

# RISK DASHBOARD

July 2018<sup>1</sup>

Risks	Score	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	Score	Trend
8. Market perceptions	Medium	→

## Key observations:

- Macro risks declined from high to medium level, reflecting the improvement in recent economic data and the ongoing normalization of monetary policy. Nonetheless, persisting low yields and recent adverse developments such as increased protectionism should not be neglected.
- Higher volatility in bond markets since March led to an increase in market risks. Spreads increased across all bond segments but credit risk remains at medium level.
- Profitability and insurance risks benefited from the fading out of the impact of last year's natural catastrophes on (re)insurers' technical results. Solvency ratios remain robust, though the reliance of some life insurers on transitional measures is high.
- Market perceptions were marked by an overall positive change in insurance groups' external rating outlooks, which was counterbalanced by an underperformance of insurance stocks relative to the overall market.

<sup>1</sup> Reference date for company data is Q1-2018 for quarterly indicators and 2017-YE for annual indicators. The cut-off date for most market indicators is mid-June 2018.

# Macro risks



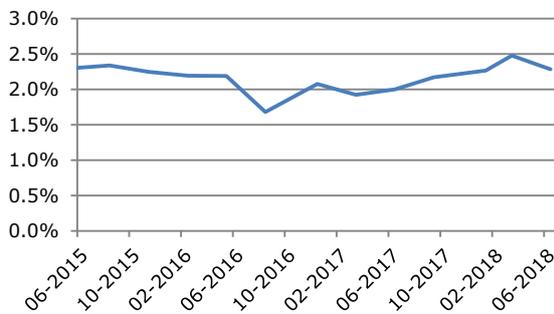
Level: medium

Trend: decrease

Macro risks are down from high to medium level. This decrease in assessed risk reflects the improvement in recent economic data and the ongoing reduction in quantitative easing by major central banks. The continuing low level of interest rates as well as concerns about the strength of economic recovery due to for e.g. increased protectionism weight on the risk assessment.

The indicator on forecasted GDP growth slightly declined since the previous assessment. This was due to both downward revisions in predicted growth and a slower pace of recovery expected in early 2019 for most major economic areas.

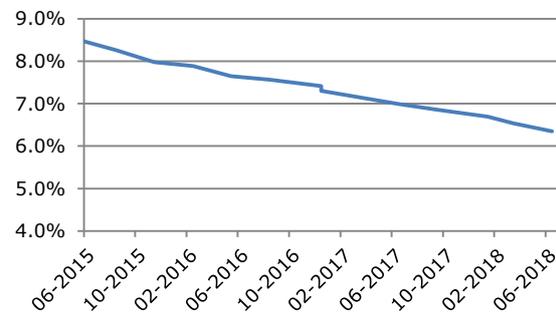
**GDP consensus forecast**



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 are still reducing across major economic areas, with the weighted average indicator reaching 6.3%.

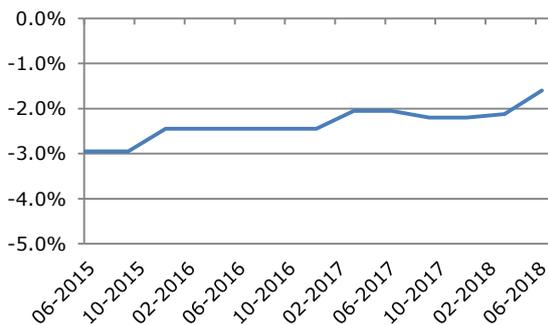
**Unemployment rate**



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

The indicator on fiscal balances is now above 2%, reflecting mostly a continued reduction in the EU budget deficit.

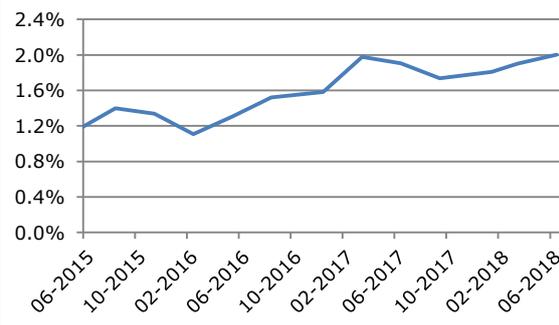
**Fiscal balance**



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

The indicator on forecasted inflation is at 2%, broadly unchanged since the previous assessment.

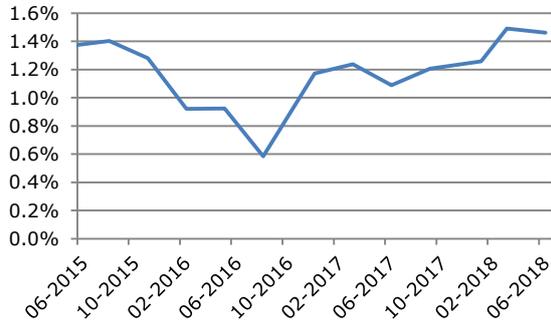
**CPI consensus forecast**



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

Swap rates remained broadly unchanged since March. EUR rates slightly decreased and USD rates slightly increased.

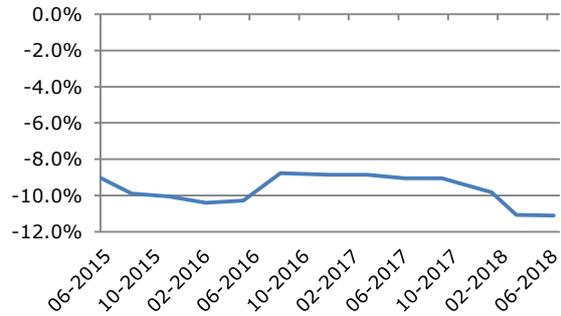
**10Y swap rates**



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

The indicator on credit-to-GDP gap is barely unchanged since the previous assessment, remaining at around -11% and reflecting mostly the still negative gaps in the Euro area, US and UK.

