

RISK DASHBOARD

January 2018¹

Risks	Level	Trend
1. Macro risks	High	→
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	Medium	↑
Market perceptions	Level	Trend
8. Market perceptions	Medium	→

Key observations:

- Risk exposures for the insurance sector remained overall stable. Despite positive macro and market trends the risks related to low interest rates and to potential credit risk mispricing still represented important concerns for the EU insurance industry.
- Observed improvements in the solvency ratios were mainly driven by the increase in the Eligible Own Funds.
- Some profitability and underwriting indicators deteriorated due to the impact of the recently observed natural catastrophes.
- Market perception remained stable with some improvements observed in the rating outlook.

¹ Reference date for the quarterly data is Q3-2017 unless otherwise indicated (data extracted on 05/01/2018), while the cut-off date for most other indicators is beginning of January 2018.

Macro risks



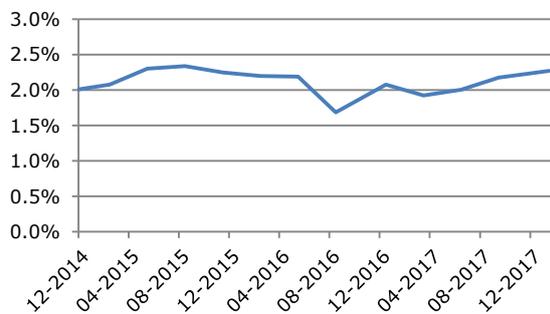
Level: high

Trend: constant

Risks originating from the macroeconomic environment remained stable and high. Improvements have been observed across most indicators, but were not sufficient to change the overall risk picture. The improving prospects for economic growth still contrast with the persistence of structural imbalances, such as fiscal deficit. The accommodative stance of monetary policy has been reduced only very gradually, with low interest rates continuing to put a strain on the insurance sector.

Real GDP growth continued to increase and should approach 2.3% over the coming four quarters.

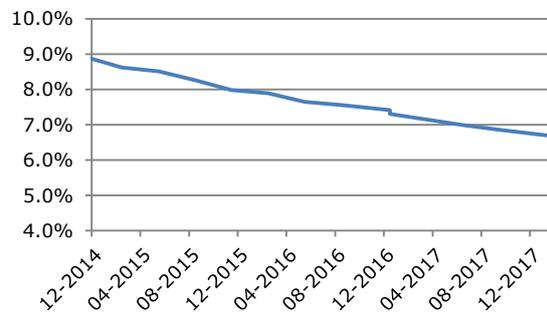
GDP consensus forecast



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

The weighted average of the unemployment rate continued its downward trend, reaching 6.7% in the third quarter of 2017 (last available observation).

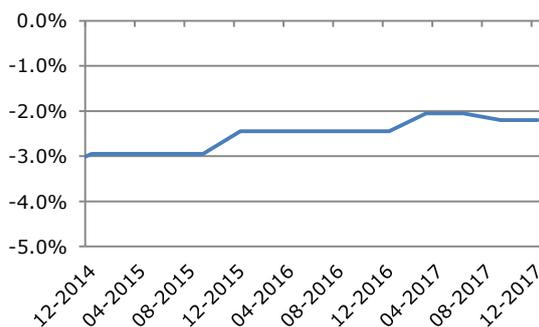
Unemployment rate



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

The indicator on fiscal balances remained stable when compared to the second quarter of 2017, at -2.2% of GDP.

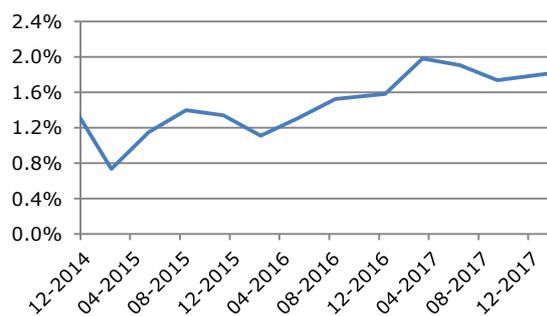
Fiscal balance



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

The inflation forecast slightly increased since the previous quarter, now pointing to an inflation rate around 1.8% over the coming four quarters.

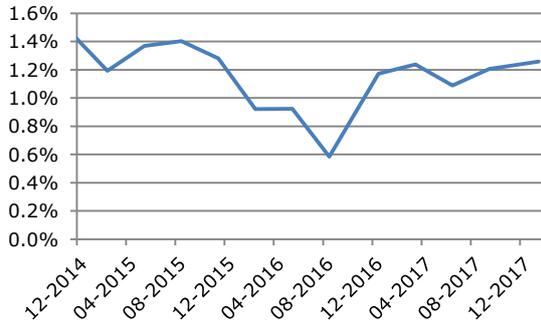
CPI consensus forecast



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 the 10 year swap rate increased from 1.2% in September 2017 to 1.3% in January 2018.

