EIOPA-BoS/23-26
7 February 2023

RISK DASHBOARD

January 2023[1]

Risks	Level	Trend (Past 3 months)	Outlook[2] (Next 12 months)
1. Macro risks	high	→	↗
2. Credit risks	medium	↓	↗
3. Market risks	high	→	↗
4. Liquidity and funding risks[3]	medium	→	↗
5. Profitability and solvency	medium	→	↗
6. Interlinkages and imbalances	medium	→	→
7. Insurance (underwriting) risks	medium	↑	↗
8. Market perceptions	medium	→	→
9. ESG related risks[4]	medium	→	↗
10. Digitalisation & Cyber risks[5]	medium	→	↗

Note: The structural break as of Q1 2020 related to the Brexit withdrawal agreement and represented with a dashed line indicates a break in the number of undertakings of the time series and rebalance of the country weights. Additionally, adjusted time series for EU27 before Q1 2020 are also disclosed to reflect potential variations driven by the structural break in the sample.

---

[1] Reference date for company data is Q3-2022 for quarterly indicators and 2021-YE for annual indicators. The cut-off date for most market indicators is beginning of January 2023.
[2] The Outlook displayed for the next 12 months is based on the responses received from 22 national competent authorities (NCAs) and ranked accordingly to the expected change in the materiality of each risk (substantial decrease, decrease, unchanged, increase and substantial increase).
[3] From October 2021, a new ESG related risks category and an enhancement of the liquidity and funding risks category are included in the EIOPA's risk dashboard.
[4] Environmental, Social and Governance (ESG) related risks. For further details please see footnote 3.
[5] From January 2022, a new Digitalization & Cyber risks category is included.

Key observations:

- Risk levels for the European insurance sector remain broadly constant.
- Macro-related risks remain relevant for the insurance sector. Forecasted GDP growth at global level further decreased to -0.06%. The average CPI forecasts have been revised slightly downward, amid remaining at high level. Unemployment rate for the main geographical areas remained at low level. Weighted average of 10 years swap rates increased. Central banks continue the normalization of their monetary policy: the average global policy rates have increased to 2.7% and asset purchases continue at a slower pace than previous quarter and will further slowdown.
- Credit risks remain at medium level at a decreasing trend driven mainly by the slight decrease of the CDS spreads for unsecured financial and non-financial corporate bonds. Insurers' relative exposure to non-financial corporate and financial secured bonds slightly decreased in Q3-2022, while exposure to sovereign and financial bonds remained broadly stable. The median average credit quality of insurers' investments remained stable.
- Market risks remain at high level. Volatility in the bond market is very high and equity market remained at higher level than last year average. The median insurers' exposure to bonds slightly decreased while median exposure to equity stays relatively unchanged while the median exposures to property slightly increased in Q3 2022.
- Profitability and solvency risks remain at medium level. Life insurers reported a decrease in their SCR ratio for the second consecutive quarter, while the SCR ratio of non-life insurers experienced a slight increase.
- Interlinkage and imbalance risks remain at medium level. Due to the current increase of interest rate, insurers realized market to market losses on those derivative positions aiming at hedging interest rates declines.
- Insurance risks remain at medium level with an increasing trend. The year-on-year premium growth for life insurance continued decreasing reaching the negative territory, while for non-life a significant increase was observed following the increasing trend experienced in the past quarters. The median exposure of the loss ratio increased.
- Market perceptions remain at medium level. Insurance life and non-life stocks overperformed. The median price-to-earnings ratio of insurance groups remained around the same level. The median of CDS spreads of insurers decreased. Insurers' external ratings remained broadly stable since the last assessment.
- ESG related risks remain at medium level. Insurers mantained their relative exposure into green bonds, while the ratio of investments into green bonds over the total green bond outstanding slightly decreased. The median exposure to climate relevant assets remained around the same levels. Exposure at flood risk has been slightly decreasing in the high end of the distribution from 2020 to 2021. The cumulative catastrophe loss ratio slightly increased in Q3-2022.
- Digitalisation and cyber risks are at medium level. The materiality of these risks for insurance as assessed by supervisors remains unchanged with cyber security and hybrid geopolitical conflict as main concerns. The frequency of cyber incidents impacting all sectors of activity, as measured by publically available data, increased since the same quarter of last year. Cyber negative sentiment indicates an high amid decreasing concern in the last quarter of 2022.

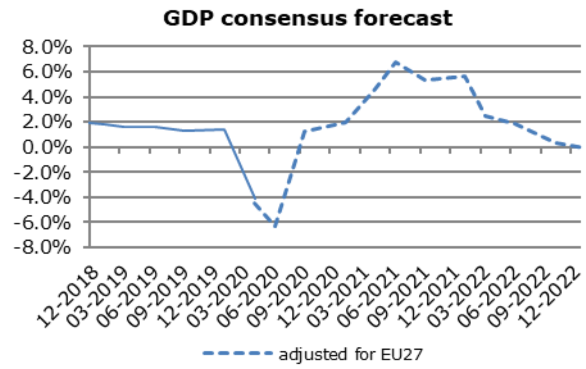
Macro risks

Level: high

Trend: constant

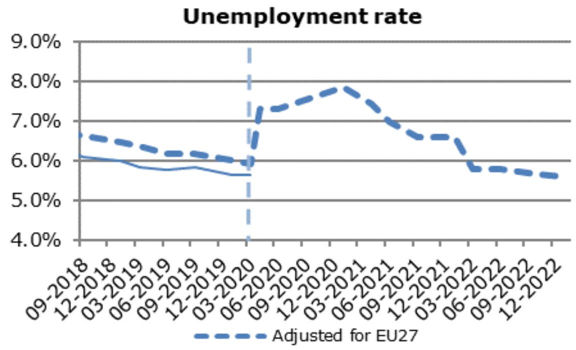
Macro-related risks remain relevant for the insurance sector. Forecasted GDP growth at global level further decreased to -0.06%. CPI forecasts have been revised slightly downward, amid the average remained at high level. Unemployment rate for the main geographical areas remained at low level. Weighted average of 10 years swap rates increased. Central banks continue the normalization of their monetary policy: the average global policy rates have increased to 2.7% and asset purchases continue amid at a slower pace than previous quarter and will further slowdown.

Forecasted GDP growth for the next four quarters decreased from 0.34% to -0.06%. Expectations of EU GDP growth for the forecast horizon are lower than the global average. Compared to the previous assessment, forecasts have been revised downwards.



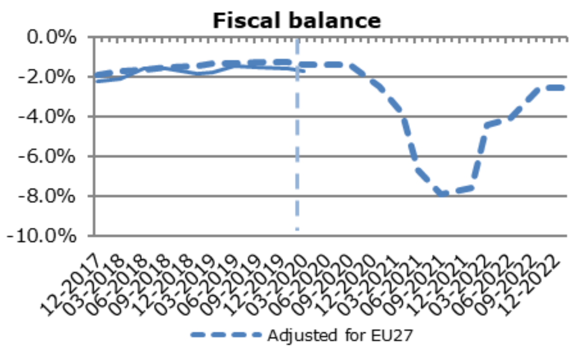
Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States, BRICS. The dashed line indicated a break after UK exit and rebalancing of the country weights.
Source: Bloomberg Finance L.P.

The latest data on unemployment rates across geographical areas hover around 5.6%.



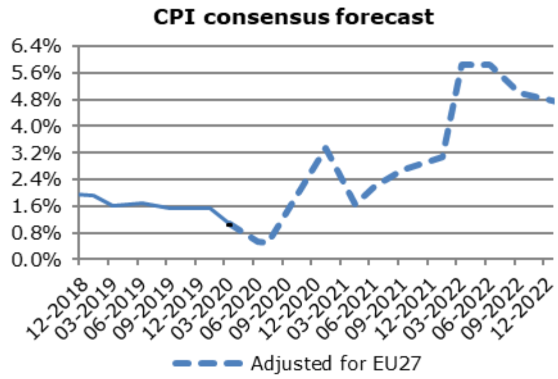
Note: Weighted average for EU, Switzerland, United States, China. The dashed line indicated a break after UK exit and rebalancing of the country weights.
Source: Refinitiv

Fiscal balances hover around -2.5% of GDP.



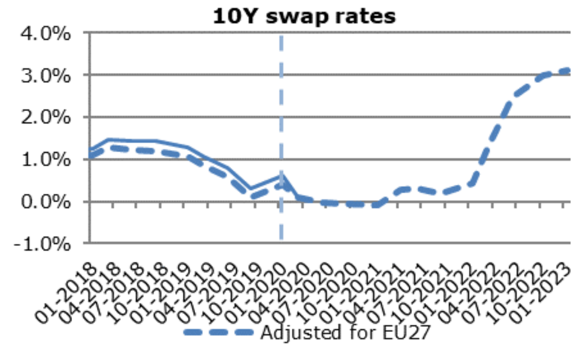
Note: Weighted average for EU, UK and United States. The dashed line indicated a break after UK exit and rebalancing of the country weights.
Source: Refinitiv

Forecasted inflation for the next four quarters slightly decreased to 4.7%.



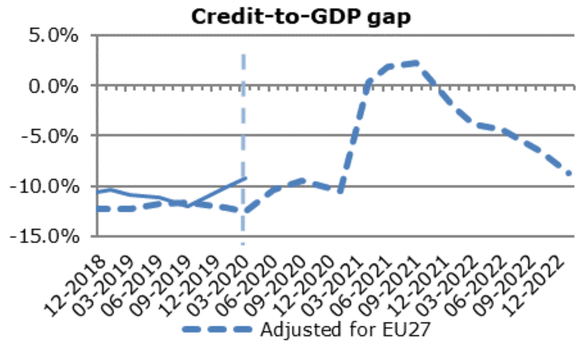
Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States, BRICS. The dashed line indicated a break after UK exit and rebalancing of the country weights.
Source: Bloomberg Finance L.P.

The indicator on the 10 years swap rates across main currency increased up to 3.1% in the beginning of 2023.



