

RISK DASHBOARD

October 2018¹

Risks	Level	Trend
1. Macro risks	Medium	→
2. Credit risks	Medium	→
3. Market risks	Medium	→
4. Liquidity and funding risks	Medium	↗
5. Profitability and solvency	Medium	→
6. Interlinkages and imbalances	Medium	→
7. Insurance (underwriting) risks	Low	→
Market perceptions	Level	Trend
8. Market perceptions	Medium	→

Key observations:

- Risk exposures for the European insurance sector remain overall stable.
- Macro risks continue at medium level amid continued economic recovery and less expansionary monetary policy. A potential future deterioration in the assessment due to political and international trade tensions cannot be excluded.
- Bond market volatility declined since June and overall CDS spreads remained broadly stable at low levels despite substantial developments in sovereign bond markets in some countries.
- Liquidity and funding risks increased due to a higher average coupon-to-maturity ratio of a limited number of bond issuances. Profitability has been overall stable and SCR ratios are above 100% for most insurers.
- Market perceptions were mixed with insurance stocks outperforming the market, but at the same time there was an increase in the price-to-earnings ratio for some insurance groups.

¹ Reference date for company data is Q2-2018 for quarterly indicators and 2017-YE for annual indicators. The cut-off date for most market indicators is mid-September 2018. Any market movements and potential losses from natural catastrophes occurred after the indicated cut-off dates are not yet reflected in the risk assessment.

Macro risks



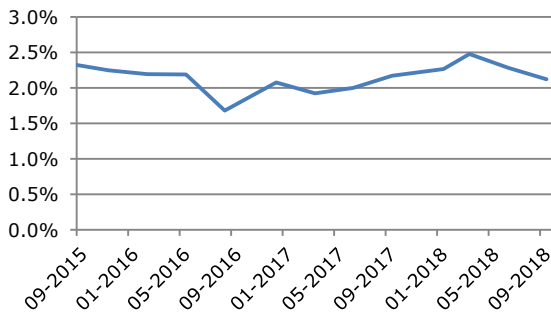
Level: medium

Trend: constant

Macro risks remain stable at medium level. Monetary policy is becoming less accommodative, with an increase in policy rates in the US and UK and a continued reduction in the pace of expansion of central banks' balance sheets. Unemployment rates are still declining. Forecasted GDP growth for the Euro Area has registered minor downward revisions since the previous assessment. A potential future deterioration in the assessment due to political and international trade tensions cannot be excluded.

The indicator on forecasted GDP growth decreased slightly from the previous quarter, due mainly to small downward revisions to GDP growth in the Euro Area.

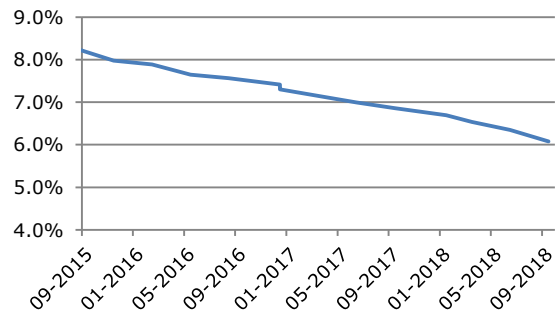
GDP consensus forecast



Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States, BRICS.
Source: Bloomberg Finance L.P.

Unemployment rates continue to decline, with the weighted average indicator reaching 6.1%.

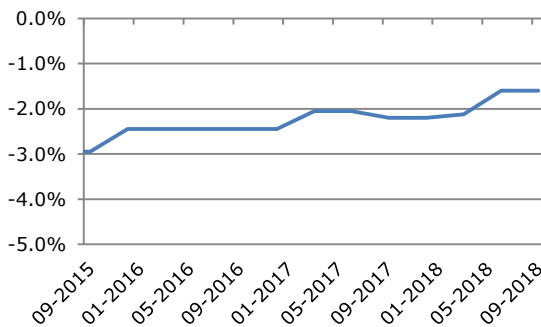
Unemployment rate



Note: Weighted average for EU, Switzerland, United States, China.
Source: Bloomberg Finance L.P.

The indicator on fiscal balances is unchanged at -1.6%.

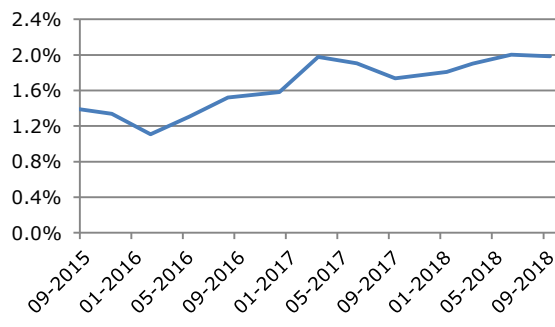
Fiscal balance



Note: Weighted average for EU and United States.
Source: Bloomberg Finance L.P.

The indicator on forecasted inflation remained broadly stable at around 2%.

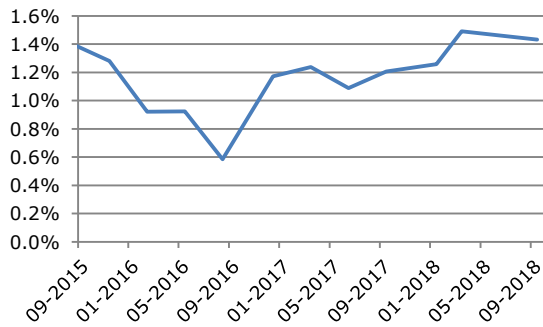
CPI consensus forecast



Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States, BRICS.
Source: Bloomberg Finance L.P.

The indicator on swap rates has declined only very slightly since June, remaining at around 1.4%.