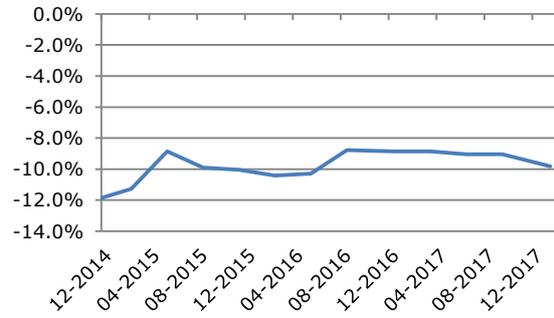
10Y swap rates



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

The weighted average of the credit-to-GDP gaps of major economies further decreased in 2017 Q3, driven mainly by developments in the Euro area, Switzerland and China.

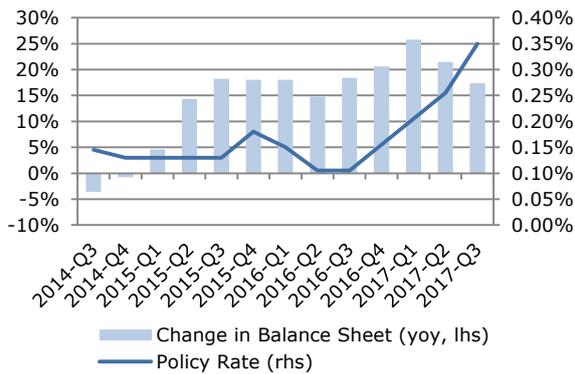
Credit-to-GDP gap



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

The indicator on the state of monetary policy confirmed the developments observed in the previous quarter, with a further increase in policy rates and a continued decline in Central Banks' balance sheets.

State of monetary policy



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

Credit risks



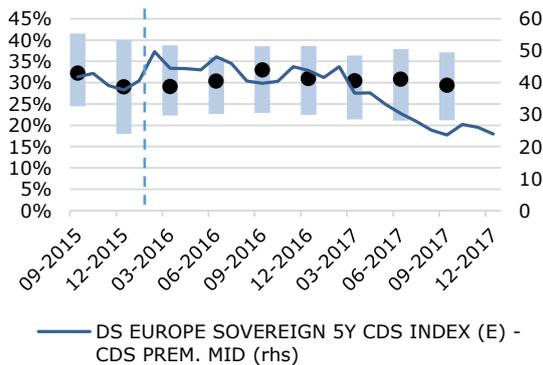
Level: medium

Trend: constant

Credit risks remained constant at a medium level whereas observed spreads continued to decline. The average rating of investments has seen some marginal improvements. Concerns on the pricing of the risk premia remain.

CDS spreads remained slightly unchanged. Exposures to government bonds remained high and largely unchanged between 20% and 40% of total assets for most insurance groups.

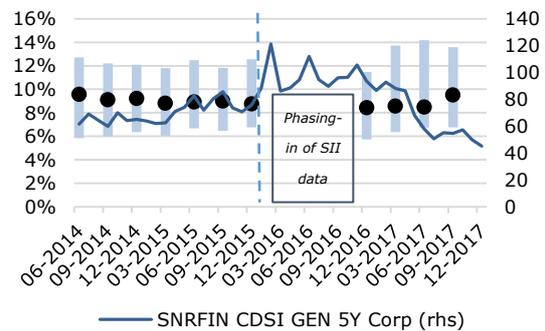
Investments in government bonds



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=96); QFT prior to 2016

Spreads for unsecured financial bonds decreased since last September. Median exposures increased by 1 p.p. from the previous quarter.

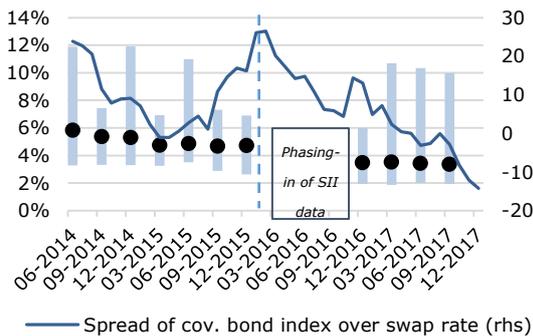
Investments in corporate bonds - financials, unsecured



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=60); QFT prior to 2016

Spreads for secured financial bonds kept declining, with the distribution of exposures broadly unchanged.

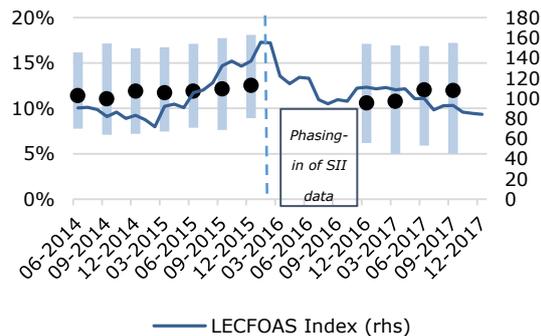
Investments in corporate bonds - financials, secured



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=60); QFT prior to 2016

Spreads slightly decreased since September while median exposures stabilised.

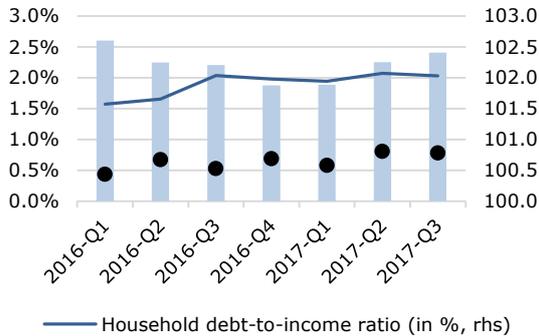
Investments in corporate bonds - non-financials



Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=60); QFT prior to 2016

Median exposures to loans and mortgages to individuals remained stable, but a minor increase in the upper end of the distribution could be observed.

