Reinsurance portfolio steering

Edi Schmid, Chairman Swiss Re Institute & Group Chief Underwriting Officer
We steer our portfolio by managing growth, profitability and risk exposure.
Nat Cat is a large and growing risk pool, with additional opportunities linked to the protection gap

Nominal growth rates (2000-2018)
- 6.0-6.5%
- 5.5%
- 5.0%

Nominal growth projections (2019-2023)
- 6.4%
- 5.6%
- 5.1%

In 2018, 76% of Nat Cat exposure was uninsured...

...leaving a Nat Cat protection gap opportunity of **USD 222bn**

Long-term growth is supported by various fundamental drivers

- **Human-induced factors of climate change, higher population density and overbuilt flood zones**
- **Increasing prosperity in HGMs in Nat Cat exposed markets**
- **Global migration to Nat Cat exposed regions such as coastlines**
- **Public entities increasingly adopting re/insurance as a risk management tool**

Source: Swiss Re Institute and Swiss Re internal estimates
Swiss Re is a key player in Nat Cat, reflecting our vision to make the world more resilient

Our Nat Cat reinsurance market share

% of tail risk

- Swiss Re’s market share reduced after 2012 but has been growing again since 2017 – in line with the pricing cycle
- Swiss Re is now the #1 player globally
- Swiss Re has leading shares in Japan and Australia

Swiss Re is a market leader in Nat Cat

Our annual expected loss by geographic region

- Broad global diversification of Nat Cat exposure
We have a track record of solid costing accuracy...

Over the cycle, our Nat Cat costing is accurate: Actual losses are closely in line with our expectations

Annual Nat Cat claims and expected losses vs. premiums, USD bn

Cumulative Nat Cat claims and expected losses vs. premiums, USD bn

Robust alignment of expected claims versus loss experience across various time periods

Note: Group figures, gross of retro. Premiums net of brokerage/commission
Swiss Re’s global multi-peril risk model

- 190+ perils models, unparalleled coverage (e.g. Flood Australia, China, India, US, Canada)
- Advanced by team of 40+ scientists

Impactful and evolving R&D efforts...

Learning from risk taking experience
Close connection to underwriting and claims
Long history of claims insights

Superior proprietary research
R&D targeted to where it is most impactful
Current focus: TCNA and climate change

Rapid feedback loops
Vulnerability updates post 2017 hurricanes
Model updates post 2017/18 typhoon losses

...leveraging consistent global infrastructure

Differentiated underwriting decisions and client access thanks to fully embedded in-house R&D

...for differentiating outcomes

Underwriting decisions leverage our R&D

Steering based on integrated risk view across entire value chain

Expanding access to risk pools in partnership with our clients (e.g. US flood offering with 10+ clients)
Swiss Re’s Nat Cat portfolio delivers attractive returns, benefitting from substantial diversification

### Profitability of Nat Cat book is well above our hurdle rate...

<table>
<thead>
<tr>
<th>Year</th>
<th>Nat Cat return on economic capital, % (new business, as costed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>25%</td>
</tr>
<tr>
<td>2014</td>
<td>23%</td>
</tr>
<tr>
<td>2015</td>
<td>22%</td>
</tr>
<tr>
<td>2016</td>
<td>17%</td>
</tr>
<tr>
<td>2017</td>
<td>16%</td>
</tr>
<tr>
<td>2018</td>
<td>19%</td>
</tr>
<tr>
<td>2019</td>
<td>18%</td>
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</table>

- Even at the low point of the Nat Cat pricing cycle, Swiss Re’s profitability remained well in excess of our hurdle rate
- Substantial growth in 2019 was achieved at relatively stable rates

### ...supported by our global and diversified business model

- Benefit of broadly diversified Nat Cat book, and diversification with other underwriting and financial risks
- TC North Atlantic contribution post-diversification is only approximately 10% of its original standalone risk

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1 As of July in each respective year
We expect an uplift in earnings generated by profitable growth of our Nat Cat portfolio.