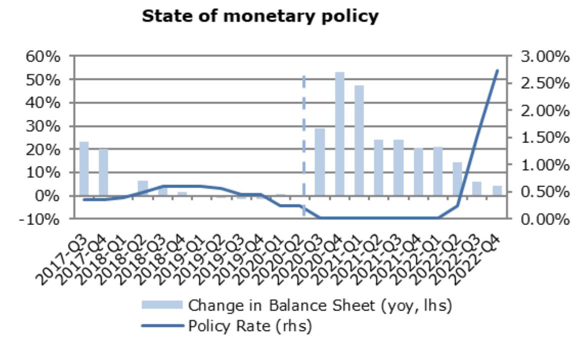
Note: Weighted average for EUR, GBP, CHF, USD. The dashed line indicates a break after UK exit and rebalancing of the country weights.
Source: Refinitiv

The credit to GDP gap across main geographical areas decreased to -8.7%. The credit to GDP gap in the Euro Area also decreased to similar levels.



Note: Weighted average for Euro area, United Kingdom, Switzerland, United States, China. The dashed line indicates a break after UK exit and rebalancing of the country weights.
Source: BIS

Monetary policies across all major central banks continue to adjust their expansionary actions. The average policy rate significantly increased from 1.51% to 2.74%. The balance sheets of the major central banks have been increasing at a slower pace.



Note: Weighted average for Euro area, United Kingdom, Switzerland, United States. The dashed line indicates a break after UK exit and rebalancing of the country weights.
Source: Bloomberg Finance L.P.

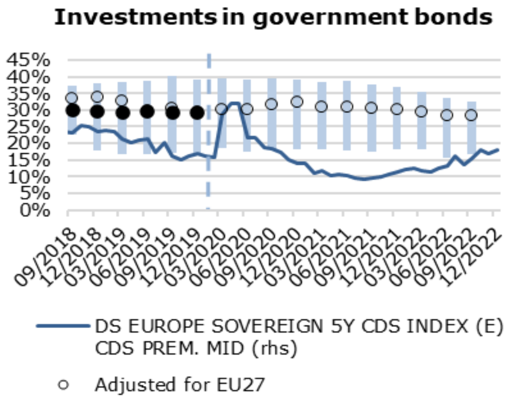
Credit risks

Level: medium

Trend: large decrease

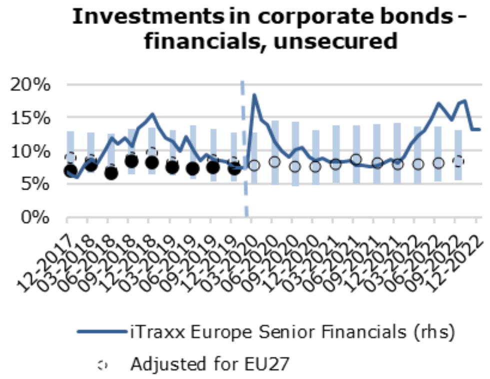
Credit risks remain at medium level. The CDS spreads decreased for unsecured financial and non-financial corporate bonds, while slightly increasing for government and secured financial bonds in the last quarter of 2022. Insurers' relative exposure to non-financial corporate and financial secured bonds slightly decreased in Q3-2022, while exposure to sovereign and financial bonds remaining broadly stable. The median average credit quality of insurers' investments remained stable. The median of below investment grade assets (with a credit quality step higher than 3) in insurers' portfolios remained stable.

In the last quarter of 2022, CDS spreads for European sovereign bonds slightly increased. Insurers' median exposures to this asset class hover around 28% of total assets in Q3-2022.



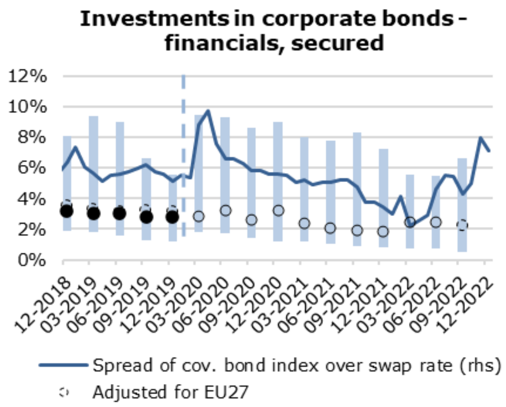
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Refinitiv, QFG ($N_{2022\ Q3}$=88)

Spreads for unsecured financial bonds decreased in the last quarter of 2022. Median exposures of EU27 insurers' investments hover around 8.3% in Q3 2022.



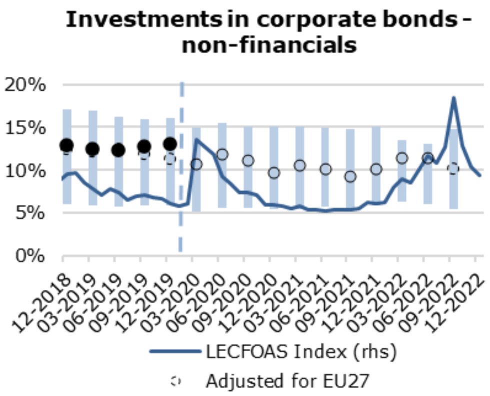
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. . The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Refinitiv, QFG ($N_{2022\ Q3}$=78)

Spreads for secured financial bonds increased to 15bpts. Median exposures of EU27 slightly decreased to 2.2% of total assets in Q3-2022.



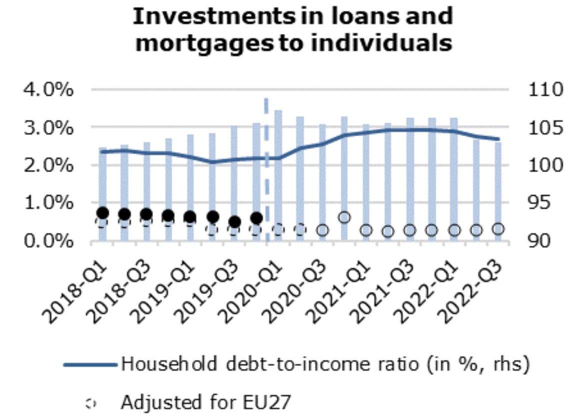
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure.
The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Bloomberg Finance L.P., QFG ($N_{2022\ Q3}$=72)

Spreads for non-financial corporate bonds decreased to 140bpts. Median exposure to non-financial corporate bond for EU27 slightly decreased to 10% of total assets in Q3-2022.



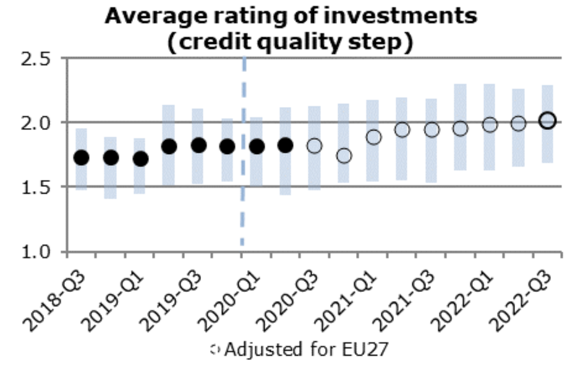
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure.
The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Bloomberg Finance L.P., QFG ($N_{2022\ Q3}$=78)

The household debt-to-income ratio hovered around 104%. The median exposures to loans and mortgages remained at 0.29% of total assets for Q3-2022.



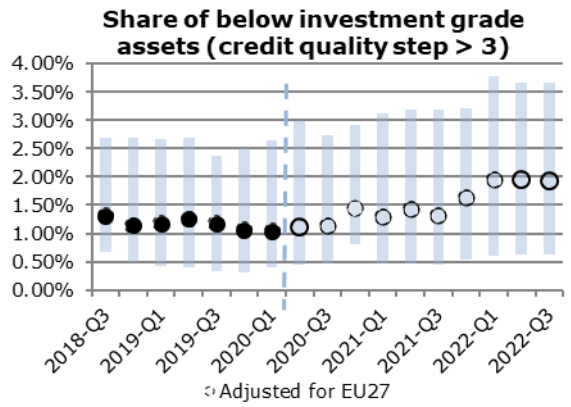
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure (weighted average of EA and UK). The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions. Source: QFG ($N_{2022\ Q3}$=88), ECB

The median average credit quality step hovered around 2, corresponding to an S&P rating between AA and A.



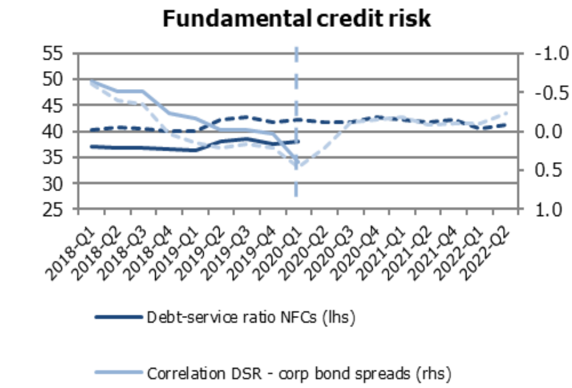
Note: Distribution of indicator (interquartile range, median). The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG ($N_{2022\ Q3}$=85)

The median of below investment grade assets (with a credit quality step higher than 3) hover around 1.9% in Q3-2022.



Note: Distribution of indicator (interquartile range, median). Includes both internal and external credit ratings. Time series revised - denominator now excludes assets for which no rating shall be reported.The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG ($N_{2022\ Q3}$=88)

The correlation between the debt-service ratio of non-financial corporations and corporate bond spreads slightly increased. The debt service ratio hovers around the same level for all the countries considered.



Note: Correlation between the debt-service ratio of non-financial corporates and the spread of non-financial corporate bonds based on a 12-quarter rolling window.
The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: BIS, Bloomberg Finance L.P.