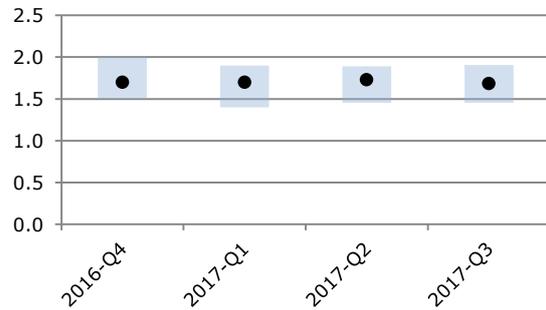
Investments in loans and mortgages to individuals



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_{2017 Q3}=96), ECB

Credit quality of investments was almost stable, with an average credit quality step corresponding to a rating between A and A+ (S&P).

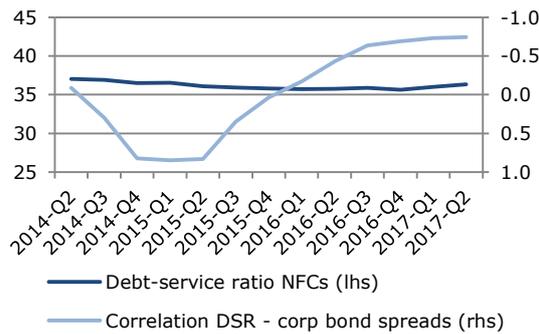
Average rating of investments (credit quality step)



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=90)

Corporate bond spreads continued to be negatively related to non-financial corporates' debt service, pointing to a 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



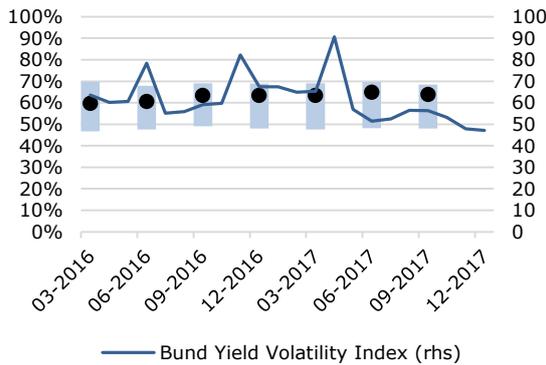
Level: medium

Trend: constant

Market risks remained stable at a medium level despite a reduction of the volatility on prices was observed. Only price to book value of European stocks moved in the direction of risk increase.

Bond price volatility decreased slightly since September and median exposures decreased by around 1 p.p. when compared to 2017 Q2.

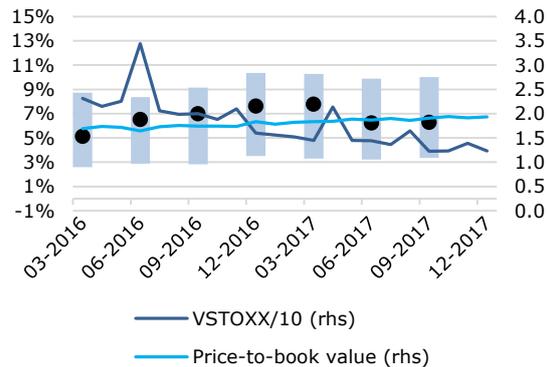
Investments in bonds



Note: Left scale shows the distribution of exposures (interquartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=96)

VSTOXX is at the same level as in September, despite some observed volatility during the months in between. P/B value slightly increased. Median exposures to equity remained stable.

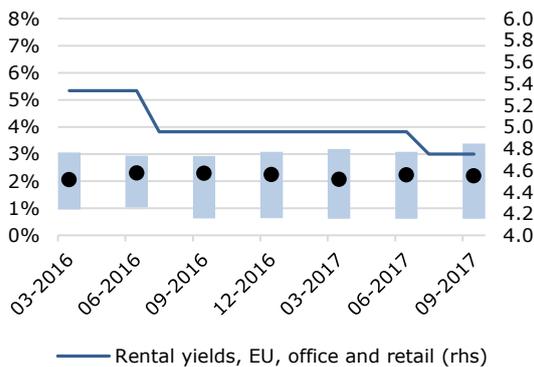
Investments in equity



Note: Left scale shows the distribution of exposures (interquartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=96); QFT prior to 2016

Rental yields are based on Q4 2016 data. Median exposure is unchanged at around 2%.

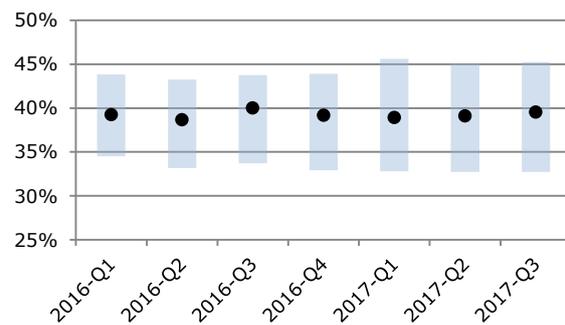
Investments in property



Note: Left scale shows the distribution of exposures (interquartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N₂₀₁₇ Q3=96); QFT prior to 2016

The median level of concentration of the assets has moved closer to 40%.