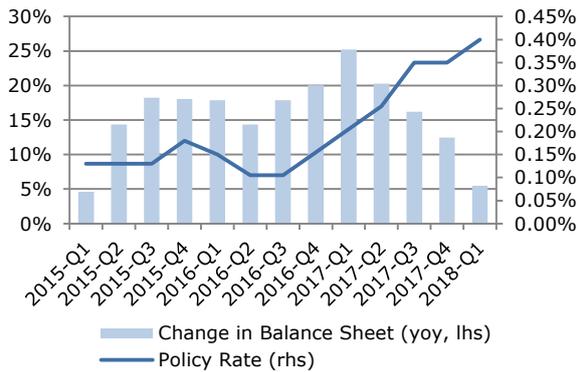
**Credit-to-GDP gap**



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

The indicator on the state of monetary policy signals a significant reduction in risk in Q1-2018, due mostly to a considerable contraction in the pace of expansion of Central Banks' balance sheet assets. Policy rates increased in the US.

**State of monetary policy**



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

# Credit risks



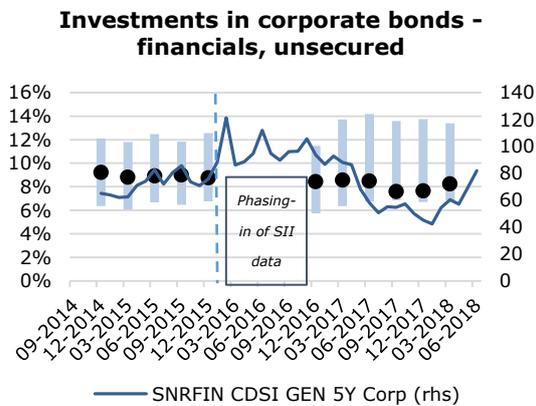
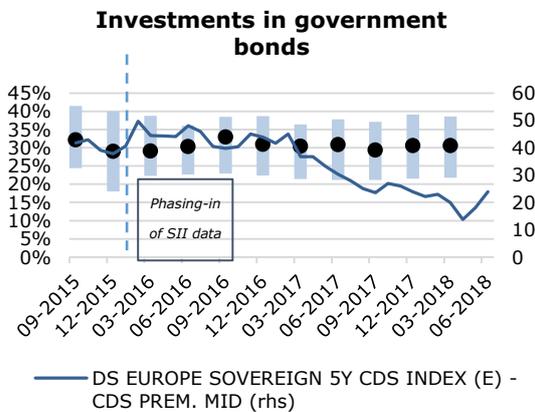
Level: medium

Trend: constant

Credit risks remain unchanged at medium level. Since the previous assessment, spreads have increased across all bond segments. For financial corporate bonds the increase in spreads could be linked with the significant underperformance of the financial sector equity indices relative to the overall market. Nonetheless, there are still concerns about potential risk mispricing. Household indebtedness is high, but insurers' exposures to housing mortgages and other loans are overall limited.

Exposures to government bonds remained overall unchanged, with the median exposure at around 31%. CDS spreads increased in Europe since March, though this has been driven by sovereign bond markets' developments in only some countries.

Exposures to unsecured financial bonds remained broadly unchanged since Q4-2017, with a reported median exposure of around 8%. Spreads increased considerably since March, which could possibly be linked with the relative underperformance of the financial sector equity indices.

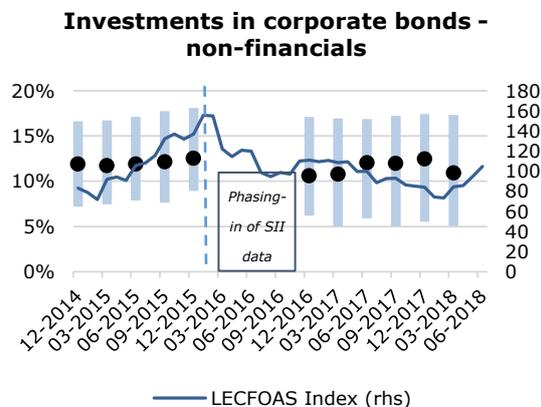
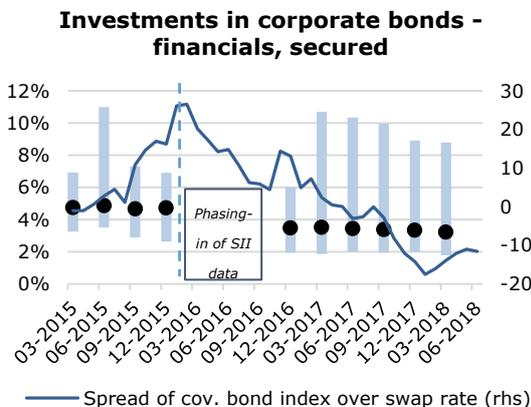


Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N<sub>2018</sub> Q1=97); QFT prior to 2016

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<sub>2018</sub> Q1=62); QFT prior to 2016

Insurance groups' investments in secured financial bonds remained largely at the same levels as in the previous assessment. Spreads increased for this segment, but slightly less than for unsecured financial bonds.

Median exposures to non-financial corporate bonds decreased from 12.5% to 10.9%. Spreads have increased in tandem with a general increase in yields across several credit quality segments.

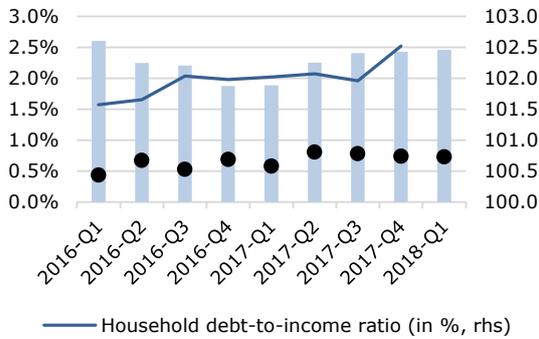


Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N<sub>2018</sub> Q1=62); QFT prior to 2016

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Exposures to loans and mortgages to individuals remain broadly unchanged, with a median exposure of only 0.7%. Household indebtedness is still high, as evidenced by the debt-to-income ratio of 102.5%.