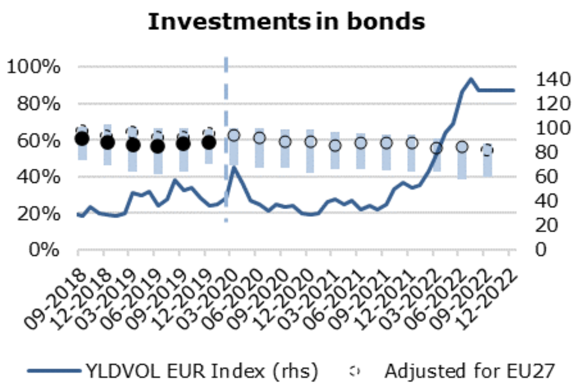
Market risks

Level: high

Trend: constant

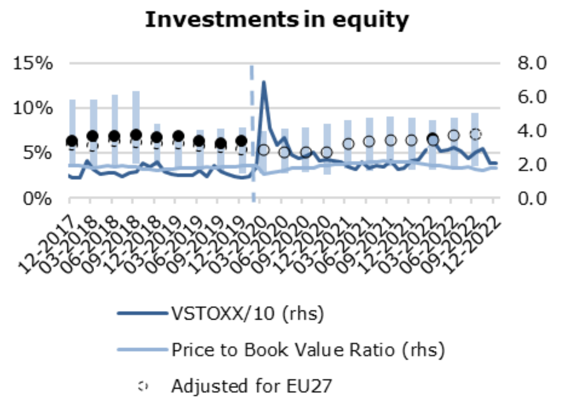
Market risks remain at high level. Volatility in the bond market is very high and in the equity market remained at higher level than last year average. Median exposures to property slightly increased. The median insurers' exposure to bonds slightly decreased while median exposure to equity stayed relatively unchanged in Q3 2022.

The index on the expected yield volatility for the Euro bond hovered around 130bps in the last quarter 2022. Median exposures to bonds slightly decreased to 54% of total assets in Q3-2022.



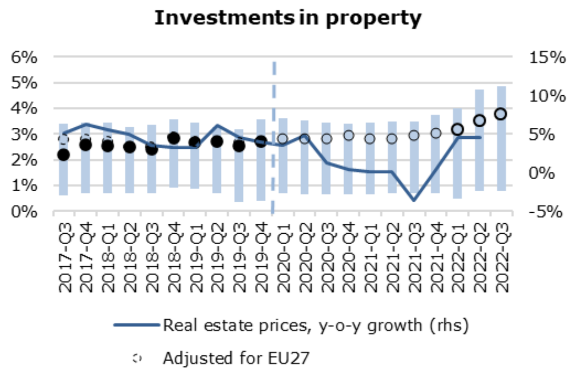
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure.The volatility indicator was discontinued and will need to be revised. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Bloomberg Finance L.P., QFG ($N_{2022\ Q3}$=88)

Volatility of equity prices hovered around the same level as in the last quarter of 2022. Median exposures to equity hover around 7% of total assets in Q3-2022.



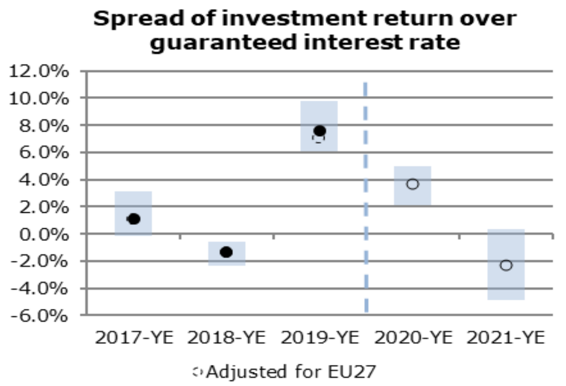
Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: Bloomberg Finance L.P., QFG ($N_{2022\ Q3}$=88)

The indicator on the annual growth rate of property prices is at 4.54% in Q2-2022. Median exposures to property slightly increased from 3.4% to 3.8% of total assets in Q3-2022.

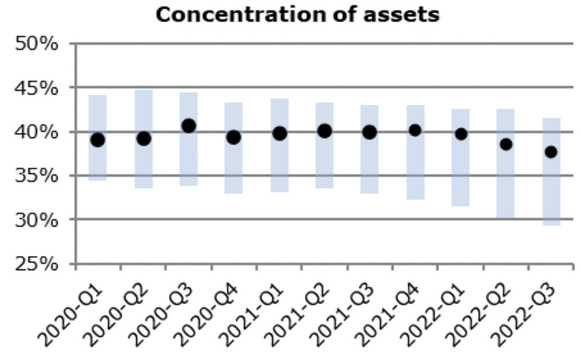
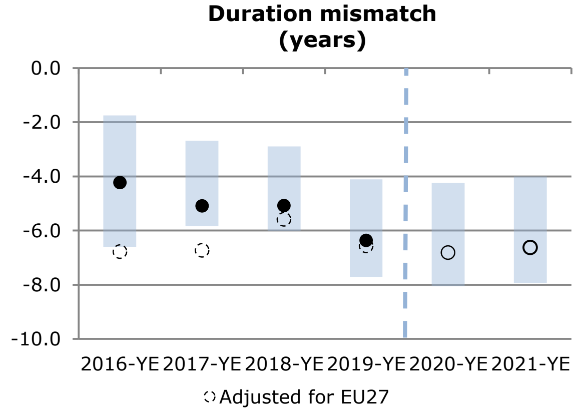


Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. From Q1-2019 time series revised due to changes in source data from the ECB. Latest update for real estate prices is Q3-2023. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG ($N_{2022\ Q3}$=88); ECB

The median spread of investment returns over guaranteed rates decreased to -2% at the end of 2021.



Note: Distribution of indicator (interquartile range, median). Figures have been updated for YE2021. Figures for 2021-YE have been revised. The numerator of the investment return ratio includes Solvency II reported unrealised gains and losses.
Source: ARS (N_{2021}=396)

The median for the indicator on the concentration of assets slightly decreased to 37.7% in Q3-2022.	*The distribution of the duration mismatch indicator hovered from 2020 to 2021, with the median mismatch standing at around -7 years. Duration mismatch is based on the modified duration of the fixed income assets and of the liabilities. Duration of the liabilities does not take into account optionalities such as a future profit participation.*
	
Note: Herfindal Hirshman index computed on six balance sheet asset classes (government bonds, corporate bonds, equities, properties, cash and cash equivalents and loans and mortgages). Distribution of indicator (interquartile range, median). Source: QFG ($N_{2022\ Q3}$=88)	Note: Distribution of indicator (interquartile range, median). Source: Assets QFG ($N_{2021\ Q4}$=83); Liabilities AFG (N_{2021}=83)

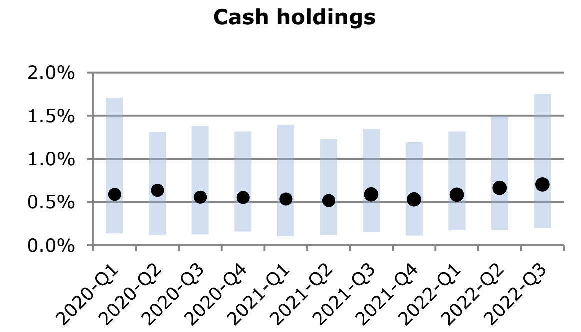
Liquidity and funding risks

Level: medium

Trend: constant

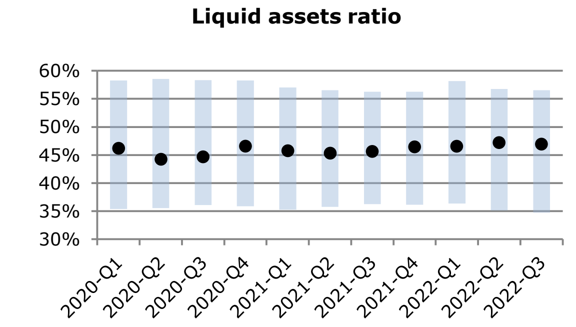
Liquidity and funding risks remain at medium level. Cash holdings continued reporting a slight increasing trend since the beginning of 2022, while liquid asset ratio remains overall stable. On the other hand, bond issuance and catastrophe bond issuance decreased. The latter follows the seasonality experienced in the past years, with the majority of cat bonds covering property catastrophe risks.

The median of cash holdings continued shifting upwards since the begining of 2022, standing at 0.70% in Q3-2022. Similarly, the upper tail of the distribution raised (+0.3 p.p).



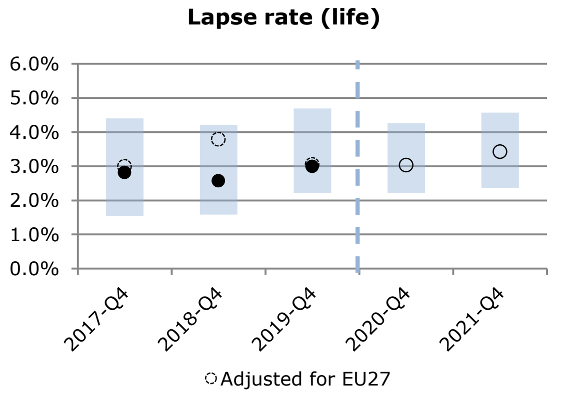
Note: Distribution of indicator (interquartile range, median).
Source: QRS ($N_{2022\ Q3}$=1,797).

The distribution range of the liquid assets to total assets ratio remains overall stable, with a median standing at 47% in Q3-2022.



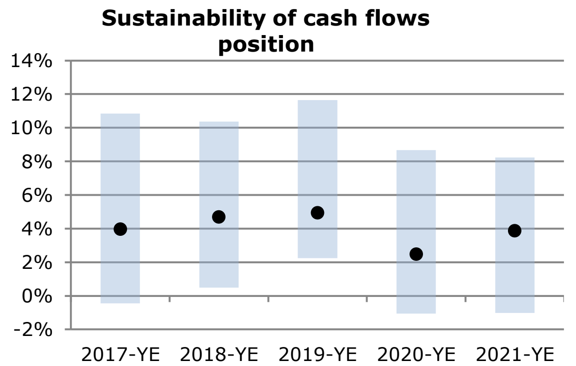
Note: Distribution of indicator (interquartile range, median).
Source: QRS ($N_{2022\ Q3}$=1,737).