Concentration of assets



Note: Herfindal Hirshman index computed on six balance sheet asset classes (government bonds, corporate bonds, equities, properties, cash and equivalent and loans and mortgages). Distribution of indicator (interquartile range, median). Source: QFG (N₂₀₁₇ Q3=96)

Liquidity and funding risks



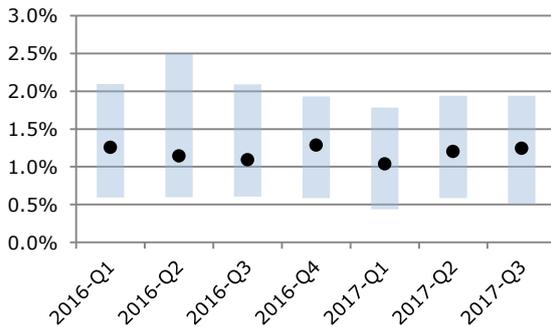
Level: medium

Trend: constant

Liquidity and funding risks were constant at a medium level in 2017 Q3 and remained a minor issue for insurers. Catastrophe bond issuance significantly decreased when compared to the record high registered during the previous quarter. The low volume of issued bonds made the indicator less relevant.

The median share of cash holdings remained almost unchanged when compared to the previous quarter.

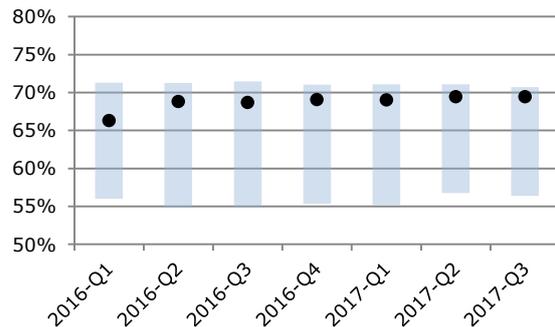
Cash holdings



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=96)

The proportion of more liquid assets in the portfolios of insurance undertakings remained stable.

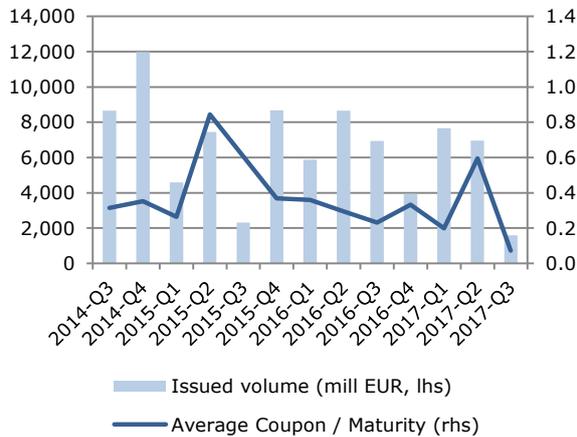
Liquid assets ratio



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=96)

The average coupon to maturity indicator significantly decreased in 2017 Q3, as well as bond issuance volumes.

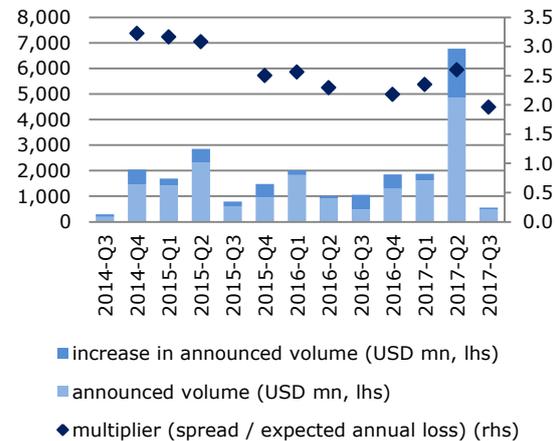
Bond issuance



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

During Q3 cat bond issuance failed to reach USD 1 bn for the first time in 2017, which could be explained by the record high observed in Q2.

Cat Bond Issuance



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

Profitability and solvency



Level: medium

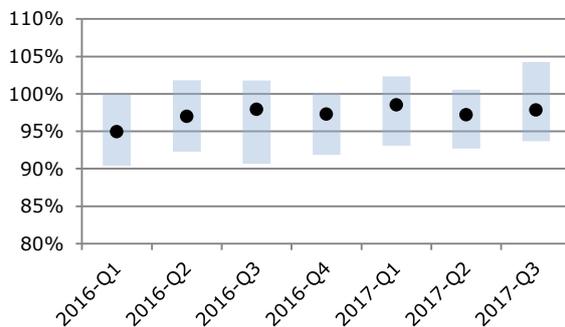
Trend: constant

Profitability and solvency risks remained stable at a medium level. A deterioration of the net combined ratio was observed in the tail (90 percentile) of the distribution mainly populated by reinsurers in this quarter.

