financial products including when those products make investments that are aligned with the EU Taxonomy. This also helps to respond to investor demands for more transparency on sustainable products and reduce the risk of greenwashing. At this stage, the timing for the effective entry into force of the RTS is nevertheless uncertain.

**In the banking sector, ESG-related risks may drive conventional financial risk categories, such as credit, market and operational risk, including reputational risk, through a number of transmission channels.** Banks' exposures to borrowers affected by extreme climate-related physical events (physical risk) might, e.g., be subject to increased credit risk. Banks might also be subject to transition risks derived from the impact through policies and consumer activism intended to achieve a greener and more sustainable economy.

To support the preparedness for and resilience of the banking sector to ESG risks, the EBA has published a Report on management and supervision of ESG risks for credit institutions<sup>25</sup>. The report provides institutions with common definitions of ESG risks and their transmission channels, identifies evaluation methods that are needed for effective risk management, and recommends integrating ESG risks into business strategies, governance and risk management as well as supervision. The EBA expects banks to incorporate ESG risk-related considerations in their strategies, objectives and governance structures, and to manage these risks as drivers of financial risks in their risk appetite and internal capital allocation process. Banks already have made some progress, e.g. by starting to recognise ESG risks as drivers for traditional financial risk categories, e.g. for credit risk, and by starting to integrate ESG risk considerations into their risk management.

**The price of EU carbon emission allowances has soared in 2021,** from under EUR €30 per metric tonne of CO<sub>2</sub> (tCO<sub>2</sub>) to above EUR 80 tCO<sub>2</sub> in December. There are several factors driving this trend, including rising gas prices from supply disruptions leading to higher demand for coal (which requires the purchase of additional emission allowances), and more stringent EU climate policy targets.<sup>26</sup> This has contributed to losses in European energy utilities, already squeezed by rising gas prices but fixed electricity prices.<sup>27</sup> Meanwhile, the growing share of

<sup>22</sup> Billio, M., Costola, M., Hristova, I., Latino, C. and Pelizzon, L. (2020): Inside the ESG ratings: (Dis)agreement and performance.

<sup>23</sup> See Bloomberg (2021), "Many ESG funds are just expensive S&P 500 indexers", Opinion: <https://www.bloomberg.com/opinion/articles/2021-05-07/many-esg-funds-are-just-expensive-s-p-500-indexers>

<sup>24</sup> See [Joint Regulatory Technical Standards on Taxonomy-related product disclosures](#) (October 2021) and the [Joint Regulatory Technical Standards on ESG disclosure standards for financial market participants](#)

<sup>25</sup> See the [EBA Report on management and supervision of ESG risks for credit institutions and investment firms](#)

<sup>26</sup> See ESMA (2021), [Preliminary report on EU emission allowances and derivatives thereof](#).

<sup>27</sup> See Bloomberg (2021), Energy supplier collapses go global as prices keep rising.

financial market participants to the EU emission allowance market has fuelled concerns over the potential impact of speculative strategies on level of carbon prices and their volatility.<sup>28</sup>

**The world natural disaster balance for 2020 (USD 210 bn) shows losses much higher than in the previous year, with almost two thirds of the losses in 2020 uninsured, particularly in developing countries. Further, extreme weather events continue to put significant pressure on non-life insurers and are expected to become more frequent and severe due to climate change. The insurance sector plays a significant role in closing the protection gap** as insurance products could be used as risk-transfer mechanisms to absorb financial losses related to climate risks. Currently, only 35% of the total losses caused by extreme weather and climate-related events across Europe are insured.<sup>29</sup>

As long-term investors, **insurers also have the potential to contribute to the transition towards a low-carbon economy.** On one side, insurers are incorporating risks in their underwriting and investment activities as part of an enhanced approach towards ESG factors, but also invest in green assets.

In order to further enhance EIOPA's stress testing framework, EIOPA published a new paper setting out methodological principles that can be used to design bottom-up stress test exercises to assess the vulnerability of insurers to climate change (physical and transition risks).<sup>30</sup>

#### **BOX: EIOPA sensitivity analysis of climate-change related transition risks**

EIOPA conducted a sensitivity analysis of climate-change related transition risks for the European insurance sector, that employs a "what if" scenario analysis based on the investments in high and low-carbon industries that are considered highly climate-policy relevant.<sup>31</sup> The analysis suggests that **equity investments in high-carbon sectors might be quite sensitive to this risk.** The impact on bonds is lower, reflecting the fact that profitability declines are likely to impact equity prices first (Figure 6 and 7).