The distribution of lapse rates in life business shifted upwards, with a median standing at 3.4% in Q4-2021 (+0.4 p.p. compared to the previous quarter).



Note: Distribution of indicator (interquartile range, median).
The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG ($N_{2021\ Q4}$=88)

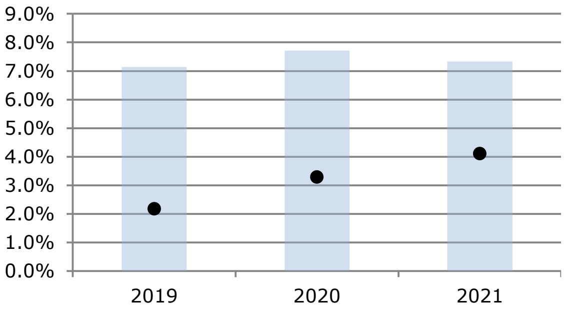
The median of the sustainability of cash flow position increased to 3.9% in 2021 from 2.5% in 2020.



Note: Distribution of indicator (interquartile range, median).
Source: ARS (N_{2021}=2,310).

The median of the funding via repos increased to 4.1% in 2021 from 3.3% in the previous year.

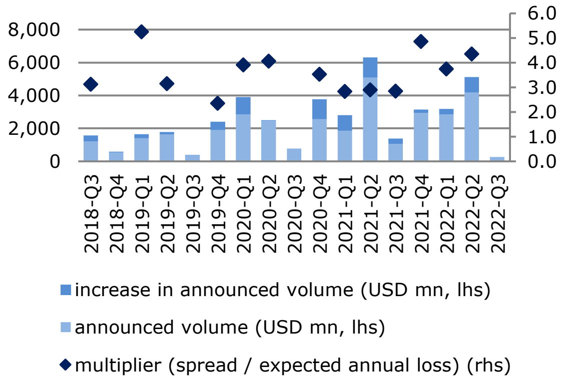
Funding via repos



Note: Distribution of indicator (interquartile range, median). Due to data revision, the indicator has been reviewed.
Source: ARS (N_{2021}=94).

Catastrophe bond issuance significantly decreased in Q3-2022 to USD 0,267 million (4,186 million in Q2-2022), following the seasonality experienced in the past years. The majority of cat bonds issued covered property catastrophe risks.

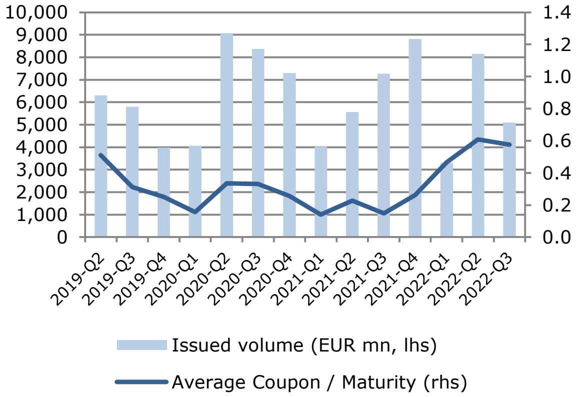
Cat Bond Issuance



Note: Volumes in USD mn, spread in per cent.
Source: http://artemis.bm

Bond issuance volumes decreased to EUR 5.1 billion in Q3-2022. The average ratio of coupons to maturity slightly dropped to 0.58 from 0.61.

Bond issuance

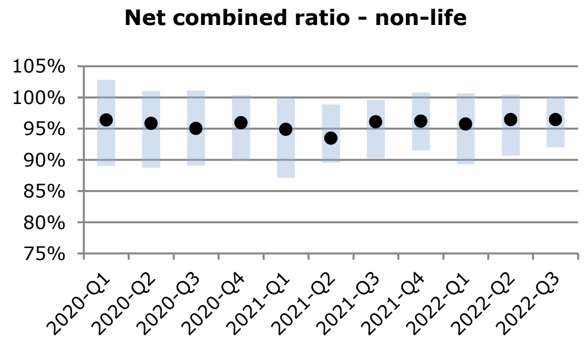


Note: Volume in EUR mn
Source: Bloomberg Finance L.P.

## Profitability and solvency	Level: medium Trend: constant

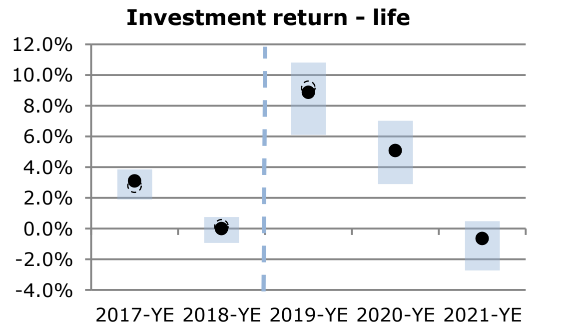
Profitability and solvency risks remain at medium level. Life insurers reported a decrease in their SCR ratio for the second consecutive quarter, while the SCR ratio of non-life insurers experienced a slight increase. The expected profit in future premiums slighly dropped. The net combined ratio (for non-life insurers) and assets over liabilities remain overall stable since the last assessment.

The median of the net combined ratio for non-life remains overall stable at 96% in Q3-2022.



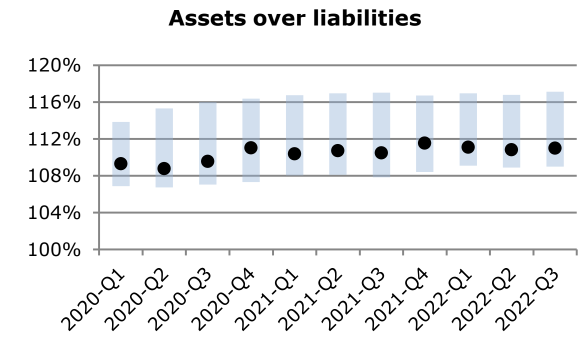
Note: Distribution of indicator (interquartile range, median).
Source: QRS (N_{2022} Q3=1,363).

The distribution range of the return on investments for life solo undertakings shifted downwards, with a median of -0.6% in 2021 (-5.7 p.p. compared to the previous year).



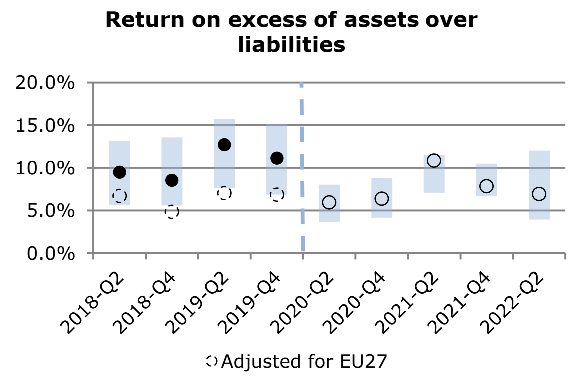
Note: Distribution of indicator (interquartile range, median). The numerator of the investment return ratio includes Solvency II reported unrealised gains and losses.
Source: ARS (N_{2021}=389).

The distribution range of the ratio of assets over liabilities remains overall stable with the median standing at 111% in Q3-2022.



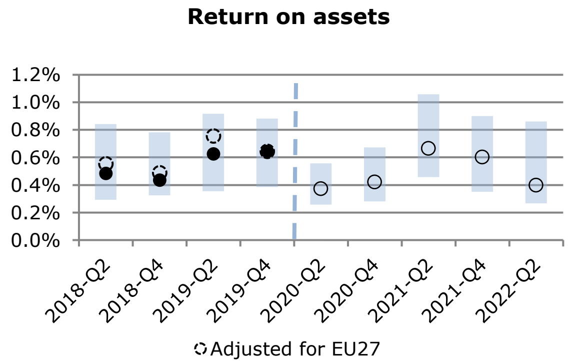
Note: Distribution of indicator (interquartile range, median).
Source: QFG ($N_{2022\ Q3}$=88).

The median of return on excess of assets over liabilities (based on statutory accounts) shifted downwards to 7% in Q2-2022 (8% in Q1-2022). Similarly the lower tail reported a noteworthy drop from 7% to 4%.



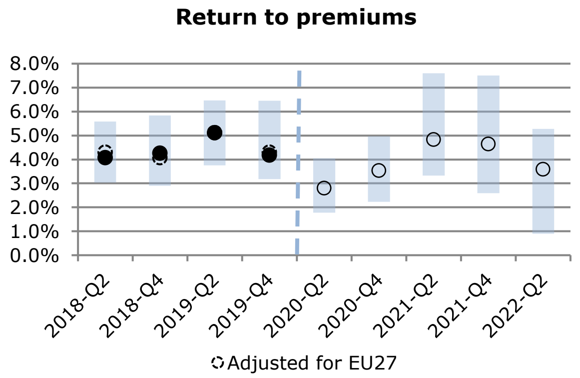
Note: Distribution of indicator (interquartile range, median). Q2 figures annualised. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG and ARG ($N_{2022\ Q2}$=90).

The distribution range of return on assets (based on statutory accounts) moved downwards, with a median standing at 0.4% in Q2-2022 (0.6% in Q4-2021).



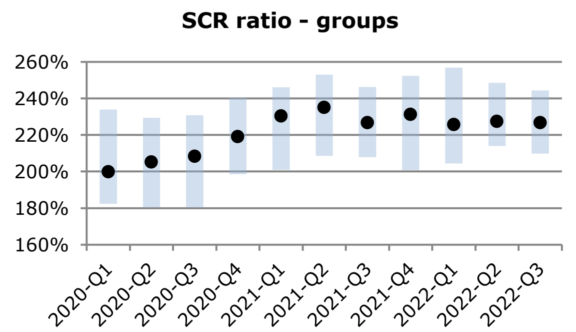
Note: Distribution of indicator (interquartile range, median). Q2 figures annualized. The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QFG and ARG ($N_{2022\ Q2}$=90).