SCR ratios have improved across all types of insurers mainly due to an increase of the Eligible Own Funds. This has been especially marked for life solo companies.

The net combined ratio deteriorated when compared to the previous quarter, although the reported median value is still below 100%.

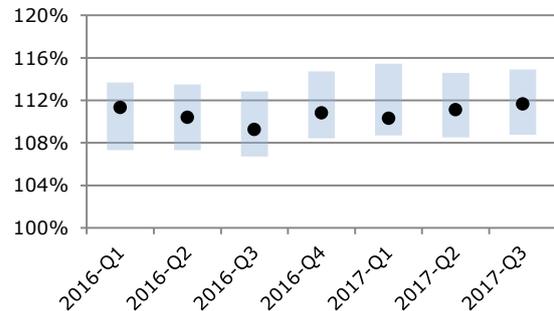
Net combined ratio - non-life



Note: Distribution of indicator (interquartile range, median).
Source: QRS (N_{2017 Q3}=1,400)

Asset over liabilities remained broadly stable, with the median value increasing only slightly by 0.5 p.p.

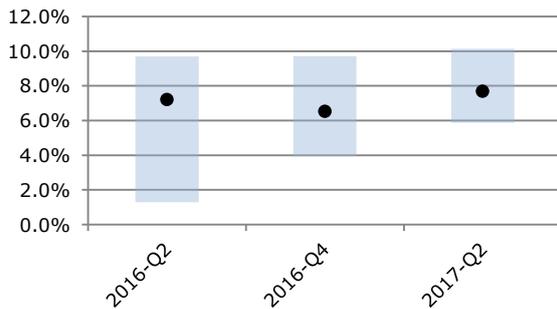
Assets over liabilities



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=96)

In Q2-2017 annualised figures of the return on excess of assets over liabilities (used as a proxy of return on equity) showed an improvement both in the median and lower quartile values.

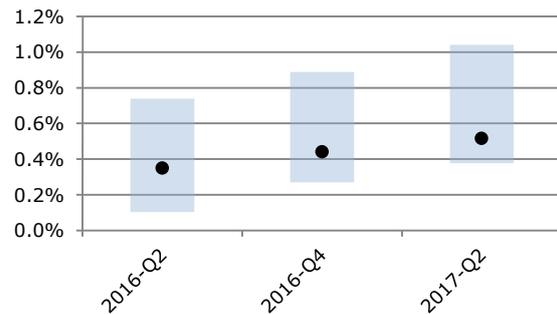
Return on excess of assets over liabilities



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q2}=84)

In the first half of 2017 the median annualised return on assets slightly improved compared to the year-end 2016, as is the whole distribution.

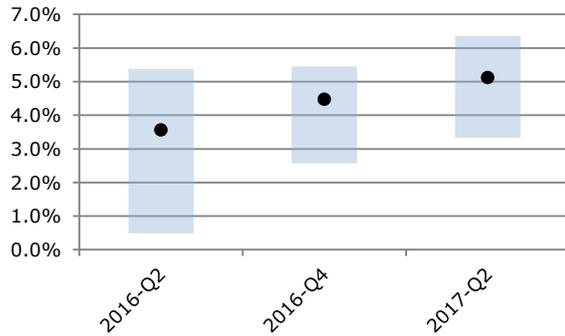
Return on assets



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q2}=87)

The indicator showed a constant increasing trend with the median slightly above 5%.

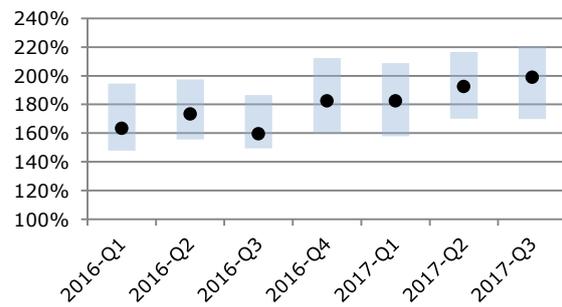
Return to premiums



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q2}=88)

The median SCR ratio at group level increased by around 6 p.p. to 199%.

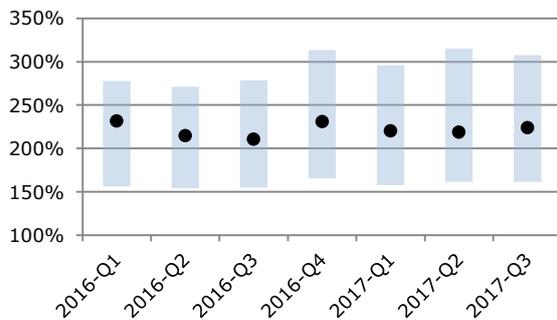
SCR ratio - groups



Note: Distribution of indicator (interquartile range, median).
Source: "Total" QFG (N_{2017 Q3}=96)

The increase in the SCR ratio for non-life solo companies has been more modest than for groups and life solos (+5 p.p., to 224%).