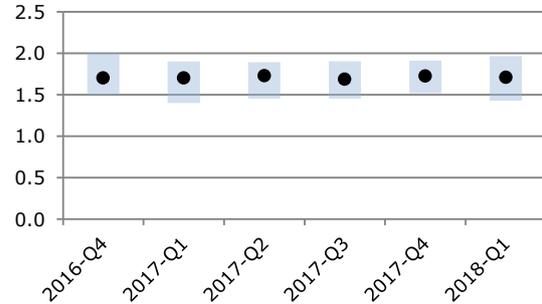
### Investments in loans and mortgages to individuals



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<sub>2018 Q1</sub>=97), ECB

The median average rating of investments remained at a credit quality step of around 1.7.

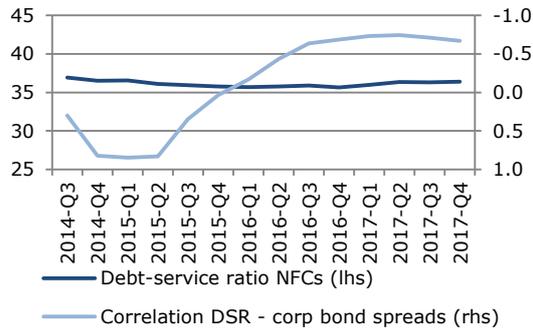
### Average rating of investments (credit quality step)



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2018 Q1</sub>=89)

The indicator on fundamental credit risk still signals a possible risk mispricing, as evidenced by the still negative correlation between the debt-service ratio of non-financial corporations and corporate bond spreads.

### 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

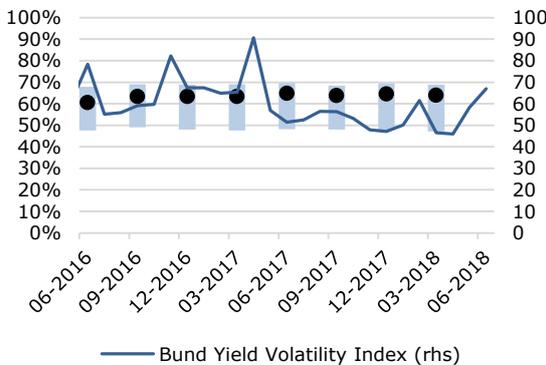
Trend: increase

Market risks increased since the previous assessment, but remain at a medium level. The increase in assessed risk is mostly due to higher volatility in European bond markets since March. Insurance groups' investments in different asset classes remained broadly unchanged.

*Exposures to bonds remain overall stable in Q1-2018. Bond volatility has considerably increased since March potentially due to increased political uncertainty.*

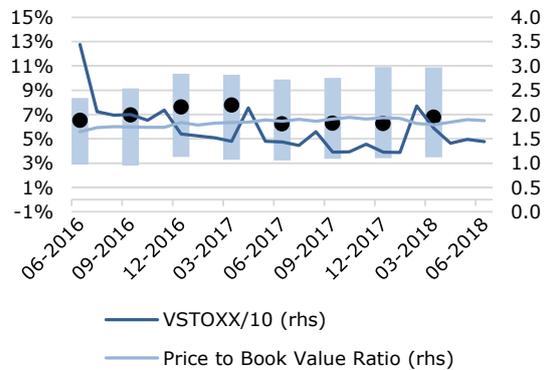
*Volatility of equity prices has reduced after the peak in February, but remained above the low levels witnessed during most of 2017. Exposures to equity remained overall stable, though Q1-2018 Solvency II data reports a minor increase in median exposures (+0.5 p.p.).*

**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<sub>2018 Q1</sub>=97)

**Investments in equity**

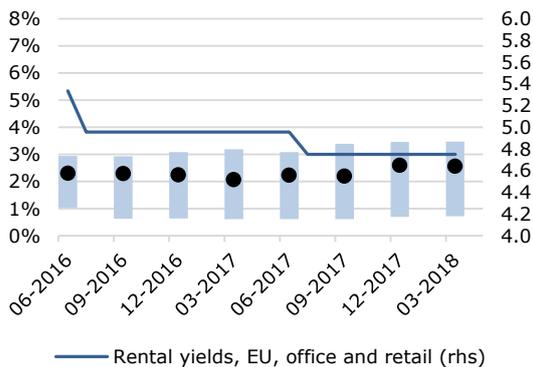


Note: Left scale shows the distribution of exposures (inter-quartile range and median), right scale the risk measure. Source: Bloomberg Finance L.P., QFG (N<sub>2018 Q1</sub>=97); QFT prior to 2016

*Exposures to property remained overall stable since the previous assessment, as well as rental yields for both office and retail.*

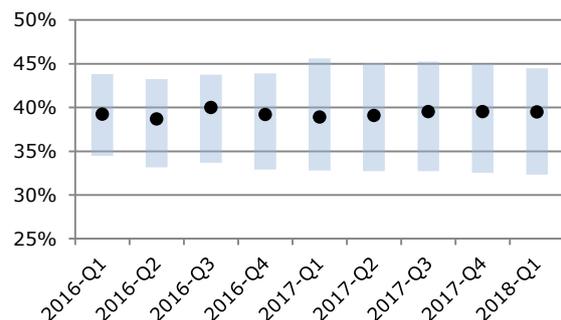
*The indicator on the concentration of assets is barely unchanged when compared to Q4-2017. Median concentration of assets remains around 40%.*