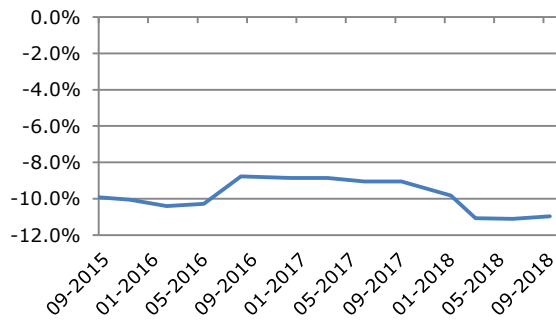
10Y swap rates



Note: Weighted average for EUR, GBP, CHF, USD.
Source: Bloomberg Finance L.P.

The indicator on credit-to-GDP gap is barely unchanged at around -11%. It mainly reflects the negative gaps in the Euro area, US and UK.

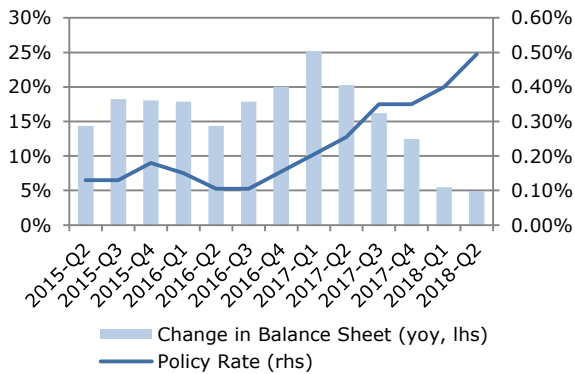
Credit-to-GDP gap



Note: Weighted average for Euro area, United Kingdom, Switzerland, United States, China.
Source: BIS

Policy rates have been raised by both the Federal Reserve and the Bank of England. The rate of expansion of central banks' balance sheets slightly reduced, remaining close to 5%.

State of monetary policy



Note: Weighted average for Euro area, United Kingdom, Switzerland, United States.
Source: Bloomberg Finance L.P.

Credit risks



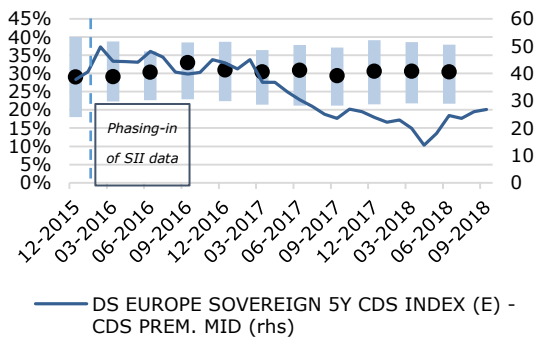
Level: medium

Trend: constant

Credit risks remain at medium level. Overall, CDS spreads have been relatively stable since the previous assessment and are still low in historical terms. This is despite substantial developments in sovereign bond markets in some countries

Overall CDS spreads for sovereign bonds slightly increased since June, despite more substantial developments for certain countries. Insurers' exposures to this asset class remain overall unchanged.

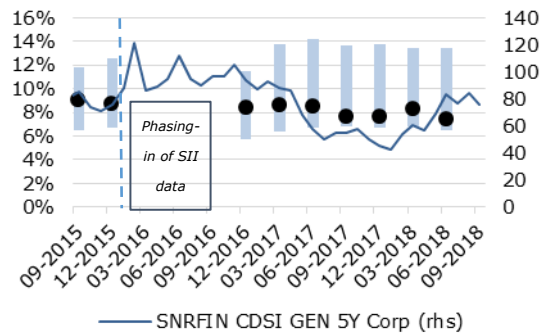
Investments in government bonds



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₈ Q₂=97); QFT prior to 2016

Spreads for unsecured financial bonds slightly declined since June. Median exposures to this bond segment remain below 10%.

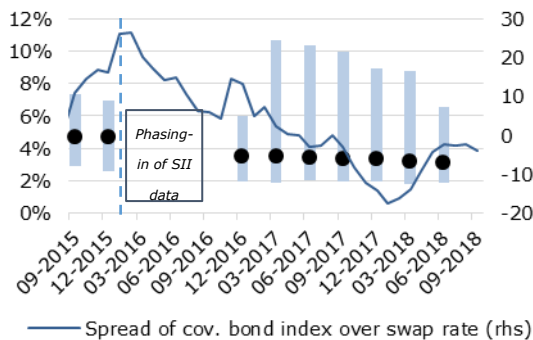
Investments in corporate bonds - financials, unsecured



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₈ Q₂=65); QFT prior to 2016

Spreads for secured financial bonds slightly declined since the previous assessment. The upper tail of the distribution declined due to changes in the underlying sample. Overall, exposures reduced from the previous quarter, but to a lesser extent.

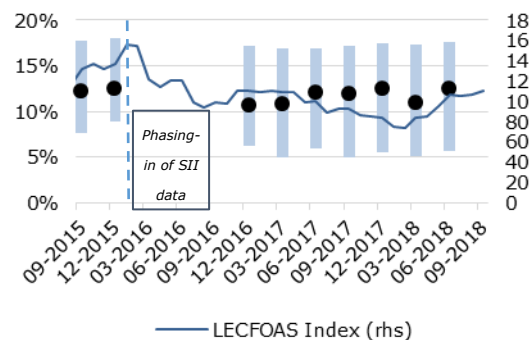
Investments in corporate bonds - financials, secured



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₈ Q₂=65); QFT prior to 2016

Spreads for non-financial corporate bonds increased somewhat since June. Median exposure to this segment is at 12.5%.