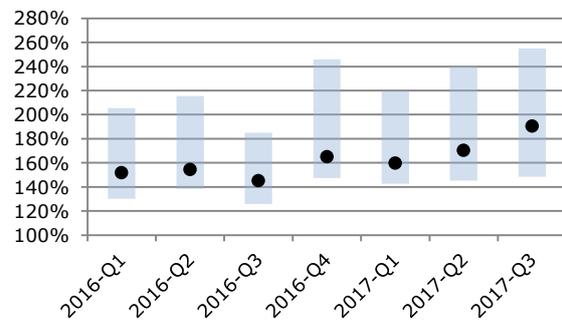
SCR ratio - non-life



Note: Distribution of indicator (interquartile range, median).
Source: QRS (N_{2017 Q3}=1,244)

The median SCR ratio for life solo companies increased by 20 p.p. to 190%.

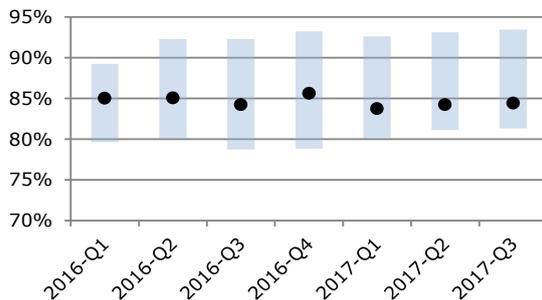
SCR ratio - life



Note: Distribution of indicator (interquartile range, median).
Source: QRS (N_{2017 Q3}=523)

The share of Tier 1 in total own funds remained high and stable, reporting a median value around 84%.

Tier 1 own funds to total own funds



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=97)

Interlinkages & imbalances



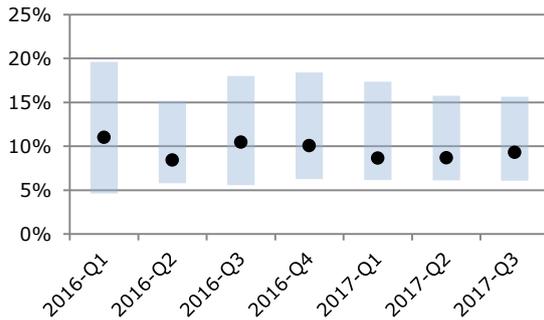
Level: medium

Trend: constant

Risks in this category remained constant at a medium level. Investment exposures to banks and other insurers increased slightly from the previous quarter.

Exposures to banks marginally increased, with the reported median value going up by 0.6 p.p.

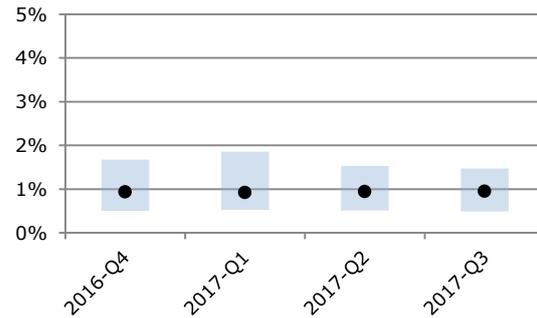
Investments in banks



Note: Distribution of indicator (interquartile range, median). The methodology has been amended from the previous release and exposures applied retrospectively. Source: QFG (N_{2017 Q3}=91)

Exposures to other insurance companies remained low when compared to previous quarters.

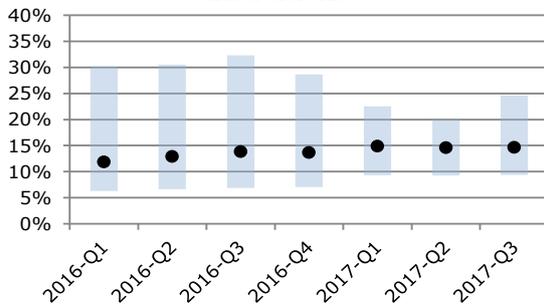
Investments in insurances



Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2017 Q3}=95)

The third quartile of the distribution of investments in other financial institutions has increased by 4.7 p.p to close to 25%.

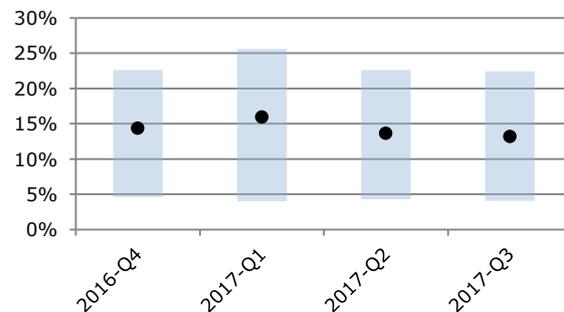
Investments in other financial institutions



Note: Distribution of indicator (interquartile range, median). Source: QFG (N_{2017 Q3}=95)

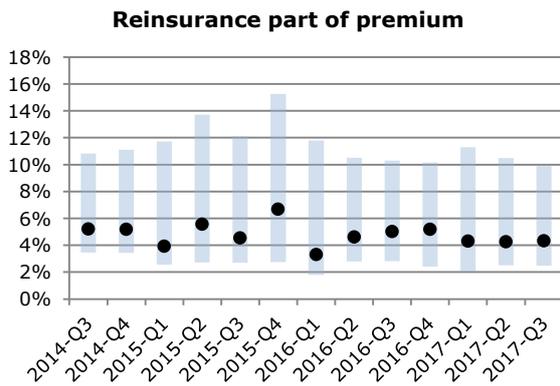
The home bias in investment allocation to sovereign debt remained stable, with a median value fluctuating around 13%.