The distribution of return to premiums shifted downwards, with a median around 3.6% in Q2-2022 (4.6% in Q4-2021). The lower tail of the distribution moved from 2.6% to 0.9%.



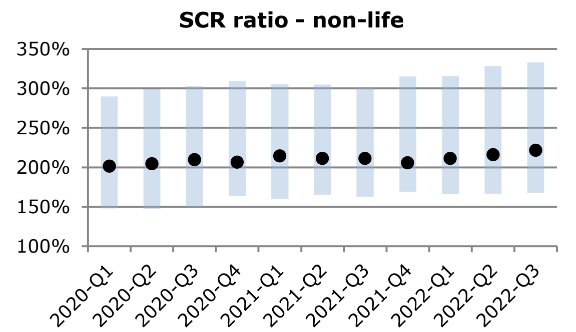
Note: Distribution of indicator (interquartile range, median). The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: "Total" QFG ($N_{2022\ Q2}$=91).

The median SCR ratio for groups remains overall stable around 227% in Q3-2022. Whereas, the lower tail of the distribution decreased by -4.1 p.p., showing an deterioration of SCR ratios for the insurance groups with low ratios.

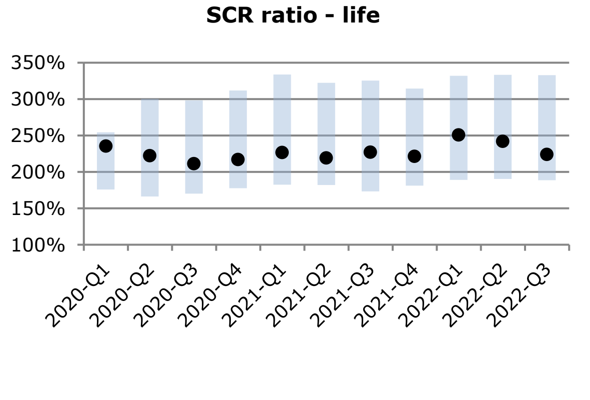
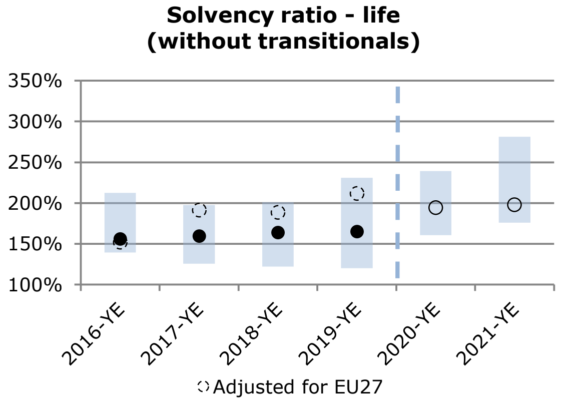
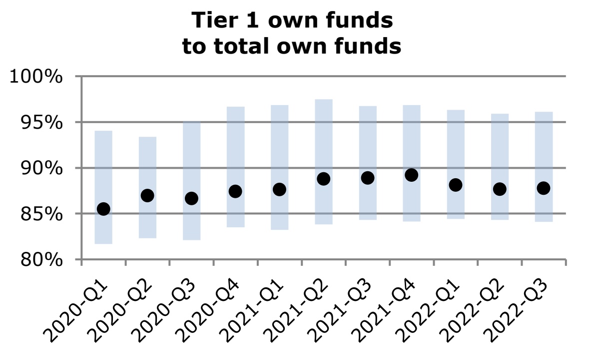
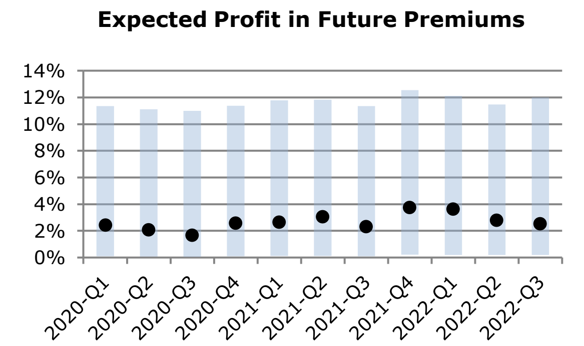


Note: Distribution of indicator (interquartile range, median).
Source: "Total" QFG ($N_{2022\ Q3}$=87).

The median SCR ratio for non-life solo undertakings slightly shifted upwards to 221% in Q3-2022 (215% in Q2-2022).



Note: Distribution of indicator (interquartile range, median).
Source: QRS ($N_{2022\ Q3}$=1,076).

The median SCR ratio for life solo undertakings continued decreasing for the second consecutive quarter to 223% in Q3-2022 (241% in Q2-2022).	*The median SCR ratio of life solo companies excluding the impact of transitional measures remains unchanged, around 197%, while the lower tail increased. The latter indicates an improvement for the life undertakings with lowest SCR ratios (without transitional).*
 Note: Distribution of indicator (interquartile range, median). The distribution is weighted. Source: QRS ($N_{2022\ Q3}$=381).	 Note: Distribution of indicator (interquartile range, median). Source: ARS (N_{2021}=237).
The distribution range of tier 1 capital in total own funds remains overall stable, with a median standing around 88% in Q3-2022.	*The median share of expected profit in future premiums as a percentage of total eligible own funds slighly dropped to 2.5% in Q3-2022 from 2.8% in the previous quarter. Whereas, the upper tail of the distribution increased.*
 Note: Distribution of indicator (interquartile range, median). Source: QFG ($N_{2022\ Q3}$=88).	 Note: Distribution of indicator (interquartile range, median). Source: QRS ($N_{2022\ Q3}$=1,865).

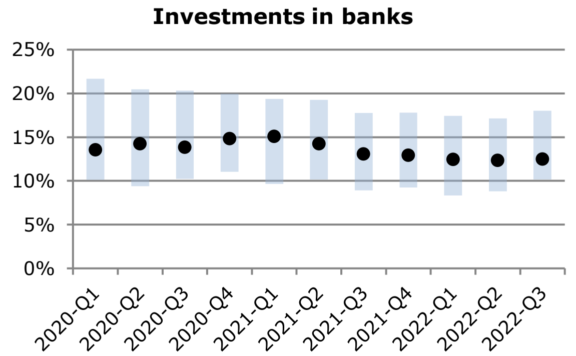
Interlinkages & imbalances

Level: medium

Trend: constant

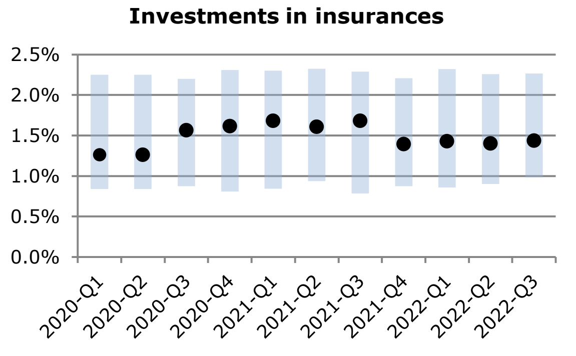
Interlinkages and imbalances risks remain at medium level in Q3-2022. Due to the current increase of interest rate, insurers realized market to market losses on those derivative positions aiming at hedging interest rates declines. Insurance groups' exposure to other financial institutions and domestic sovereign debt dropped. The exposure to banks and insurances remains unchanged since the last assessment.

The median of investment in banks as a share of total assets remains stable at 12% in Q3-2022, while the upper tail slightly increased.



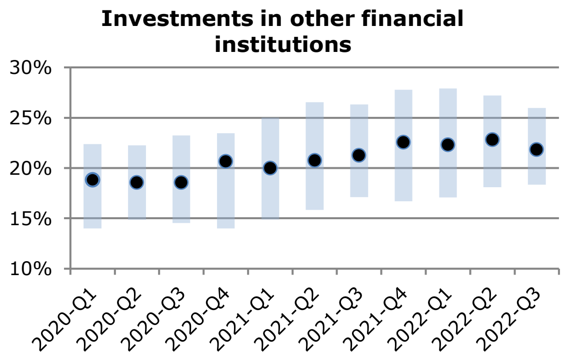
Note: Distribution of indicator (interquartile range, median). Banks comprise all activities identified with NACE code K.64.1.9.
Source: QFG ($N_{2022\ Q3}$=88).

The median of investment exposures to insurers of total assets slightly increased, standing at 1.43% in Q3-2022.



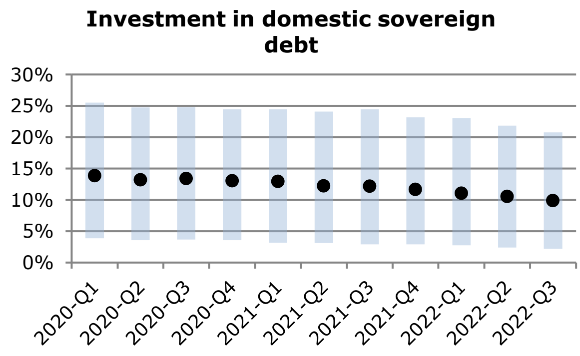
Note: Distribution of indicator (interquartile range, median). Insurances comprise all activities identified with NACE code K65, excluding K65.3.
Source: QFG ($N_{2022\ Q3}$=86).

The median of investments in other financial institutions slightly moved downwards to 21.8% in Q3-2022. Similarly, the upper tail of the distribution dropped.