**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<sub>2018 Q1</sub>=97); QFT prior to 2016

**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<sub>2018 Q1</sub>=98)

# Liquidity and funding risks



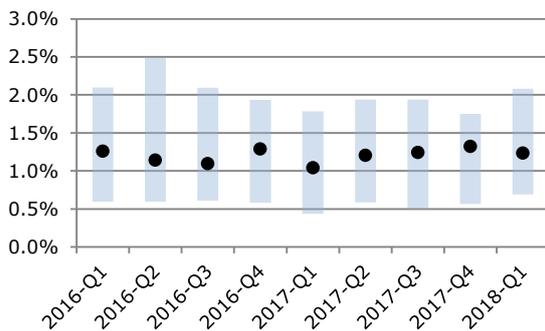
Level: medium

Trend: constant

Liquidity and funding risks remain constant at medium level. Funding indicators show slightly easier funding conditions for insurance groups in Q1-2018, as depicted by the decrease in the average coupon to maturity indicator and the increase in announced issuance volumes of catastrophe bonds.

Median cash holdings relative to total assets remain only slightly above 1%. Minor upward shifts in the 25<sup>th</sup> and 75<sup>th</sup> percentiles have been reported for Q1-2018.

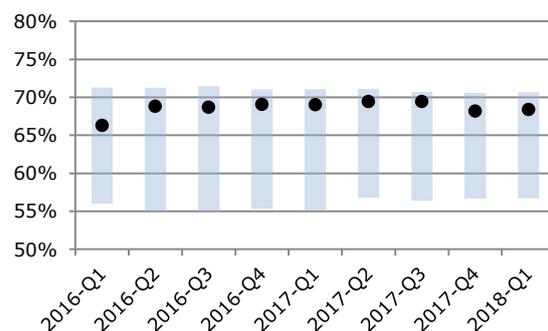
**Cash holdings**



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=97)

The distribution of the liquid assets ratio remained stable since the previous quarter. Liquid assets represent around 68% of total assets (median figures).

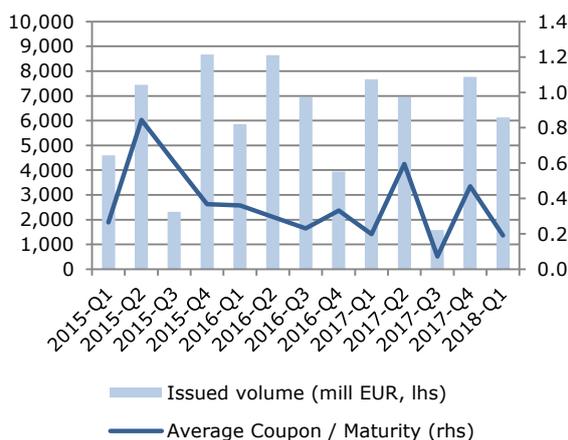
**Liquid assets ratio**



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=97)

Bond issuance has decreased from around 7.8 to 6.1 billion EUR in Q1-2018. The average coupon to maturity indicator also declined.

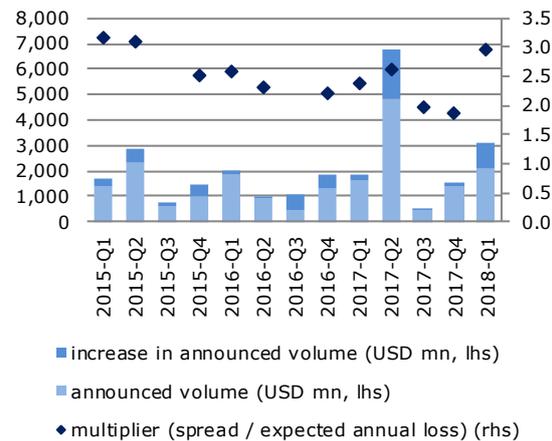
**Bond issuance**



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

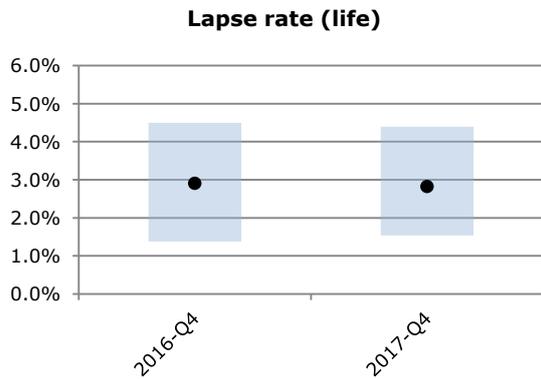
Cat bond issuance has increased since Q4-2017 and is among the highest levels observed in the last 3 years. Issued volumes were 48% higher than announced, but the average multiplier increased from around 2 to 3 in Q1-2018.

**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<sub>2017 Q4</sub>=91)

## Profitability and solvency

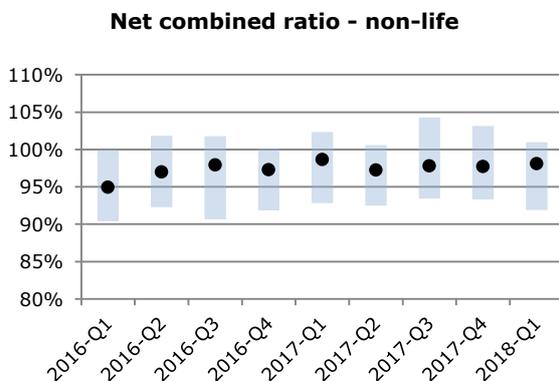


Level: medium

Trend: constant

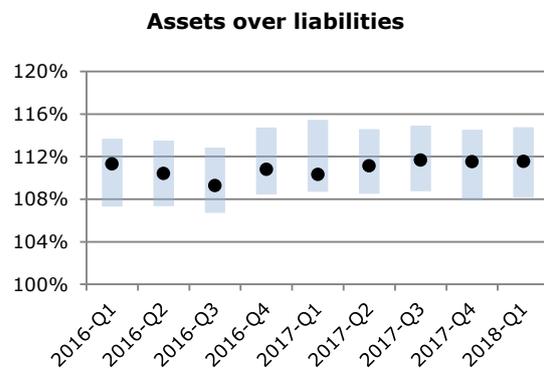
Profitability and solvency risks remained unchanged at medium level. Profitability of the non-life segment returned to normal levels after the fading out of the impact of last year's natural catastrophes on their combined ratios. Overall, solvency ratios remain robust and improved slightly for groups and both life and non-life undertakings. Nevertheless, some life insurers' reliance on the use of transitionals to meet solvency capital requirements continues to be high.