Investment in domestic sovereign debt



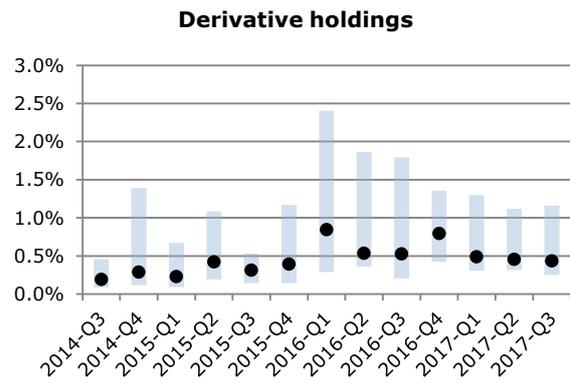
Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2017 Q3}=1,979)

The median value of the reinsurance part of premium remained stable.



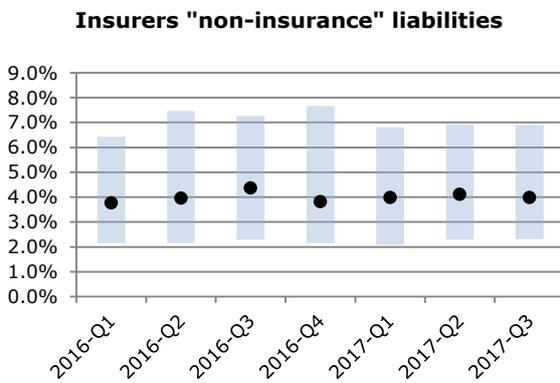
Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=95); QFT prior to 2016

Insurers' derivative holdings remained stable relative to Q2.



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=96); QFT prior to 2016

Non-insurance related indebtedness remained barely unchanged since the previous quarter.



Note: Distribution of indicator (interquartile range, median).
Source: QFG (N_{2017 Q3}=96)

Insurance (underwriting) risks



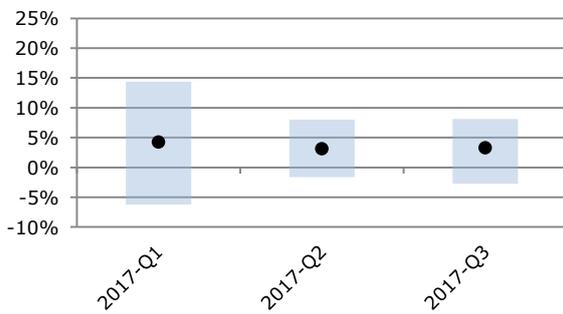
Level: medium

Trend: large increase

Insurance risks increased when compared to 2017 Q2 and are now at a medium level. This was essentially driven by the significant increase in the catastrophe loss ratio resulting from the impact of the catastrophic events observed in Q3 mainly on reinsurers' technical results. This is also reflected in the loss ratio. Other indicators in this risk category still point to a stable risk exposure.

The median growth rate of gross written premiums for life business remained stable, although a reduction in the 25th percentile is observed.

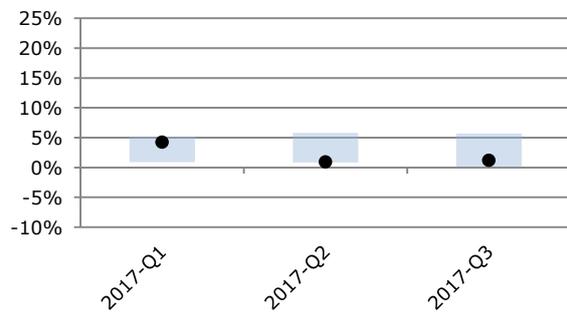
Premium growth - life



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N_{2017 Q3}=85)

The distribution of the growth rate of gross written premiums for non-life business was broadly stable when compared to previous quarters.

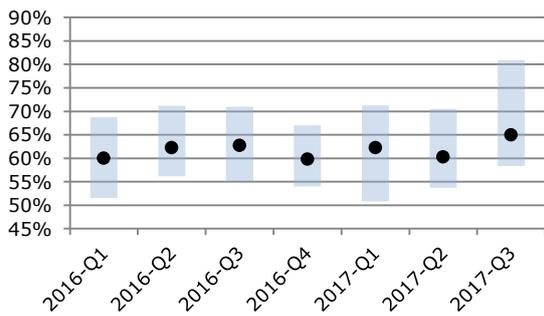
Premium growth - non-life



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N_{2017 Q3}=78)

Loss ratios increased across the whole distribution, the reported median value and the higher quartile reaching the 65% the 81% respectively.

