Agenda

Introduction

The macroeconomic environment: cyclical upswing continues

Non-life: cat losses cause earnings and capital event in reinsurance

Life re/insurance: accepting the challenge

Q&A
The macroeconomic environment: cyclical upswing continues
The macroeconomic environment

Benign economic outlook: cyclical upswing continues

Real GDP growth in select regions, 2015-2019F

Source: Swiss Re Institute.
The macroeconomic environment

Implications for inflation and interest rates

- Inflation remains moderate in most economies, but is expected to increase gradually, particularly in the US.
- In the UK, inflation is probably close to its peak, but likely to remain elevated.
- US Fed is expected to continue raising rates gradually while ECB and BoJ remain highly accommodative.
- BoE is expected to raise rates by 25bp in 2018 and 2019 each, but this is highly dependent on Brexit negotiations.
- Yields on US long-term government bonds to rise moderately reaching 3.2% by end-2018, pulling up German yields up to 1.0%.

Source: Swiss Re Institute.
Global economic risk map

- **Upside Risk**
  - (US fiscal stimulus, Europe, China)

- **Trend over recent months**
  - Trade war
  - Disorderly Brexit
  - QE tapering
  - Euro area destabilisation
  - China hard landing
  - Geopolitical risks

Source: Swiss Re Institute
The macroeconomic environment

Monetary policy – risk of disruption from QE tapering?

Issuance and purchases of US/Euro area government bonds, 4-quarter sums in % GDP

We do not expect any disruption from QE tapering in our baseline scenario.

Source: Swiss Re Institute.
Concerns over elevated Chinese corporate debt persist

Non-financial sector debt in China
% GDP, Q1 2007 – Q2 2017

- Some recent success in containing further corporate debt build-up
- Risk of a hard landing of the Chinese economy remains a key risk to global growth

Source: IIF, Swiss Re Institute.
Summary

• Global growth likely to remain steady.
• Inflation risks are contained, but rising (US, UK).
• Gradual increase in US interest rates to push global yields moderately higher.
• Some upside risk to growth from fiscal stimulus.
• Key downside risks:
  – Chinese hard landing
  – Trade war
  – Geopolitical risks
Non-life: cat losses cause earnings and capital event in reinsurance
The primary non-life insurance market

US: Nat cat losses and higher claims in casualty cause deterioration in the underwriting results

US combined ratio for FY 2017 to be expected at around 109% due to the hurricane losses

• For H1 2017, the industry combined ratio deteriorated to 100.8%.
• Rate increases in personal lines and commercial auto expected; rate decreases for commercial lines.

US Combined ratios, 2010 to 2017E, %

Source: A.M. Best, Swiss Re Institute.
The primary non-life insurance market

European combined ratio: stable UW results on average

A mixed picture in terms of levels of underwriting results

- Underwriting results in motor insurance deteriorated in most major countries.
- UK results are impacted by the Ogden rate changes which required significant reserve additions for companies writing motor and liability business. Negotiations are underway to provide some relief from the original government proposal.

Combined ratios in Europe, 2010 to 2017E, %

Source: Swiss Re Institute.
The primary non-life insurance market

Global: Softening of commercial insurance rates eased in 2017

Rates fell for the 17th consecutive quarter

• Decline is more pronounced in property than in casualty and financial & professional.
• From a regional perspective, the US casualty rates started to improve, while property was still soft.

Global renewal rate changes, by line of business, Q1 2012 to Q2 2017, %

Source: Marsh, Global insurance market index.
The primary non-life insurance market

Non-life industry ROE declined to 3% from 6% in 2016

Overall profits declined further in 2017, driven by cat losses in the US

- Soft underwriting conditions and low investment yields have dented overall profitability since 2013/14.
- Overall underwriting profitability likely to improve in 2018.

Composition of profits as a % of net premiums earned and ROE, aggregate of eight major markets, 1999-2019F, %

Source: Swiss Re Institute. Aggregate of eight major advanced markets.
The primary non-life insurance market

Growth prospects are improving

Global non-life premiums are forecast to increase by around 3% in real terms in 2018 and 2019

• The positive rate dynamics are likely to add to primary insurance premium growth in the following years, providing some upside risk to the outlook.

• In the longer term, growth will likely be further supported by demand for cover for new and evolving risk exposures.