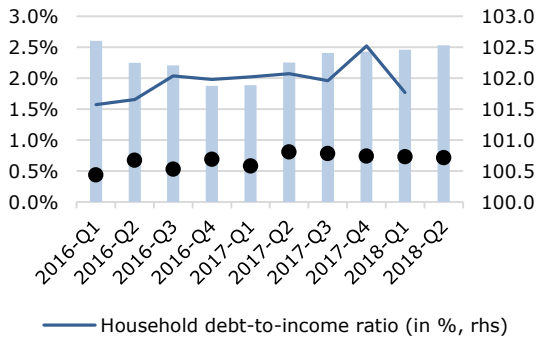
Investments in corporate bonds - non-financials



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₈ Q₂=65); QFT prior to 2016

Exposures to loans and mortgages to individuals remained stable. The median exposure is only 0.7%. Household indebtedness is high, though the debt-to-income ratio slightly declined in the UK.

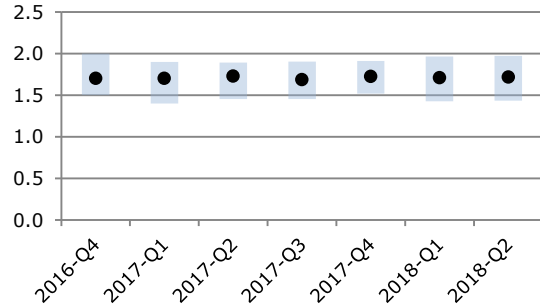
Investments in loans and mortgages to individuals



Note: Left scale shows the distribution of exposures (interquartile range and median), right scale the risk measure (weighted average of EA and UK).
Source: QFG (N_{2018 Q2}=97), ECB

The average rating of investments is broadly unchanged. The median average credit quality step is 1.7, corresponding to an S&P rating between AA and A.

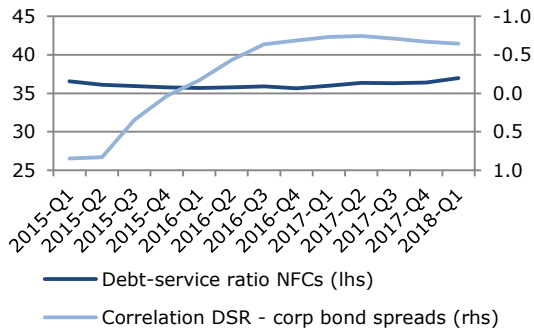
Average rating of investments (credit quality step)



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2018 Q2}=90)

The correlation between the debt-service ratio of non-financial corporations and corporate bond spreads is still negative, indicating potential risk mispricing.

Fundamental credit risk



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.
Source: BIS, Bloomberg Finance L.P.

Market risks



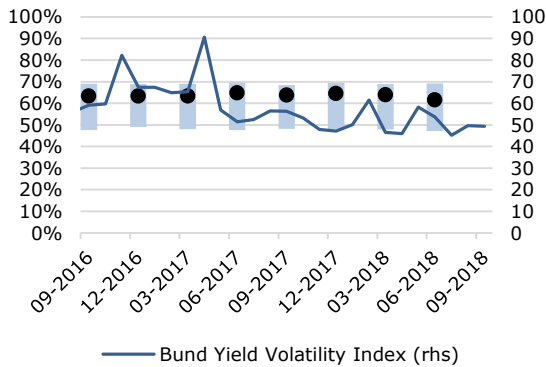
Level: medium

Trend: constant

Market risks remain constant at medium level. The decline in assessed risk is mainly due to lower bond market volatility in September as compared to the previous assessment.

Bond market volatility has declined since the July assessment. Exposures to bonds remain overall stable in Q2-2018.

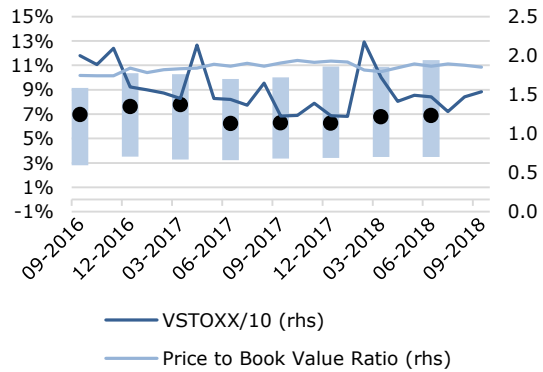
Investments in bonds



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N_{2018 Q2}=97)

Volatility of equity prices is slightly higher than in June, despite a temporary decline in July. Median exposures to equity are at around 7%.

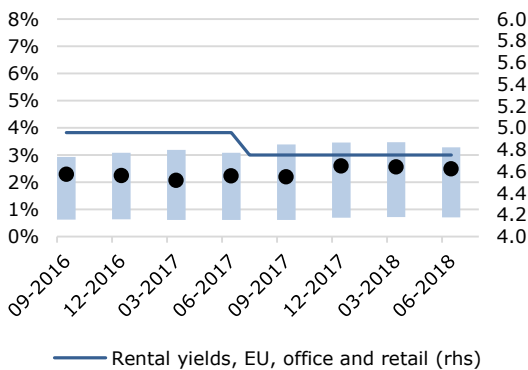
Investments in equity



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N_{2018 Q2}=97); QFT prior to 2016

Exposures to property remained unchanged in Q2, as well as rental yields for both office and retail.

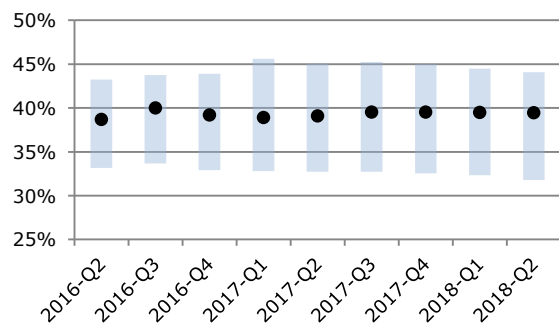
Investments in property



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N_{2018 Q2}=97); QFT prior to 2016

Concentration of assets is quite stable, with the median value of the indicator being close to 40%.