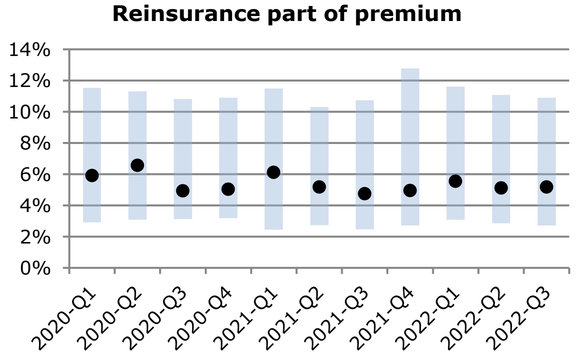
Note: Distribution of indicator (interquartile range, median). Other financial institutions comprise all activities identified with NACE codes K66, K65.3 and K64 excluding K64.1.9.
Source: QFG ($N_{2022\ Q3}$=88).

The median share of investments in domestic sovereign debt slightly dropped to 9.9% since the last assessment.



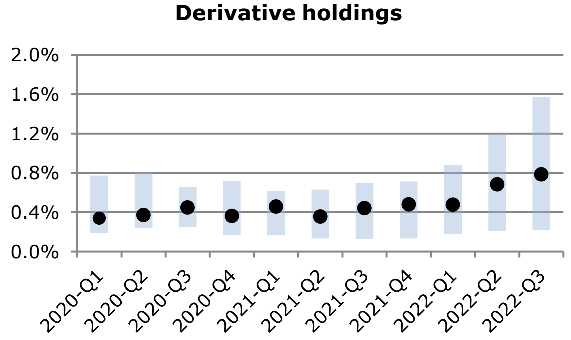
Note: Distribution of indicator (interquartile range, median).
Source: QRS ($N_{2022\ Q3}$=1,174).

The distribution range of premiums ceded to reinsurers remains overall stable, with a median standing around 5% in Q3-2022.



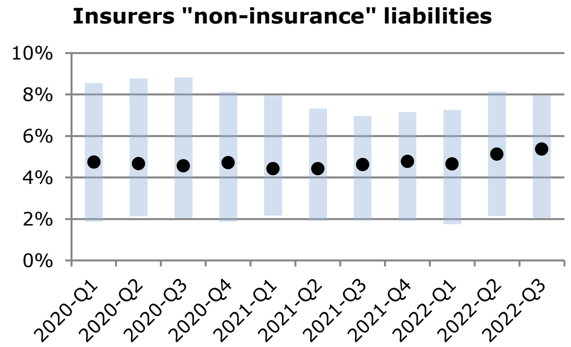
Note: Distribution of indicator (interquartile range, median). Source: QFG ($N_{2022\ Q3}$=87).

The median exposure to derivatives of total assets continued shifting upwards to 0.78% in Q3-2022 (0.68% in the previous quarter). Likewise, the upper tail of the distribution increased to 1.57%. Insurers realized market to market losses on those derivatives positions aiming at hedging interest rates declines, instead in the last quarters the interest rates increased sharply.



Note: Distribution of indicator (interquartile range, median). Derivatives are defined as the total value of derivatives from the balance sheet (i.e. both asset and liability values in absolute terms).
Source: QFG ($N_{2022\ Q3}$=88).

The median of "non-insurance" liabilities of insurers slightly moved upwards, standing at 5.4% in Q3-2022.



Note: Distribution of indicator (interquartile range, median). Source: QFG ($N_{2022\ Q3}$=88).

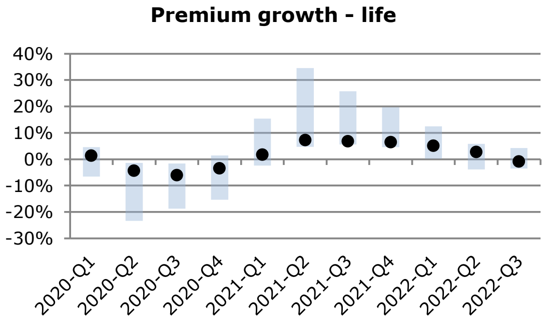
Insurance (underwriting) risks

Level: medium

Trend: large increase

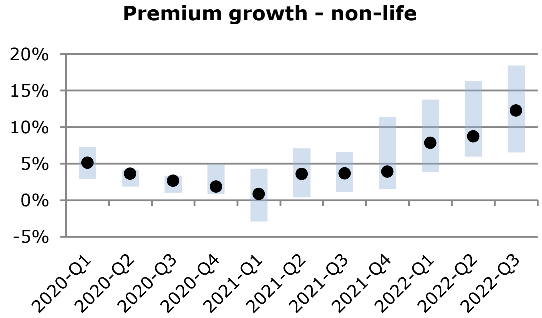
Insurance risks remain at medium level in Q3-2022 with an increasing trend. The year-on-year premium growth for life insurance continued decreasing reaching the negative territory, while for non-life a significant increase was observed following the increasing trend experienced in the past quarters. The median exposure of the loss ratio increased.

The median of the life premium growth continued decreasing standing below zero at -0.9% in Q3-2022 (2.7% in Q2-2022). Likewise, the upper tail continued the shrinking trend reaching 4.2% (5.8% in Q2-2022).



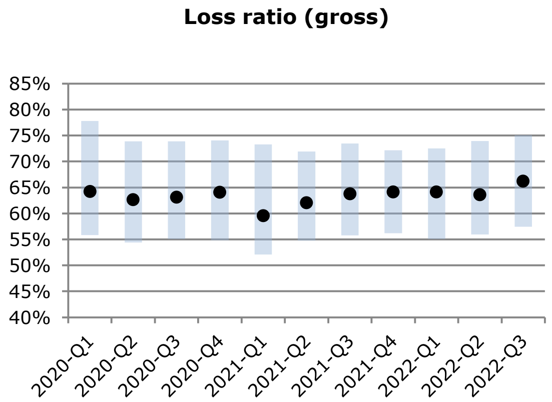
Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median).
Source: QFG ($N_{2022\ Q3}$=85).

The distribution of non-life premium growth continued shifting upward, with a median standing at 12.3% in Q3-2022 (8.7% in the previous quarter).



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median).
Source: QFG ($N_{2022\ Q3}$=80).

The distribution of the loss ratio slightly moved upwards, with a median standing at 66.2% in Q3-2022 (63.2% in the previous quarter).



Note: Distribution of indicator (interquartile range, median). The dashed line indicates a break after UK exit and exclusion of UK undertakings from the distributions.
Source: QRS ($N_{2022\ Q3}$=1,358).

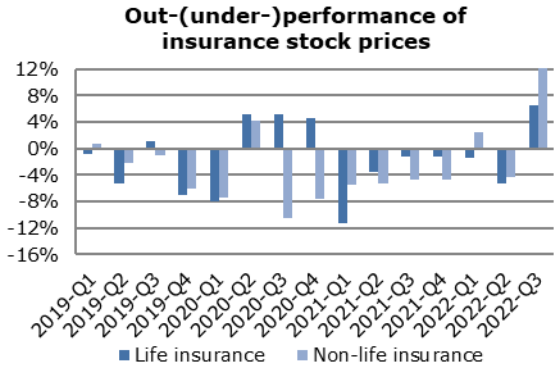
Market perceptions

Level: medium

Trend: constant

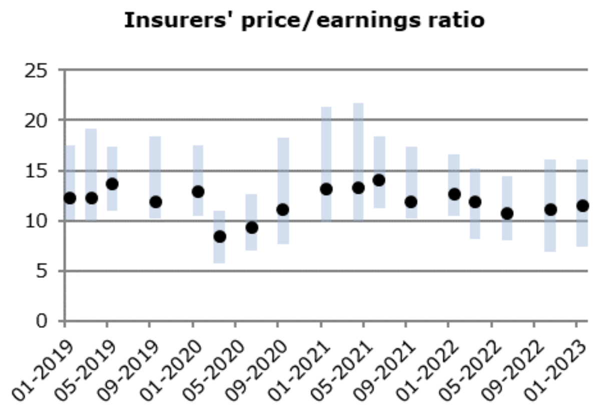
Market perceptions remain at medium level. Insurance life and non-life stocks overperformed the market. The median price-to-earnings ratio of insurance groups remained around the same level. The median of CDS spreads of insurers decreased. Insurers' external ratings remained broadly stable since the last assessment.

Life and non-life overperformed the market.



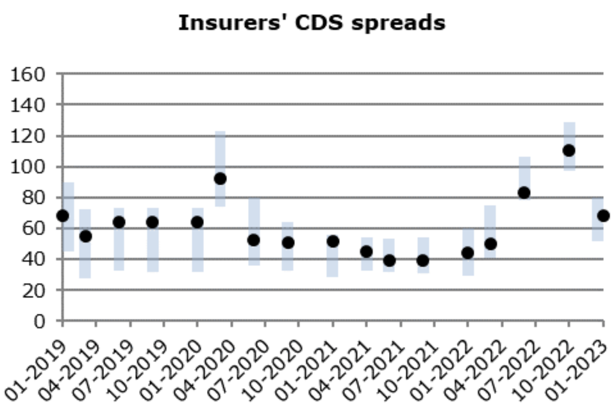
Note: Out-(under-)performance over 3-month periods vs Stoxx 600.Source: Refinitiv

The median price-to-earnings (P/E) ratio of insurance groups in the sample slightly increased to 11.4%.



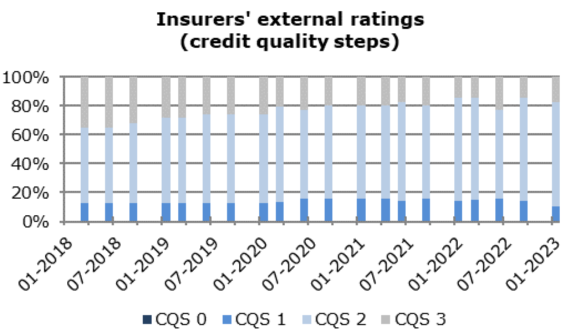
Note: Distribution of indicator (interquartile range, median).
Source: Refinitiv

The distribution of insurers' CDS spreads decreased with the median level going back to lower level amid slightly higher than long term averages for the insurers in the sample.