Source: Swiss Re Institute.
The non-life reinsurance market

Reinsurance profitability has been declining since 2013 due to soft underwriting conditions

2017 results have been significantly impacted by the Hurricanes Harvey, Irma and Maria

• Based on current claims estimates, the combined ratio for 2017 is expected to land at around 115%, full year ROE at around -4%.

• Between 2012 and 2016, low catastrophe losses partially offset headwinds arising from the ongoing low interest rate environment and the overall softening of underwriting conditions.

Reinsurance combined ratio and ROE, 2011 to 2017F, %

Source: Swiss Re Institute.
The non-life reinsurance market

Growth prospects are improving

Global non-life reinsurance premiums are forecast to increase to around 4% in real terms by 2019

• In 2018, advanced markets real non-life reinsurance premium growth are expected to reflect a moderate hardening of rates and slightly stronger nominal primary market growth.

• The growth trend in emerging market premiums is expected to stabilise in 2018 and 2019, driven by stronger sales of primary insurance in all regions.

Real growth of non-life reinsurance premiums, 2015 to 2019F, %

Source: Swiss Re Institute.
The non-life reinsurance market

Summary of non-life reinsurance market

Third quarter 2017 natural catastrophe losses highlight the recent underpricing of insurance risks

- Since 2012, global reinsurance prices have consistently declined, led by US and European Cat price reductions.

- Profitability has been dependent on reserves releases, capital gains and low losses from natural catastrophes.

- Since the New Zealand quake and Japan tsunami in 2011, catastrophe losses have been fairly benign.

- Normalising results – i.e., adjusting them for average catastrophes and reserves releases – shows that reinsurers have not earned an adequate return recently. For example, only ~ 6% for H1 2017.

• Recent natural catastrophe events have cut across all parts of the reinsurance capital base.

• Insufficient returns combined with a reduction in available capital means that prices are likely to rise in general, not just in the loss affected regions.
Life & Health re/insurance: accepting the challenge
The traditional primary life insurance market

Global life insurance premiums up by 3%

Global life premiums are estimated to have risen by 3% in 2017 in real terms, up from 2% in 2016, mostly due to emerging markets

- North America: -2% (driven mainly by the US)
- Western Europe: premiums stagnated
- Developed Asia-Pacific: estimated to have risen modestly (+1%)
- Emerging markets up 10%+

Real premium income growth for traditional life insurance, 2015 to 2019F, %

Source: Swiss Re Institute.
The traditional primary life insurance market

**Profitability remains under pressure**

Lower investment income due to low interest rates remains a significant headwind for insurers

- Industry profitability remains under pressure.
- Indicators suggest some improvement in the outlook, but profitability challenges persist.

Life insurers’ return on equity (in %)

Life insurers’ price-to-book ratio

**Source:** Bloomberg, Swiss Re Institute.
The traditional primary life insurance market

Reallocation of investments towards higher yield assets

Insurers continue to reconfigure their investment portfolios in search of higher yields

- Low investment yields and the introduction of risk-based solvency regimes have impacted insurers’ investment and risk management decisions.

**Current and expected investment returns (in %)**

- **Europe:** 3.3%
- **Japan:** 1.5%
- **South Korea:** 3.5%
- **Taiwan:** 4.3%
- **Hong Kong:** 5.6%
- **Australia:** 5.7%

**Share of insurers intending to increase/decrease investment risk**

- **Increase:**
  - Global: 26%
  - Americas: 20%
  - EMEA: 18%
  - Asia Pacific: 59%

- **Decrease:**
  - Global: -10%
  - Americas: -11%
  - EMEA: -11%
  - Asia Pacific: -9%

**Source:** Standard Life's European Insurance Survey 2015 and Asia Pacific Insurance Survey 2017 (left panel), GSAM Insurance Asset Management survey (right panel).
The medical expense insurance market

Global medex premiums are estimated to have grown by 4% in 2017, down from 5% in 2016

• Slowdown due to weaker results in the US (after period of strong growth due to Affordable Care Act).

• Premiums were up an estimated 2% in Western Europe and 3% in developed Asia-Pacific, but over 10% in emerging markets mostly driven by Asia.