Concentration of assets



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_{2018 Q2}=97)

Liquidity and funding risks



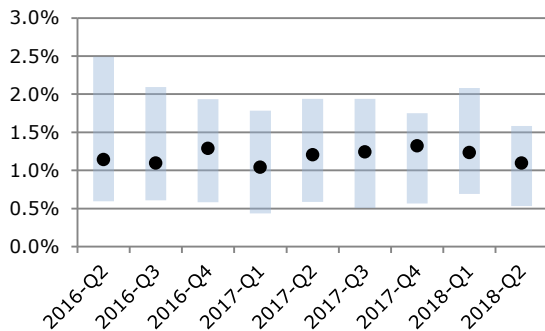
Level: medium

Trend: increase

Liquidity and funding risks remain at medium level but increased since the previous quarter due to an increase in the average ratio of coupons to maturity indicator. This result is primarily driven by the issuances of two insurers.

Cash holdings have slightly declined across the whole distribution since the previous quarter.

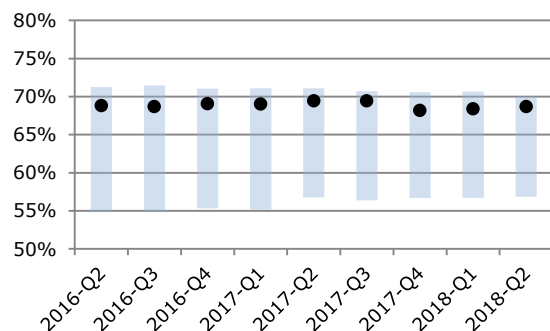
Cash holdings



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2018 Q2}=97)

No major changes have been observed in the liquid assets ratio, with the median ratio remaining close to 70%.

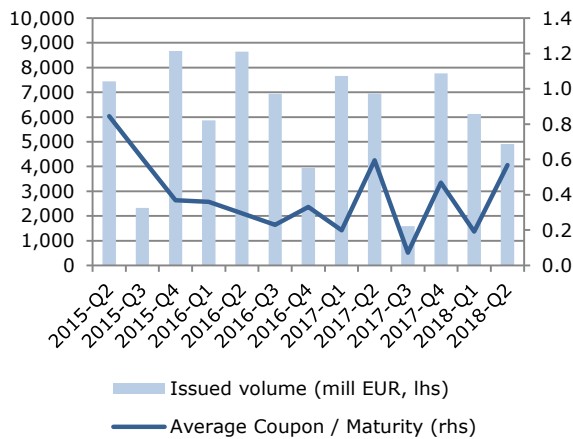
Liquid assets ratio



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2018 Q2}=97)

Bond issuance decreased by 1.2 billion EUR to 4.9 billion in Q2. The average ratio of coupons to maturity increased to around 0.6, which is primarily driven by two groups.

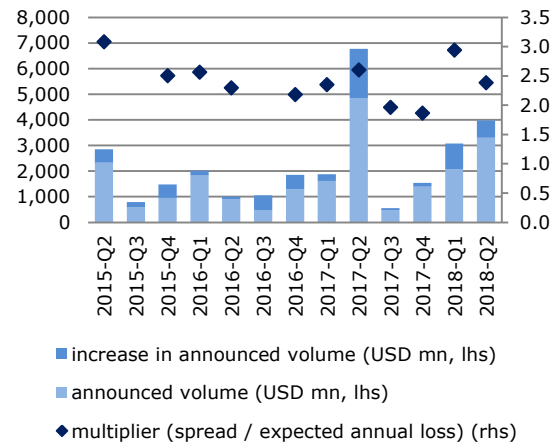
Bond issuance



Note: Volume in EUR mn. Average of the ratio of coupon to maturity of all bond issuances.
Source: Bloomberg Finance L.P

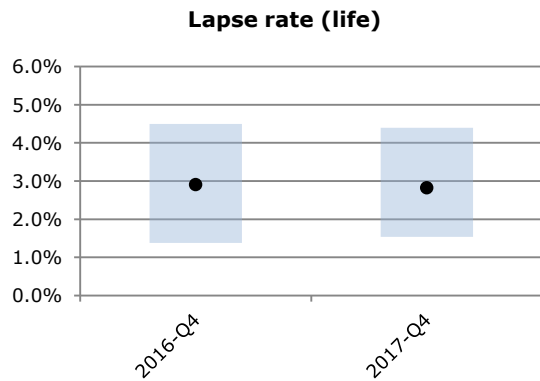
Cat bond issuance increased in Q2 compared to the previous quarter and issued volumes were 20% higher than announced. The average multiplier decreased to 2.4.

Cat Bond Issuance



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

Lapse rates in life business remained overall unchanged across the whole distribution since 2016. Median lapse rates are still around 3%.



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q4}=91)

Profitability and solvency



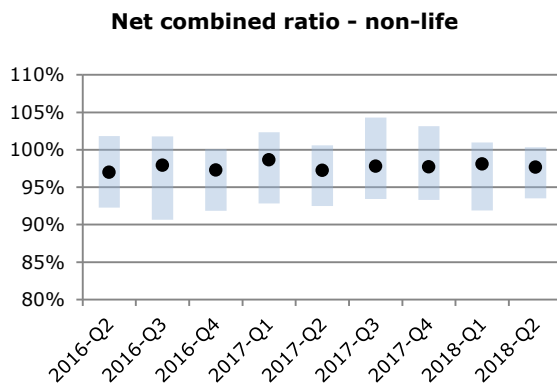
Level: medium

Trend: constant

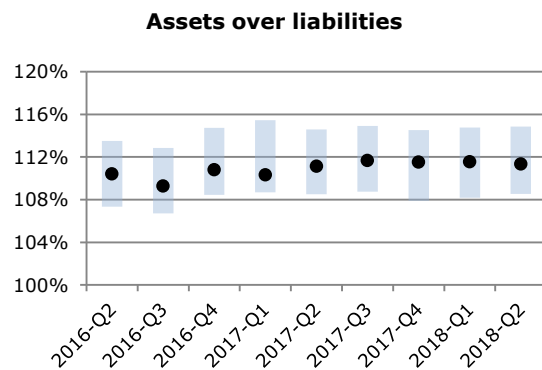
Profitability and solvency risks remain unchanged at medium level. Median figures for the return on excess of assets over liabilities and the return on assets (annualized) show a stable picture for profitability when compared to Q2-2017 and a slight improvement compared to Q4. SCR ratios for groups and both life and non-life solo undertakings remain well above 100%.