However, in terms of overall impact, the insurance sector also stands to potentially gain from the transition through investments in renewable power generation. Further, the overall impact on the balance sheets is also counter-balanced by the fact that the high-carbon investments considered in the analysis account for a small part of the total investments of European insurers.

Fund investments are important because they represent a large share of insurers' investments. It is therefore also of interest to identify the degree to which fund-investments represent material holdings in ESG-funds. As reported in ESRB (2021), looking at a sub-sample of insurers' investment (overall, the subsample accounts for 816 billion EUR of fund holdings (40% of total holdings in equity, fixed income and mixed funds)), it was possible to identify that 17.3% of insurance investments into investment funds are labelled as ESG funds (7% of total holdings). Funds belonging to unit-linked or index-linked business exhibit a slightly higher share at 17.6% than neither unit- nor index-linked funds with 16.7%. This is higher than the share of ESG funds in the universe of EU funds, which amounts to 11% and cannot completely be explained by equity funds being overrepresented in the sample.

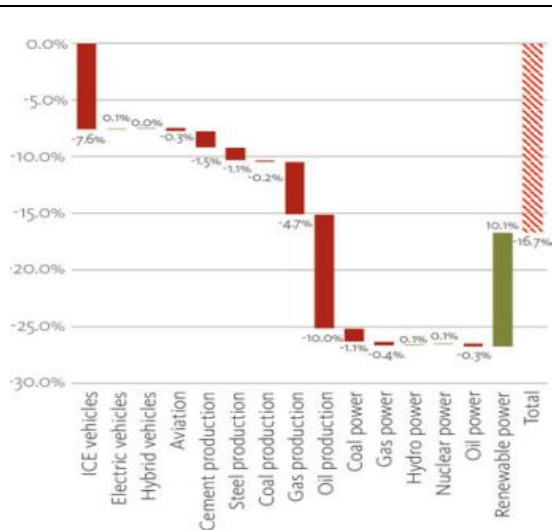
<sup>28</sup> See European Commission, 'Tackling rising energy prices: a toolbox for action and support', <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2021%3A660%3AFIN&qid=1634215984101>

<sup>29</sup> EIOPA (2019). Staff discussion paper: Protection gap for natural catastrophes.

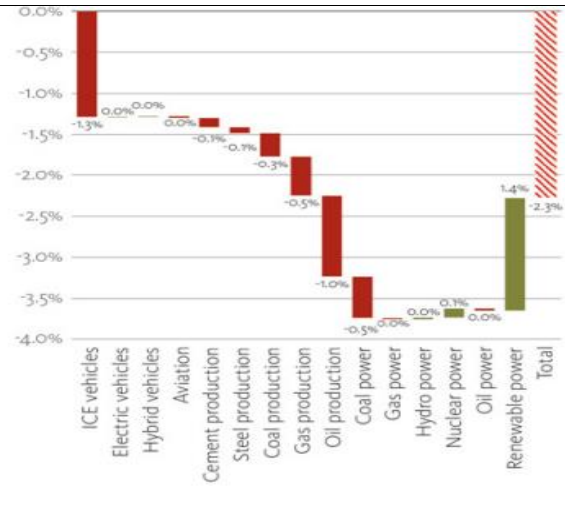
<sup>30</sup> Link to be added once the paper is published.

<sup>31</sup> See <https://www.eiopa.europa.eu/media/news/sensitivity-analysis-of-climate-change-related-transition-risks-eiopa%E2%80%99s-first-assessment-report>

**Figure 6: Change in value of re-priced equity**



**Figure 7: Change in value of re-priced corporate bonds**



Source: Solo insurance undertakings reporting under Solvency II and 2 Degree Investing Initiative. 2019 Q4  
 Note: Look-through is applied where possible. Values given as share of initial holdings in assets for which a price-adjustment was applied. Non-unit linked investments. Main scenario tested. EEA excl. UK. ICE vehicles: internal combustion engine vehicles.