Real premium income growth for medical expense insurance, 2015 to 2019F, %

Source: Swiss Re Institute.
The medical expense insurance market

Growth opportunity in emerging markets

The incidence of chronic diseases (e.g., cardiovascular disease, cancer, and diabetes) is rising

• In India, CVDs, cancer and other chronic diseases caused 53% of total deaths in 2005 and this is forecast to rise to 67% by 2030.
• Critical illnesses put a great financial burden on victims and their families.
• Insurers play a crucial role in increasing awareness and providing attractive solutions.

• Swiss Re conducted a study in 2017 to better understand consumers’ needs & preferences:
  • 4,650 individuals
  • middle- and upper-income class
  • 25-60 years old
  • from 16 cities across India

Respondents’ Willingness To Pay for changes in Critical Illness product features compared to reference options specified (means, in INR/year)

Source: The health insurance frontier in India: understanding consumer preferences for critical illness cover, Swiss Re Institute, October 2017.
The life reinsurance market

Underlying growth in global cessions remains modest

Global cessions picked up sharply in 2016, but this was due largely to a one-off US transaction

• Underlying growth in global reinsurance premiums in 2017 remains modest and this is expected to continue, with weak growth in advanced economies but strong growth in emerging markets.

• Global cessions are estimated to have grown by around 1% in 2017.

Real premium income growth for traditional life reinsurance, 2015 to 2019F, %

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017E</th>
<th>2018F</th>
<th>2019F</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>-9.3%</td>
<td>7.9%</td>
<td>1.1%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Advanced markets</td>
<td>-0.4%</td>
<td>7.2%</td>
<td>-1.0%</td>
<td>-0.4%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>North America</td>
<td>0.2%</td>
<td>7.0%</td>
<td>-2.4%</td>
<td>-2.4%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>1.5%</td>
<td>1.7%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Developed Asia *</td>
<td>-6.1%</td>
<td>18.1%</td>
<td>2.3%</td>
<td>6.1%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Emerging markets</td>
<td>-43.9%</td>
<td>12.2%</td>
<td>15.7%</td>
<td>10.8%</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Notes: Table provides growth rates for life business alone (ie, excluding medex). E=estimates, F=forecasts. * Including Australia and New Zealand
Source: Swiss Re Institute.
The life reinsurance market

Growth opportunities through Solvency II and longevity risk transfers

Global cessions are forecast to grow only marginally over the next two years

• Solvency II has underpinned interest in reinsurance: boost available capital, reduce required capital or to economise on reserves.

• Longevity risk transfer is another growth area: picked up in H1 2017 after slowing in 2016.

Longevity swaps and longevity risk transfer transactions in 2017

<table>
<thead>
<tr>
<th>Date</th>
<th>Fund / Sponsor</th>
<th>Provider(s)</th>
<th>Solution</th>
<th>Transaction size</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Unnamed Defined Benefit Pension Scheme</td>
<td>Zurich / SCOR</td>
<td>Longevity swap &amp; reinsurance</td>
<td>371 million</td>
</tr>
<tr>
<td>March</td>
<td>Rothesay Life</td>
<td>Prudential Financial</td>
<td>Longevity reinsurance</td>
<td>1200 million</td>
</tr>
<tr>
<td>June</td>
<td>Skanska Pension Fund</td>
<td>Zurich / SCOR</td>
<td>Longevity swap &amp; reinsurance</td>
<td>384 million</td>
</tr>
<tr>
<td>July</td>
<td>Pension Insurance Corporation PLC</td>
<td>SCOR</td>
<td>Longevity swap &amp; reinsurance</td>
<td>1299 million</td>
</tr>
<tr>
<td>August</td>
<td>British Airways Pension Scheme</td>
<td>Partner Re, Canada Life Re</td>
<td>Longevity swap &amp; reinsurance</td>
<td>2073 million</td>
</tr>
<tr>
<td>August</td>
<td>SSE PLC Pensions</td>
<td>Pension Insurance Corporation PLC, Legal &amp; General</td>
<td>Buy-ins, longevity insurance &amp; reinsurance</td>
<td>1555 million</td>
</tr>
<tr>
<td>September</td>
<td>MMC UK Pension Fund</td>
<td>Canada Life Reinsurance, The Prudential Insurance Company of America (PICA)</td>
<td>Longevity swap &amp; reinsurance</td>
<td>4338 million</td>
</tr>
</tbody>
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Q&A
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