A downward shift in the distribution of combined ratios is observed in Q1-2018, possibly due to the fading out of the impact of the natural catastrophes occurred in the second half of last year on (re)insurers' technical results. Median net combined ratio is below 100% at 98%.



Note: Distribution of indicator (interquartile range, median).  
Source: QRS (N<sub>2018 Q1</sub>=1399)

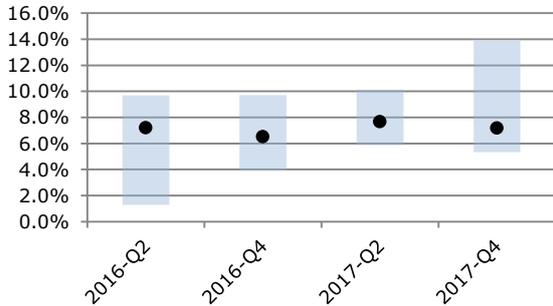
The indicator on assets over liabilities remains quite stable, with a median close to 112%.



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2018 Q1</sub>=97)

The return on the excess of assets over liabilities (used as a proxy of return on equity) for Q4 2017 improved for the 75<sup>th</sup> percentile (+3.8 p.p.) but slightly declined for the median (-0.5 p.p.).

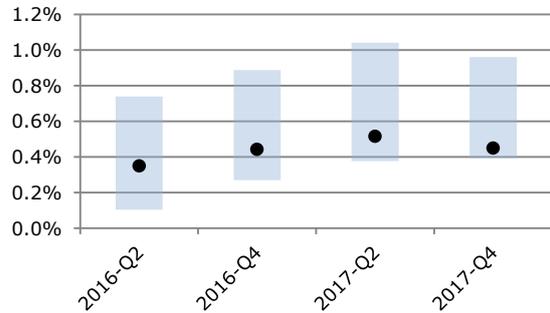
**Return on excess of assets over liabilities**



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2017 Q4</sub>=93)

The median return on assets has slightly decreased when compared to Q2 2017, but is at the same level as in Q4 2016.

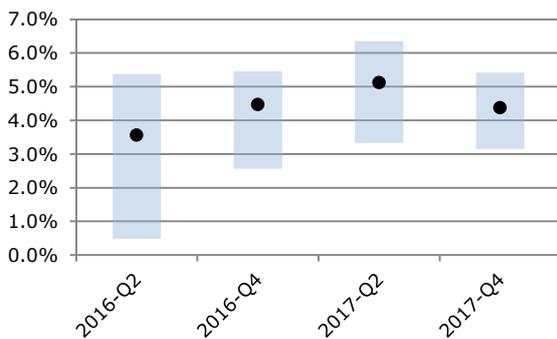
**Return on assets**



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2017 Q4</sub>=93)

The return to premiums indicator has decreased across the whole distribution when compared to Q2 2017, but changed only slightly from Q4 2016.

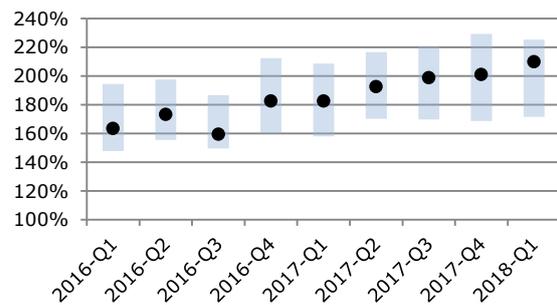
**Return to premiums**



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2017 Q4</sub>=93)

Q1-2018 Solvency II data indicates a slight improvement in median SCR ratios of insurance groups (+9 p.p.) and also in the lower end of the distribution.

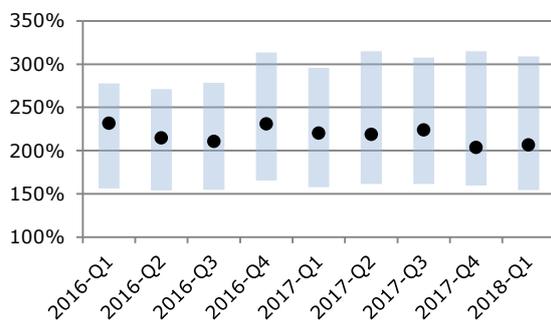
**SCR ratio - groups**



Note: Distribution of indicator (interquartile range, median).  
Source: "Total" QFG (N<sub>2018 Q1</sub>=96)

The distribution of SCR ratios for non-life companies has remained overall stable since the previous quarter.

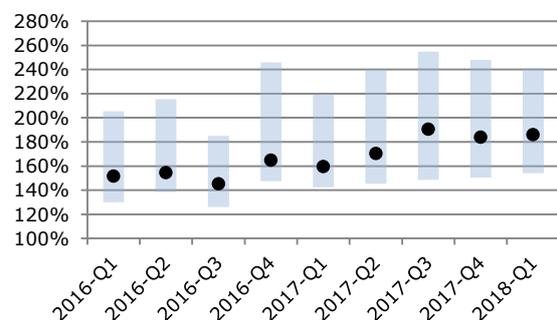
**SCR ratio - non-life**



Note: Distribution of indicator (interquartile range, median).  
Source: QRS (N<sub>2018 Q1</sub>=1,106)

SCR ratios for life companies show a slight improvement in Q1 both for the median (+2 p.p.) and the 25<sup>th</sup> percentile (+3.7 p.p.).