The median net combined ratio for non-life business has remained broadly unchanged since Q1, though a deterioration has been observed in the lower tail of the distribution.

Assets over liabilities remain at around 111%, practically unchanged since the previous quarter.



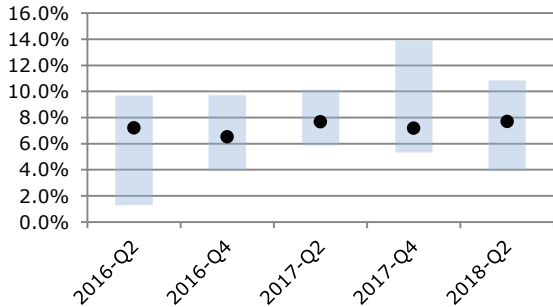
Note: Distribution of indicator (interquartile range, median).
Source: QRS (N_{2018 Q2}=1,492)



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2018 Q2}=97)

The median return on excess of assets over liabilities (used as a proxy of return on equity) is roughly at the same level as in Q2 of 2017, but is slightly higher than in Q4.

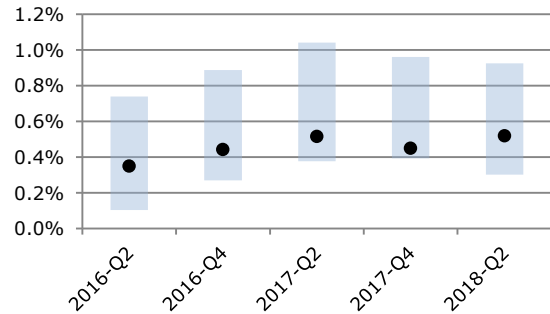
Return on excess of assets over liabilities



Note: Distribution of indicator (interquartile range, median). Q2 figures annualised. Source: QFG (N_{2018 Q2}=97)

The return on assets has barely changed since Q2 and Q4 of 2017, with the median ratio at around 0.5%.

Return on assets



Note: Distribution of indicator (interquartile range, median). Q2 figures annualised. Source: QFG (N_{2018 Q2}=97)

The return to premiums indicator has decreased across the whole distribution when compared to Q2 2017, but changed only slightly since Q4.

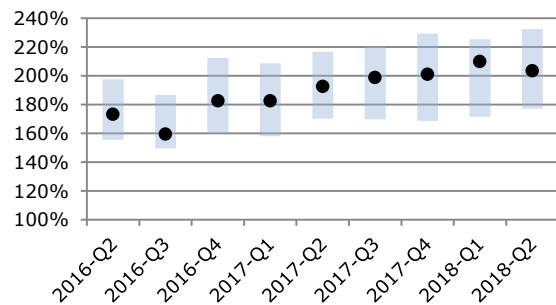
Return to premiums



Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=97)

The median SCR ratio of the insurance groups in the sample has decreased by around 6% to 203.5%, while the range of the distribution has shifted upwards.

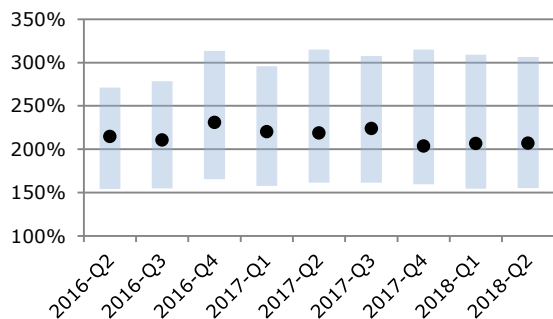
SCR ratio - groups



Note: Distribution of indicator (interquartile range, median). Source: "Total" QFG (N_{2018 Q2}=97)

SCR ratios for non-life solo companies have remained broadly stable since the previous assessment. Median non-life SCR ratio is at 206.7%.

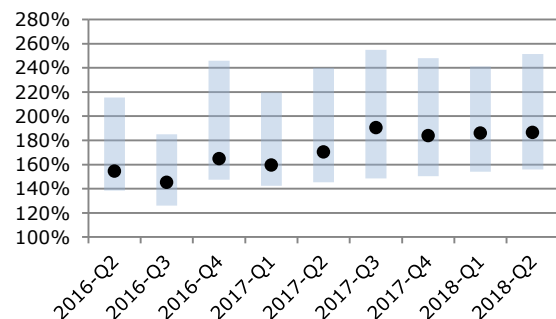
SCR ratio - non-life



Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2018 Q2}=1,224)

The upper tail of the distribution of the SCR ratio for life undertakings has shifted upwards. Median life SCR ratio is at 186.5%.