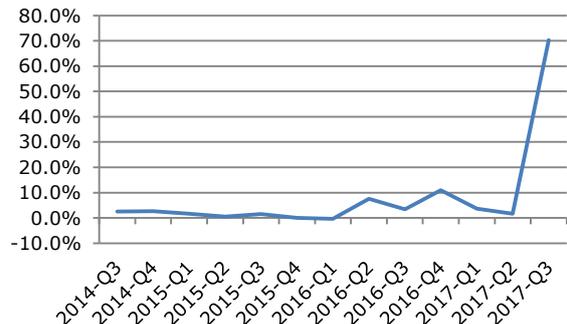
Loss ratio (gross)



Note: Distribution of indicator (interquartile range, median). Source: QRS (N_{2017 Q3}=1,381)

Significant increase in the nat cat loss ratio in 2017 Q3 due to the impact of hurricanes Harvey, Irma and Maria, already foreseen in the previous release.

Catastrophe loss ratio



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

Market perceptions



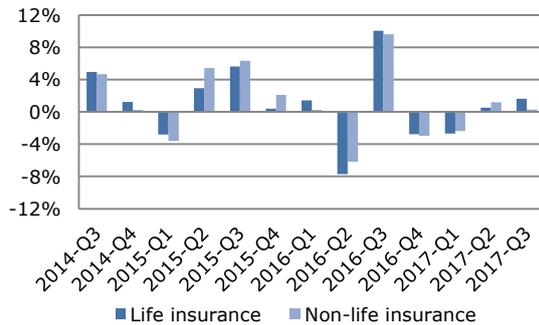
Level: medium

Trend: constant

Market perceptions remained constant, with the improvement in external rating outlooks outweighing the observed increase in price to earnings ratios. Insurance stocks slightly outperformed the market, especially for life insurance, and CDS spreads reduced.

Insurance industry slightly outperformed the market in 2017 Q3, especially for life insurance.

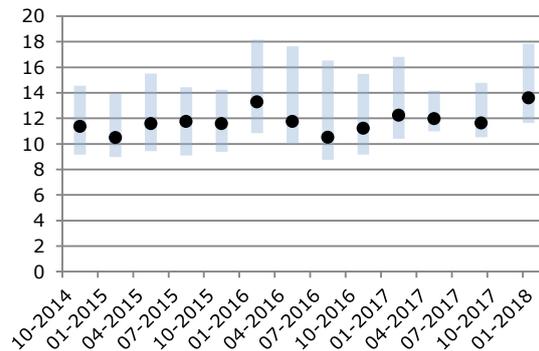
Outperformance of insurance stock prices



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

Price-to-earnings ratios increased from the previous release across the whole distribution.

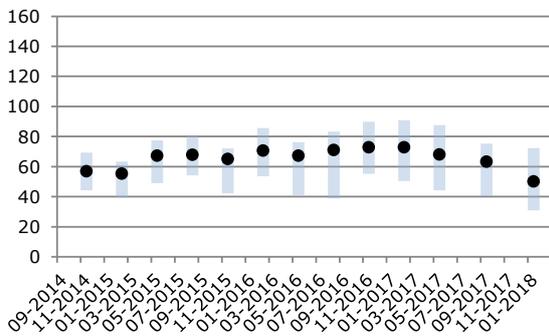
Insurers' price/earnings ratio



Note: Distribution of indicator (interquartile range, median). Source: Bloomberg Finance L.P. (N=33)

There has been a decrease in CDS spreads for most insurance groups in the sample.

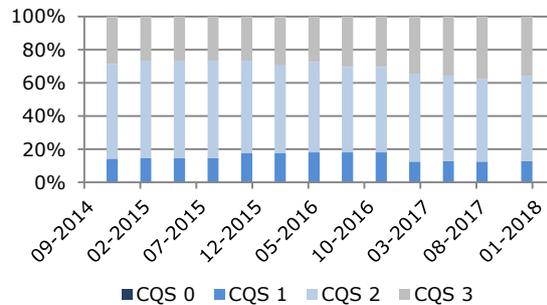
Insurers' CDS spreads



Note: Distribution of indicator (interquartile range, median). Source: Bloomberg Finance L.P. (N_{2017 Q3}=16)

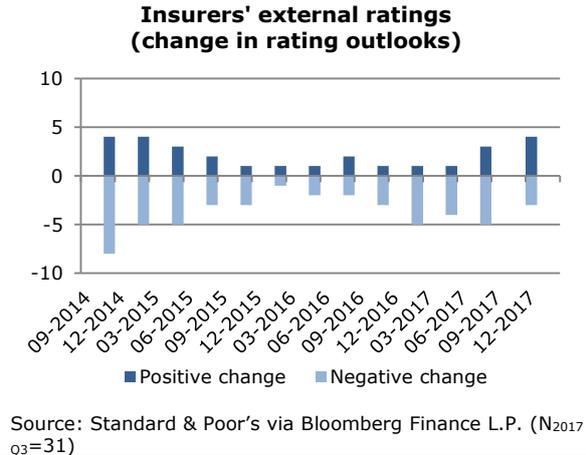
The credit rating quality marginally improved.

Insurers' external ratings (credit quality steps)



Source: Standard & Poor's via Bloomberg Finance L.P. (N_{2017 Q3}=31)

Positive rating outlooks outnumbered negative outlooks.



APPENDIX

Level of risk		Very high High Medium Low
Trend		Large increase Increase Constant Decrease Large decrease

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 signals the structural change in the series driven by the transition from Solvency I to Solvency II reporting.

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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.

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