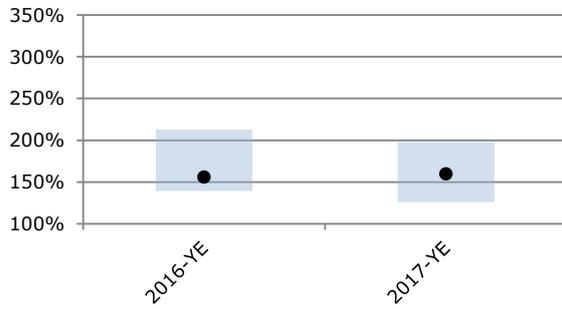
**SCR ratio - life**



Note: Distribution of indicator (interquartile range, median).  
Source: QRS (N<sub>2018 Q1</sub>=473)

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.

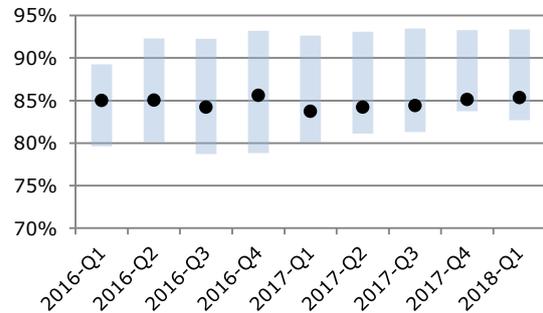
**Solvency ratio - life  
(without transitionals)**



Note: Distribution of indicator (interquartile range, median).  
Source: ARS (N<sub>2017</sub>=299)

The median share of Tier 1 in total own funds has remained close to 85% in Q1-2018.

**Tier 1 own funds  
to total own funds**



Note: Distribution of indicator (interquartile range, median).  
Source: QFG (N<sub>2018 Q1</sub>=98)

# Interlinkages & imbalances



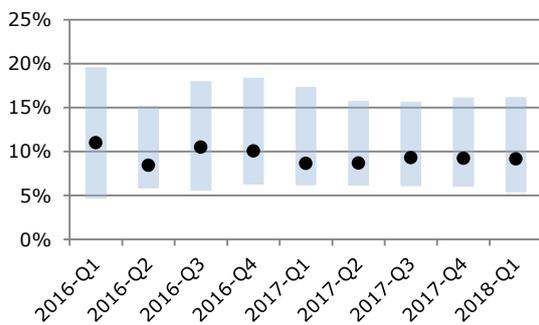
Level: medium

Trend: constant

Interlinkages and imbalances risks remain constant at medium level. Since the previous assessment, the investment exposures to banks, insurers and other financial institutions remained overall stable. 2017 year-end figures for reinsurance concentration show a slight improvement in the median, but also a worsening of the 75<sup>th</sup> percentile, indicating higher concentration for some undertakings.

*Investment exposures to banks remain overall stable, with a median exposure of 9%.*

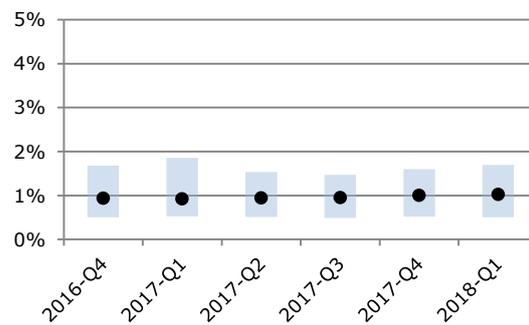
**Investments in banks**



Note: Distribution of indicator (interquartile range, median). The methodology has been amended from the previous release and exposures applied retrospectively. Source: QFG (N<sub>2018 Q1</sub>=93)

*Exposures to other insurers remain stable at very low levels. The median investment exposure is close to only 1%.*

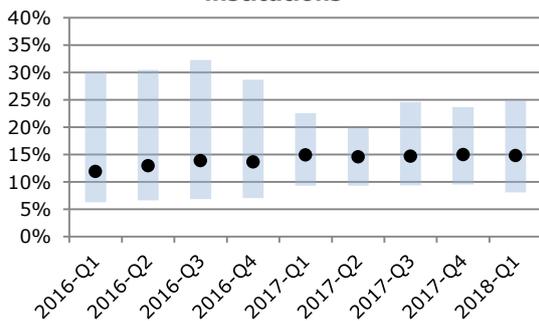
**Investments in insurances**



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=94)

*Median exposures to other financial institutions remain close to 15%.*

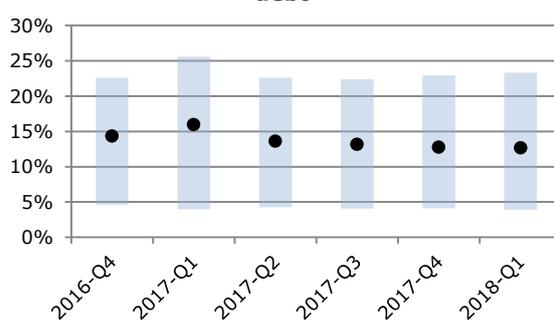
**Investments in other financial institutions**



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=94)

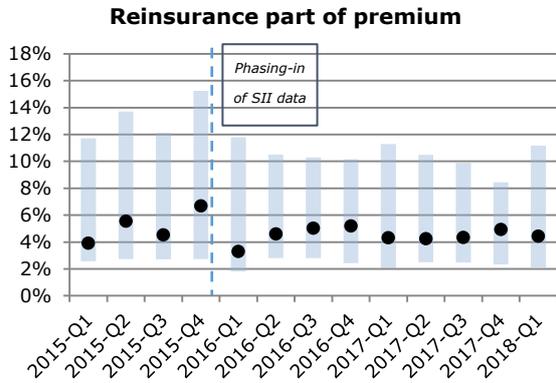
*Insurers' investments in domestic sovereign debt are broadly in line with previous quarters, with the median exposure around 13% of total assets.*