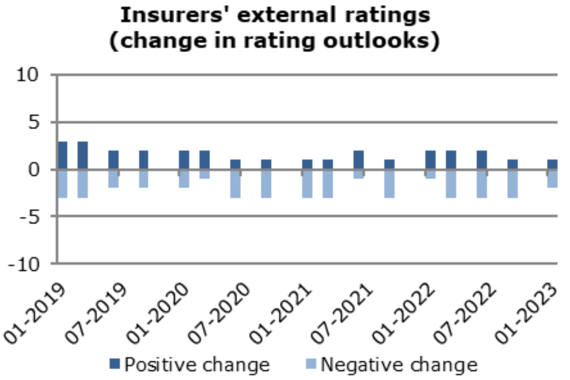
Note: Distribution of indicator (interquartile range, median).
Source: Refinitiv

Insurers' external ratings remained overall stable since the previous risk assessment.



Source: Standard & Poor's via Refinitiv

Rating outlooks for insurers in the sample have remained mainly stable.



Source: Standard & Poor's via Refinitiv

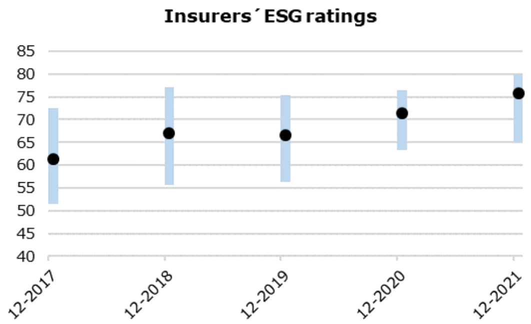
Environmental, Social and Governance (ESG) related risks

Level: medium

Trend: constant

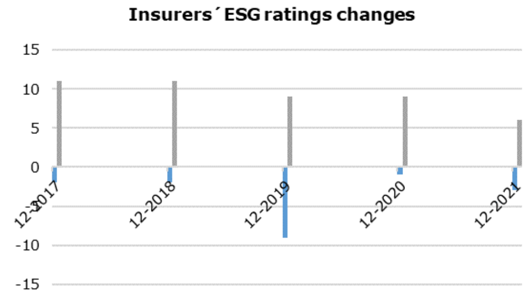
ESG related risks remain at medium level. Insurers mantained their relative exposure into green bonds, while the ratio of investments into green bonds over the total green bond outstanding slightly decreased. The growth of green bonds in insurers' portfolios has decreased, while the growth of green bonds outstanding is stable. The median exposure to climate relevant assets remained around the same levels. Exposure at flood risk has been slightly decreasing in the high end of the distribution from 2020 to 2021. The cumulative catastrophe loss ratio slightly increased in Q3-2022.

The median ESG ratings of the insurers in the sample increased to A- in 2021



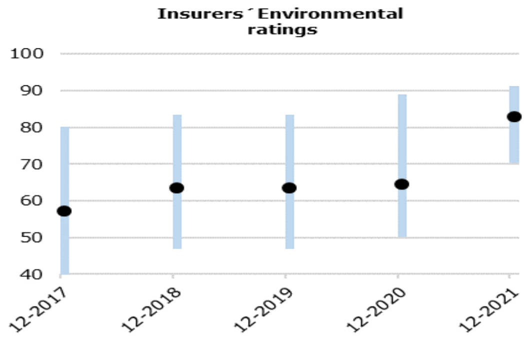
Note: Distribution of indicator (interquartile range, median). Higher rating scores corresponde to better ratings. The sample size for 2021 is relatively smaller as not all ratings have been issued yet.
Source: Refinitiv

The numbers of improvements in ESG ratings for the insurers in the sample have been higher than the negative changes in 2021.



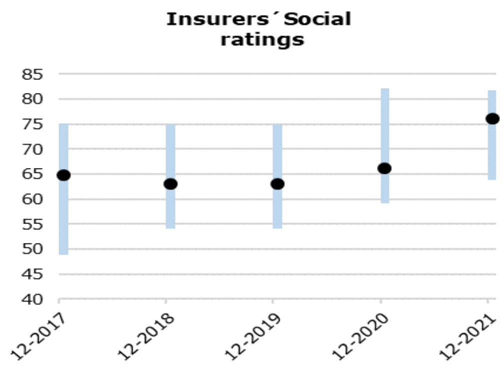
Note:Numbers of positive (grey bar) and negative (blue bar) changes. The sample size for 2021 is relatively smaller as not all ratings have been issued yet.
Source: Refinitiv

The median environmental ratings of the insurers in the sample increased to around A and it has been improving in the last years.



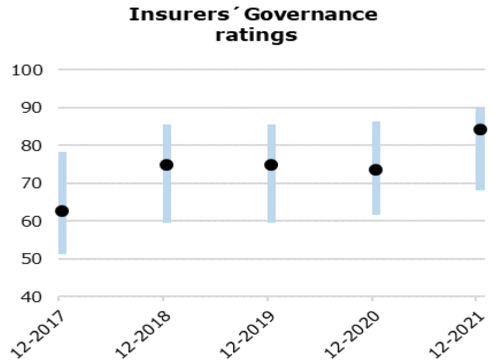
Note: Distribution of indicator (interquartile range, median). Higher rating scores corresponde to better ratings. The sample size for 2021 is relatively smaller as not all ratings have been issued yet.
Source: Refinitiv

The median social ratings of the insurers in the sample correspond to around A- and it improved in 2021.



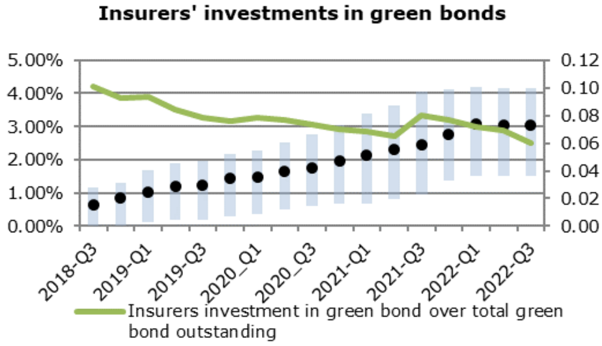
Note: Distribution of indicator (interquartile range, median). Higher rating scores corresponde to better ratings. The sample size for 2021 is relatively smaller as not all ratings have been issued yet.
Source: Refinitiv

The median governance ratings of the insurers in the sample correspond to around A and it improved on 2021.



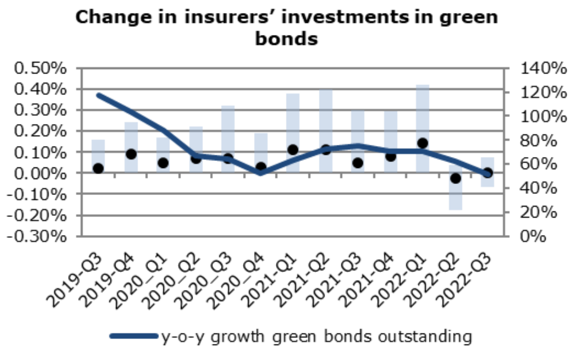
Note: Distribution of indicator (interquartile range, median). Higher rating scores corresponde to better ratings. The sample size for 2021 is relatively smaller as not all ratings have been issued yet.
Source: Refinitiv

The median investments in green bonds over corporate bonds have been hovering around 3 %. In Q3 2022, the share of insurers' investment in green bond over total green bonds outstanding slightly decreased compared to the previous quarter.



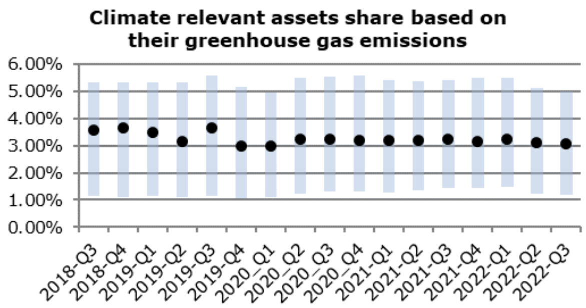
Note: Distribution of indicator (interquartile range, median).
Source: Refinitiv, QRS ($N_{2022\ Q3}$=1,365).

The y-o-y growth of green bonds outstanding slightly decreased, while the median growth of insurers' investment in green bonds has decreased. However, the decrease might be driven by valuation effects.



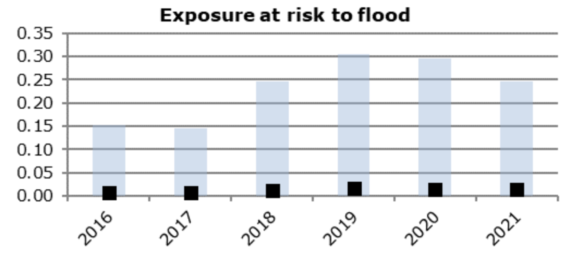
Note: Distribution of indicator (interquartile range, median).
Source: Refinitiv, QRS ($N_{2022\ Q3}$=1,355).

The median exposure toward climate relevant assets hovers around 3 % of total assets.



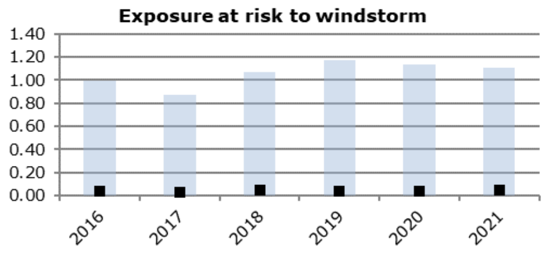
Note: The six climate-relevant sectors (agriculture, fossil fuel, utilities, energy-intensive, transport and housing) based on their greenhouse gas emissions and mapped at NACE Rev2 4-digit level. Source: QRS ($N_{2022\ Q3}$=1738).

The median exposure to flood risk remains the same, slightly decreasing in the high part of the distribution.