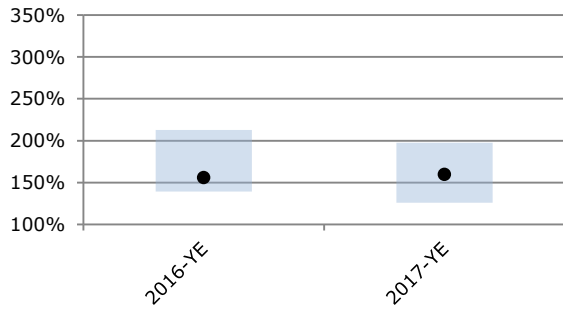
SCR ratio - life



Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2018 Q2}=520)

The median SCR ratio of life solo companies excluding the impact of transitional measures remained close to 150% in 2017. The indicator remains above 100% for most life insurers in the sample.

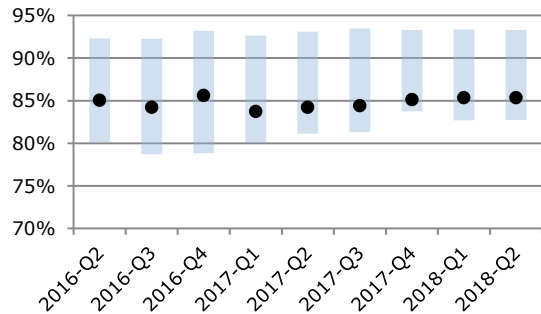
Solvency ratio - life (without transitionals)



Note: Distribution of indicator (interquartile range, median).
Source: ARS (N₂₀₁₇=299)

The indicator on the quality of own funds is unchanged since the previous quarter. Median share of Tier 1 capital in total own funds is 85.3%.

Tier 1 own funds to total own funds



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2018 Q2}=98)

Interlinkages & imbalances



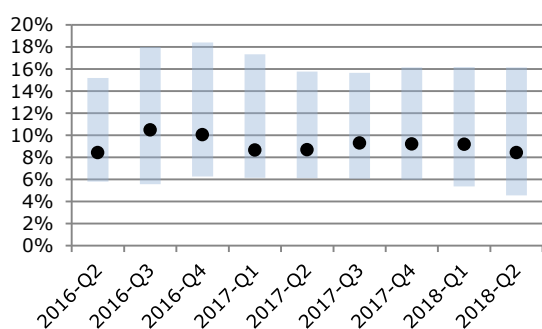
Level: medium

Trend: constant

Interlinkages and imbalances risks remain largely unchanged at a medium level. Median investment exposures to banks slightly reduced whereas an increase is reported for median exposures to other financial institutions.

The median and the lower end of investments in banks have declined by 0.7 p.p. and 0.8 p.p., respectively.

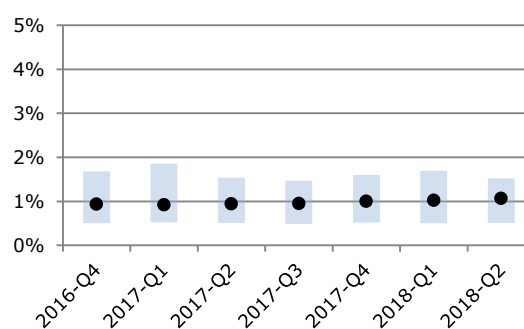
Investments in banks



Note: Distribution of indicator (interquartile range, median). Banks comprise all activities identified with NACE code K.64.1.9. Source: QFG (N_{2018 Q2}=94)

Investment exposures to other insurers remained overall stable with the median exposure close to 1%.

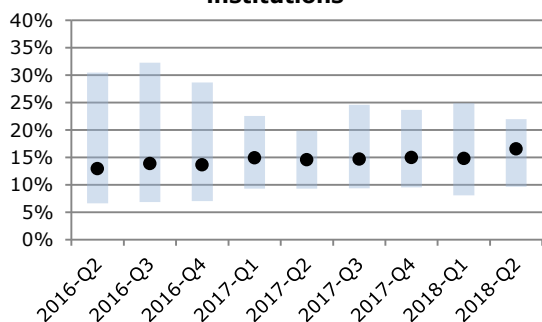
Investments in insurances



Note: Distribution of indicator (interquartile range, median). Insurances comprise all activities identified with NACE code K65, excluding K65.3. Source: QFG (N_{2018 Q2}=94)

Median exposures to other financial institutions increased by 1.7%. The whole distribution has shrunk since Q1.

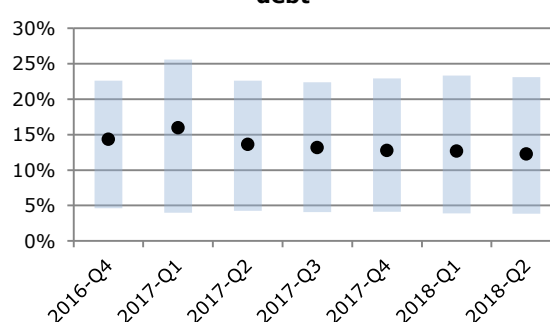
Investments in other financial institutions



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_{2018 Q2}=93)

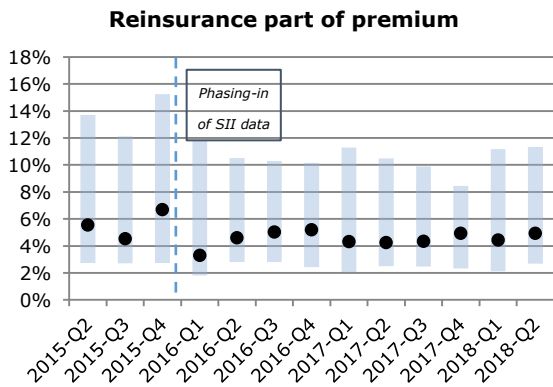
Median exposures to domestic sovereign debt are stable at around 12.3%.