**Investment in domestic sovereign debt**



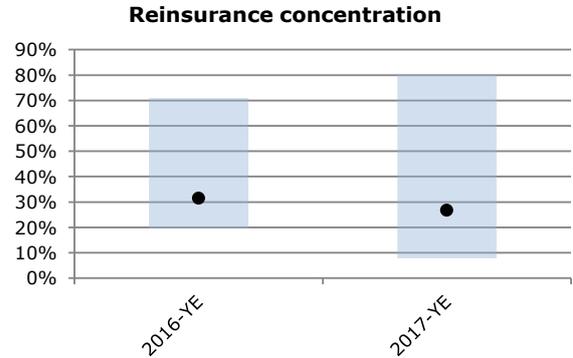
Note: Distribution of indicator (interquartile range, median). Source: QRS (N<sub>2018 Q1</sub>=1,935)

The indicator on premiums ceded to reinsurers shows a slight decrease in the median (-0.5 p.p.) and an increase in the 75<sup>th</sup> percentile (+2.7 p.p.).



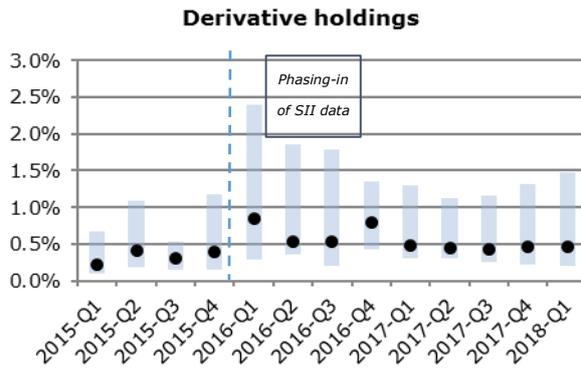
Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=95); QFT prior to 2016

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



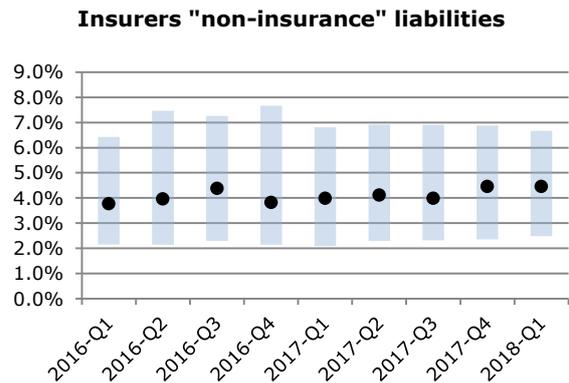
Note: Distribution of indicator (interquartile range, median). Herfindal Hirshman index computed on the exposure towards reinsurance companies. Source: ARS (N<sub>2017</sub>=1,231)

Insurers' derivative holdings remained largely unchanged in Q1, though minor increases have been reported for the upper end of the distribution.



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=97); QFT prior to 2016

Insurers' "non-insurance" liabilities remain low and close to 4% of total assets (median).



Note: Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=97)

# Insurance (underwriting) risks



Level: low

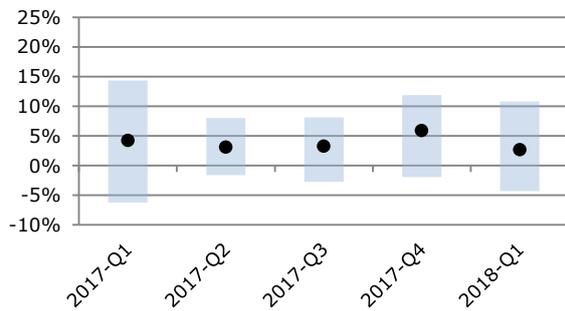
Trend: large decrease

Insurance risks declined from medium to low level, owing mostly to the fading out of the impact of the natural catastrophes occurred in the third quarter of last year on (re)insurers loss ratios. Life and non-life premium growth remain positive, though some deceleration is observed for most groups.

The distribution of life premium growth has shifted slightly down, with median growth going from 5.9% in Q4-2017 to 2.6% in Q1-2018.

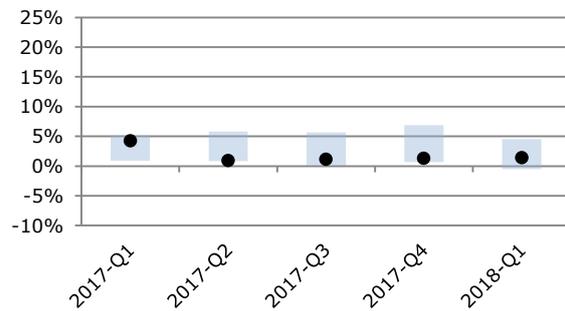
Annual non-life premium growth remains close to 1% (median), though both the lower and upper percentile have decreased.

**Premium growth - life**



Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=84)

**Premium growth - non-life**

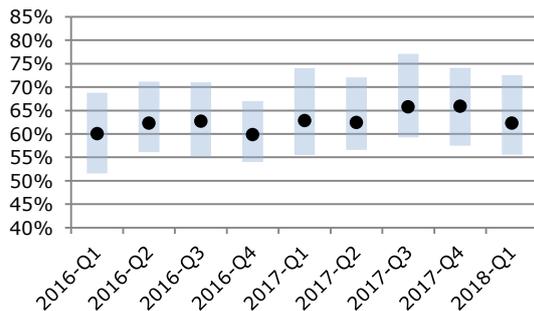


Note: Year-on-year change in gross written premiums. Distribution of indicator (interquartile range, median). Source: QFG (N<sub>2018 Q1</sub>=79)

The whole distribution of loss ratios has shifted downwards, possibly due to the fading out of the impact of the natural catastrophes occurred in the second half of last year on (re)insurers' technical results. Median loss ratio is close to 62%.