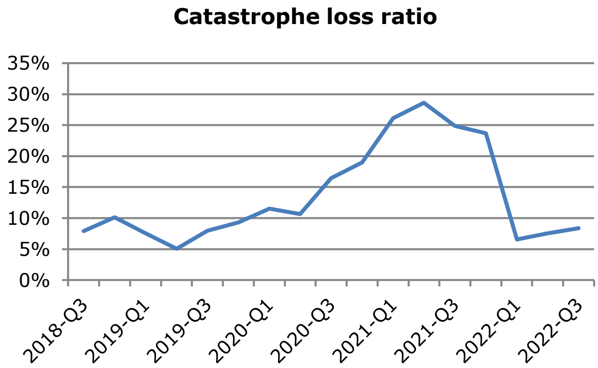
Source: EIOPA Pilot dashboard on insurance protection gap for natural catastrophes, Eurostat Refinitiv, ARG ($N_{2021\ Q3}$=110).

The exposure to windstorm risk remains the same.



Source: EIOPA Pilot dashboard on insurance protection gap for natural catastrophes, Eurostat Refinitiv, ARG ($N_{2021\ Q3}$=110).

The cumulative catastrophe loss ratio continued increasing in the third quarter-2022 since the beginning of the year.



Note: Cumulative year-to-date loss ratio calculated based on Munich Re, Hannover Re and Everest Re. The Q1-2022 data has been updated due to the recent data availability.
Source: Bloomberg Finance L.P.

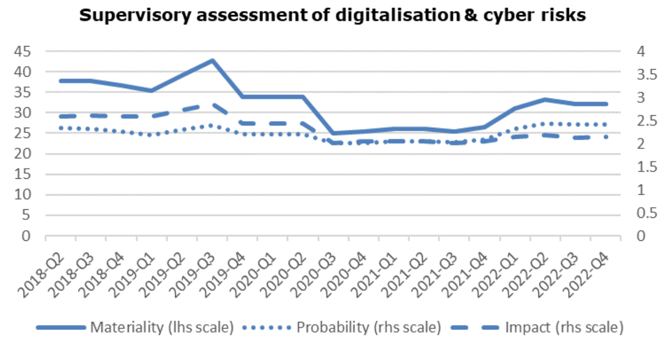
Digitalisation & Cyber risks

Level: medium

Trend: constant

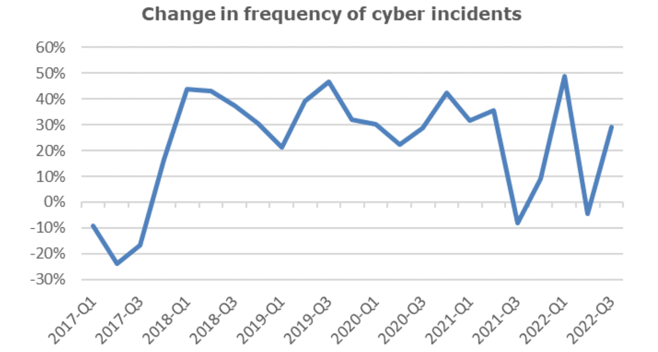
Digitalisation and cyber risks are at medium level. The materiality of these risks for insurance as assessed by supervisors remains unchanged with cyber security and hybrid geopolitical conflict as main concerns. The frequency of cyber incidents impacting all sectors of activity, as measured by publically available data, increased since the same quarter of last year. Cyber negative sentiment indicates an high amid decreasing concern in the last quarter of 2022.

The supervisory assessment of digitalisation and cyber risks remains overall stable in Q4-2022, above the levels reported in the past year before the cyber security issues and concerns of a hybrid geopolitical conflict.



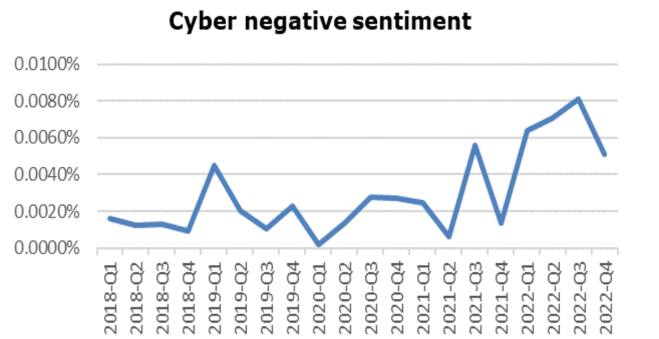
Note: Scores compiled based on the assessment of probability and impact (rhs: scale from 1 to 4) of digitalisation & cyber risks from National Competent Authorities. The country averages for each answer is then normalised (lhs: scale 0-100)
Source: EIOPA's Insurance Bottom-up Survey

The y-o-y change in frequency of cyber incidents has increased in the third quarter 2022, with the number of cyber incidents in line to the long term average.



Note: Year-on-year change in frenquency of cyber incidents. Figures for 2021-Q4 have been revised.
Source: HACKMAGEDDON website

The cyber negative sentiment indicator, by counting the number of negative-sentiment and cyber-related terms in the earning calls transcripts of major insurance groups, indicates an high amid decreasing concern in the last quarter 2022.



Note: Text analysis based indicator, calculated from earning calls transcripts ($N_{2022\ Q4}$=32). Source: Refinitiv, EIOPA calculations.

APPENDIX

Level of risk		Very high
		High
		Medium
		Low

Trend	⇧	Large increase
	⬀	Increase
	⇨	Constant
	⬂	Decrease
	⇩	Large decrease

Arrows show changes when compared to the previous quarter.

Description of risk categories

Macro risks

Macro risk is an overarching category affecting the whole economy. EIOPA's contribution focuses on factors such as economic growth, state of the monetary policies, consumer price indices and fiscal balances which directly impact the insurance industry. The indicators are developed encompassing information on the main jurisdictions where European insurers are exposed to both in terms of investments and product portfolios.

Credit risks

The category measures the vulnerability of the European insurance industry to credit risk. To achieve this aim, credit-relevant asset class exposures of the (re)insurers are combined with the relevant risk metrics applicable to these asset classes. For instance, the holdings of government securities are combined with the credit spreads on European sovereigns.

Market risks

Market risk is, for most asset classes, assessed by analysing both the investment exposure of the insurance sector and an underlying risk metric. The exposures give a picture of the vulnerability of the sector to adverse developments; the risk metric, usually the volatility of the yields of the associated indices, gives a picture of the current level of riskiness. The risk category is complemented by an indicator which captures the difference between guaranteed interest rates and investment returns.

Liquidity and funding risks

This category aims at assessing the vulnerability of the European insurance industry to liquidity shocks. The set of indicators encompasses the lapse rate of the life insurance sector with high lapse rate signalling a potential risk, holdings of cash & cash equivalents as a measure of the liquidity buffer available, and the issuance of catastrophe bonds, where a very low volume of issuance and/or high spreads signals a reduction in demand which could form a risk.

Profitability and solvency

The category scrutinises the level of solvency and profitability of the European insurance industry. Both dimensions are analysed for the overall industry (using group data) and include a breakdown for the life and non-life companies (using solo data). In detail, the solvency level is measured via solvency ratios and quality of own funds. Standard profitability measures for the whole industry are complemented by indicators such as the combined ratio and the return on investments specifically applied to the non-life and life industry respectively.

Interlinkages and imbalances

Under this section various kinds of interlinkages are assessed, both within the insurance sector, namely between primary insurers and reinsurers, between the insurance sector and the banking sector, as well as interlinkages created via derivative holdings. Exposure towards domestic sovereign debt is included as well.

Insurance (underwriting) risks

As indicators for insurance risks gross written premiums of both life and non-life business are an important input. Both significant expansion and contraction are taken as indicators of risks in the sector; the former due to concerns over sustainability and the latter as an indicator of widespread contraction of insurance markets.

Market perception

This category encompasses the financial markets' perception of the healthiness and profitability of the European insurance sector. For this purpose, relative stock market performances of European insurance indices against the total market are assessed, as well as fundamental valuations of insurance stocks (price/earnings ratio), CDS spreads and external ratings/rating outlooks.

Environmental, Social and Governance (ESG) related risks

This risk category aims at assessing the vulnerability of the European insurance industry to Environmental, Social and Governance (ESG) risks but also to capture these kind of risks that may emerge and rise in the near future. The set of indicators encompasses ESG ratings of listed insurers signalling low insurers' attention to ESG factors and hence could increase their reputational and operational risk, the share of green bonds in insurers' portfolios and share of climate relevant assets based on their greenhouse gas emissions as a measure of exposure towards transition risk, exposure at risk of NatCat events, economic damage caused by weather and climate-related extreme events and catastrophe loss ratio as a flag for potential physical risk. Information on claims and insurance losses due to natural catastrophes also contribute to this risk category.

Digitalisation & Cyber risks

This risk category aims to capture potential financial stability risks related to an increased digitalisation, which exposes the insurance sector to risks both from an operational resilience perspective (as insurers themselves can be targets of cyber-attacks) and from an underwriting perspective (related to the provision of cyber insurance products). The set of indicators encompasses the supervisors' assessment of digitalisation & cyber risks considering different aspects such as cyber security risks, cyber underwriting risks and Insurtech competition, the year-on–year change in the frequency of cyber incidents as reported in the Hackmageddon.com database and, finally, the negative sentiment of European insurers against cyber risk. This section will be further developed as new data becomes available.

Abbreviations

AFG	Annual Financial Stability Reporting for Groups
ARS	Annual Prudential Reporting for Solo Entities
QFG	Quarterly Financial Stability Reporting for Groups
QRS	Quarterly Prudential Reporting for Solo Entities
QFT	Quarterly Fast Track Reporting (pre-Solvency II, for around 32 large insurance groups on a best effort basis)

Notes

- Sample size for the different indicators may vary according to availability and consistency of the reported information.
- Vertical dashed lines where displayed in the graphs that signal the structural change in the series driven by the transition from Solvency I to Solvency II reporting.

EIOPA Risk Dashboard January 2023