Investment in domestic sovereign debt



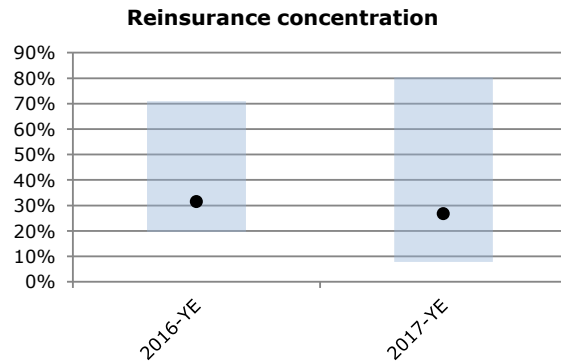
Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2018 Q2}=1,928)

Premiums ceded to reinsurers slightly increased across the whole distribution in Q2.



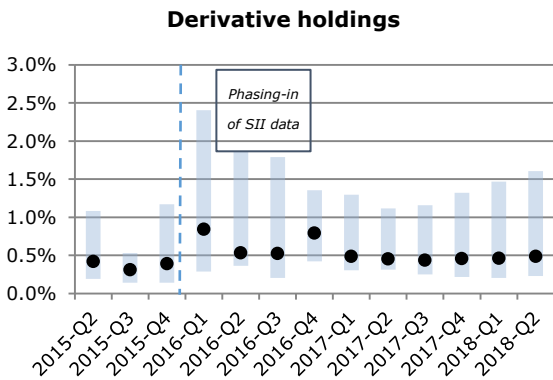
Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=98); QFT prior to 2016

Reinsurance concentration shows a decrease in the median (-2.7 p.p.) and an increase in the 75th percentile (+9.3 p.p.) since the previous year. The higher end of the distribution is, however, much higher.



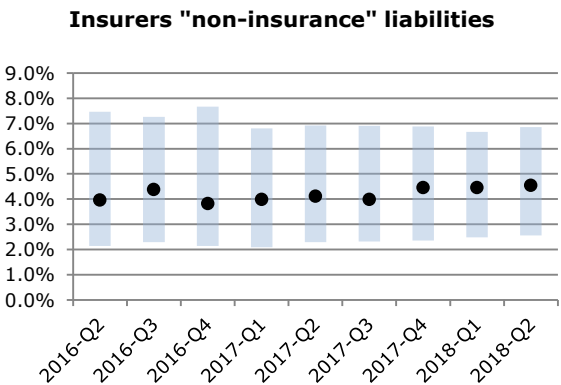
Note: Distribution of indicator (interquartile range, median). Herfindal-Hirschman index computed on the exposure towards reinsurance companies. Source: ARS (N₂₀₁₇=1,231)

Insurers' derivatives holdings remained broadly unchanged.



Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=97); QFT prior to 2016

Insurers' "non-insurance" liabilities remain largely unchanged, with a median of 4.5%.



Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=97)

Insurance (underwriting) risks



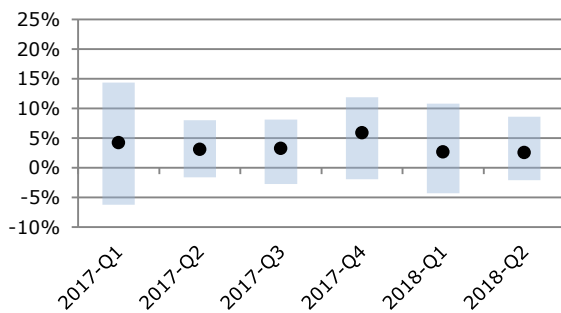
Level: low

Trend: constant

Insurance risks remain unchanged at low level. Both life and non-life annual premium growth are positive for most groups in the sample. No major losses have been reported in Q2.

Annual life premium growth remains positive for most groups in the sample, with a median growth of 2.6% in Q2-2018 (stable compared to Q1).

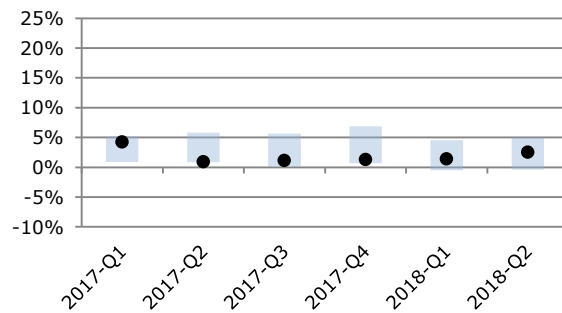
Premium growth - life



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=81)

Median annual non-life premium growth increased in Q2-2018 to 2.6%, from 1.4% in Q1.

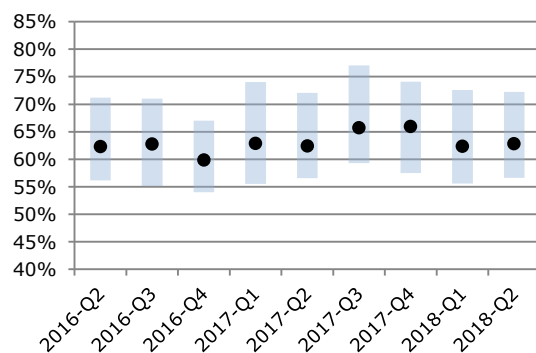
Premium growth - non-life



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N_{2018 Q2}=77)

Loss ratios remain overall stable compared to Q1-2018, with a median value of around 63%.

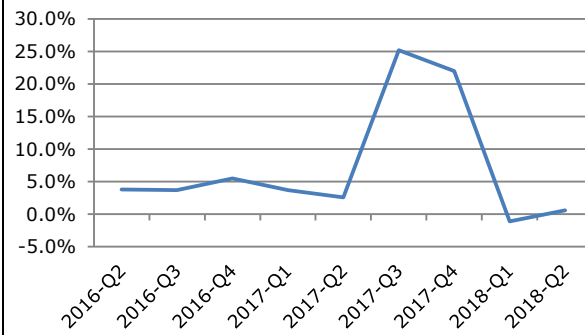
Loss ratio (gross)



Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2018 Q2}=1,489)

The catastrophe loss ratio is at 0.6% in Q2-2018, slightly up from the previous quarter (-1.1%) and somewhat lower than in the same quarter of 2017 (2.6%).