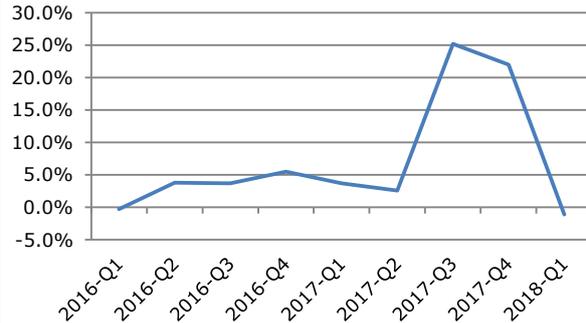
The catastrophe loss ratio is at -1.1% in Q1-2018 due to reserve releases from the previous year. This is after a 2017 year-end cat loss ratio of 22% following the losses with natural catastrophes in Q3.

**Loss ratio (gross)**



Note: Distribution of indicator (interquartile range, median). Source: QRS (N<sub>2018 Q1</sub>=1,433)

**Catastrophe loss ratio**



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

# Market perceptions



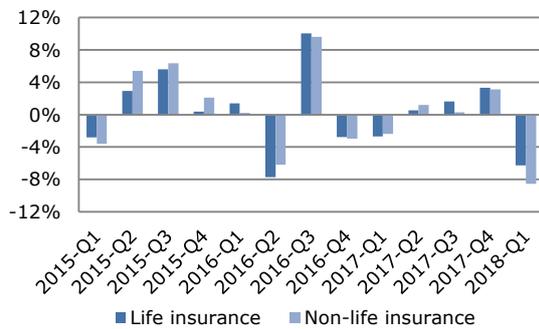
Level: medium

Trend: constant

Market perceptions are constant at a medium level. Since the last assessment, insurers' stocks have underperformed the overall market, though this has been counterbalanced by an overall positive change in external rating outlooks.

*Insurance stock prices underperformed the overall market since the previous assessment, for both life and non-life insurance.*

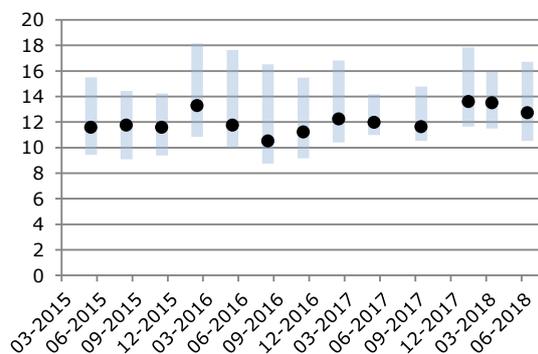
**Outperformance of insurance stock prices**



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

*The range of the distribution of price-to-earnings (P/E) ratio has widened, with the median P/E ratio decreasing to around 13%. This should have been driven by the deterioration in insurers' market performance since March.*

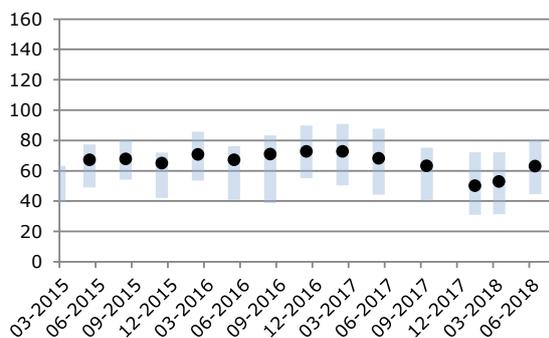
**Insurers' price/earnings ratio**



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

*The whole distribution of insurers' CDS spreads has moved slightly upwards since the Q4-2017 assessment.*

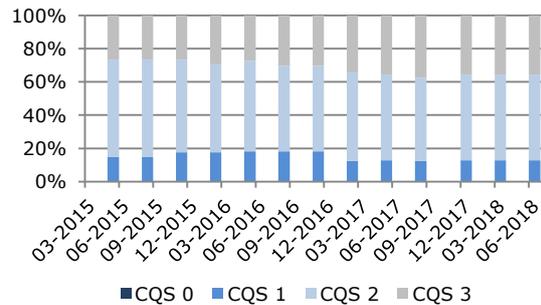
**Insurers' CDS spreads**



Note: Distribution of indicator (interquartile range, median).  
Source: Bloomberg Finance L.P. (N<sub>2018 Q1</sub>=16)

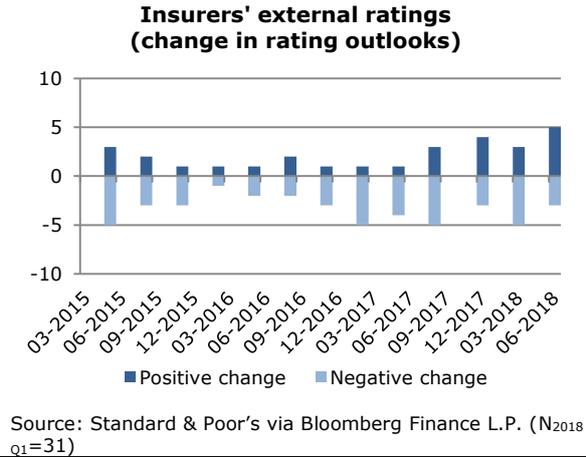
*No change in external ratings has been observed for insurers since March.*

**Insurers' external ratings (credit quality steps)**



Source: Standard & Poor's via Bloomberg Finance L.P.  
(N<sub>2018 Q1</sub>=31)

Positive rating outlooks (5) outnumbered negative outlooks (3).



## APPENDIX

<b>Level of risk</b>		Very high
		High
		Medium
		Low

<b>Trend</b>		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 July 2018

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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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