Catastrophe loss ratio



Note: Cumulative year-to-date loss ratio. Source: Munich Re

Market perceptions



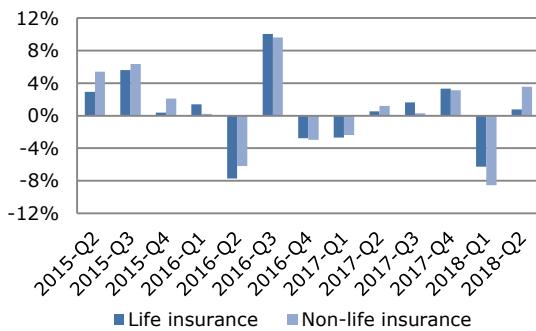
Level: medium

Trend: constant

Market perceptions remain constant at medium level. Insurance stocks outperformed the overall market and there has been a slight improvement in insurers' external ratings since the last assessment. An increase in the upper tail of the distribution of price to earnings ratios (P/E) has been observed.

Insurance stock prices outperformed the overall market. The difference is especially marked for non-life insurance.

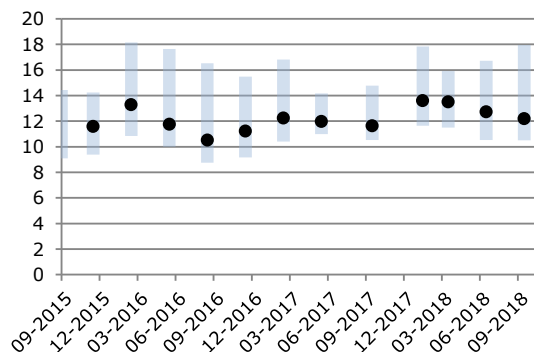
Outperformance of insurance stock prices



Note: Outperformance over 3-month periods vs Stoxx 600. Source: Bloomberg Finance L.P.

An increase in the upper tail of the distribution of P/E ratios has been observed, while the median slightly decreased.

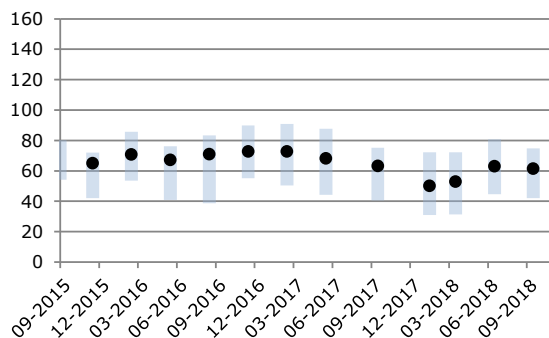
Insurers' price/earnings ratio



Note: Distribution of indicator (interquartile range, median). Source: Bloomberg Finance L.P. (N=32)

Insurance CDS spreads remain overall unchanged since the previous assessment.

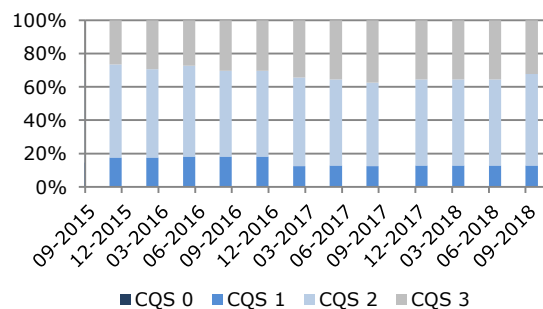
Insurers' CDS spreads



Note: Distribution of indicator (interquartile range, median). Source: Bloomberg Finance L.P. (N_{2018 Q2}=15)

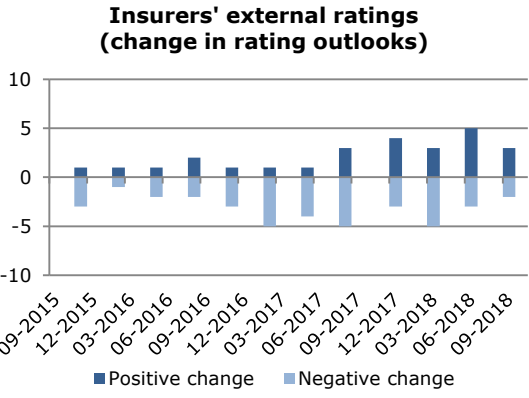
Insurers' external ratings slightly improved with a decrease in the proportion of insurers with a credit quality step (CQS) equal to 3 in favour of those with a CQS of 2.

Insurers' external ratings (credit quality steps)




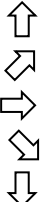
Source: Standard & Poor's via Bloomberg Finance L.P. (N_{2018 Q2}=31)

Positive rating outlooks (3) outnumbered negative outlooks (2).



Source: Standard & Poor's via Bloomberg Finance L.P. (N₂₀₁₈ Q2=31)

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. Information on claims and insurance losses due to natural catastrophes also contribute to this risk category.

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.

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 October 2018

© European Insurance and Occupational Pensions Authority (EIOPA), Frankfurt, 2018. All rights reserved.

This report provides an interim risk-update, updating previous Risk Dashboards. Legal basis of this report is Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), and in particular Article 32 (Assessment of market developments) thereof.

The charts and analyses found in this report are occasionally based on third party material. EIOPA is not responsible for the accuracy or completeness of such data. Third party material is protected by intellectual property rights such as copyright, tradename or similar rights, and may be subject to other terms and conditions. Therefore, reproduction and further distribution of such material is subject to the permission of that third party.