Budget expected to increase less than change in capital deployed

- Year-on-year increase in Nat Cat capital deployed was 36% at July renewals
- Our growth is more focused on peak scenarios – the increase in shortfall and capital deployed is therefore greater than the increase in expected premiums/losses

US GAAP earnings expected to rise in spite of higher budget

- ...even assuming flat pricing, given volume growth and commission income
- Volume of Nat Cat business written in 2019 YTD is expected to increase pre-tax earnings by ~USD 150m

Earnings volatility not expected to increase notably

- Growth mainly in peak scenarios rather than Nat Cat working layers
- Net growth expected to enable more diversified Nat Cat portfolio

Nat Cat budget expected to increase for 2020

USD bn


Note: Takes into account profit sharing agreements, reinstatement premiums and impact of late cedent reporting. Budget is net of retro.

Nat Cat growth expected to lead to clear bottom line benefits in the coming years
Alternative Capital Partners (ACP) allows Swiss Re to grow our Nat Cat portfolio in a risk-controlled manner

Increased Nat Cat risk exposure supported by more active use of hedging tools¹

We manage our net risk exposure by ceding excess risks to third-party capital investors

- ACP enables Swiss Re to recapture Nat Cat market share and to proactively manage risk exposure per peril
- The business we write offers attractive returns on capital for both ACP investors and Swiss Re shareholders
- Through risk sharing, Swiss Re earns a commission towards covering our operating expenses
- Hedging of TC North Atlantic enables the business to grow in other perils and therefore improve diversification of risk retained on our balance sheet
- Sidecar platform contributes the majority of the capital relief

Breakdown of capital relief from various hedging tools

99% shortfall basis in 2019

- Other: 20%
- Retro: 10%
- Cat bonds + ILW: 5%
- Sidecar platform: 65%

¹ As of July in each respective year
US Casualty market trends have deteriorated through a soft market

US Commercial P&C rates stagnated for several years...

% premium change, new and renewed policies, by size of corporate accounts

...while the average size of large tort verdicts has been rising...

Top 50 US tort verdicts: median verdict value, USD m

...litigation finance has expanded, driving lawsuit frequency...

- Large corporates and law firms increasingly use third-party capital when pursuing multi-million-dollar lawsuits
- Funds investing in litigation are raising sizeable amounts (~USD 9bn currently committed according to Swiss Re Institute)
- Among US law firms, use of litigation funding increased by >400% between 2013 and 2017, and a further ~20% in 2018

...and attitude of the US public and jurors has become more critical

- 72% of jurors believe that if a case makes it to the courtroom, it must have some merit
- 42% of jurors would decide a case based not on the law but on what they believe is fair
- 64% of the public in the US has a negative perception of large corporations

1 Source: Council of Insurance Agents & Brokers, Swiss Re Institute
2 Burford Capital survey, Swiss Re Institute
3 Shaub, Ahmuty, Citrin & Spratt, Swiss Re Institute
4 Pew Research Centre, Swiss Re Institute
We have taken targeted actions to improve profitability and manage risk in our Casualty portfolio.

Casualty actions are ongoing to continually manage our book

1. **Top-down steering**
   - Specific strategies for each sub-portfolio defined based on forward-looking view of the business
   - *e.g.* reduced appetite for US Liability and US Commercial Motor

2. **‘Raise the Bar’ initiative**
   - Roadmap with specific profitability targets, achieving technical results improvement in all regions
   - *e.g.* reduced commission ratios overall

3. **Active residual risk management**
   - Continuous trend monitoring with feedback loop into costing tools
   - *e.g.* introduction of Large Corporate Risk (LCR) \(^3\) tracker and costing load for social inflation

4. **Client-specific actions**
   - Pro-active client engagement to address profitability issues or reduce participation if required
   - *e.g.* working with certain clients to rebalance portfolio

5. **Reserve adequacy**
   - Continuous feedback loops between underwriting, claims and reserving teams
   - *e.g.* reserves strengthened to reflect observed adverse trends

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**Economic combined ratio – Casualty Reinsurance\(^1\)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>Ratio</td>
<td>95%</td>
<td>99%</td>
<td>104%</td>
<td>99%</td>
<td>97%</td>
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**US Casualty reserve strengthening\(^2\)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>H1 2019</th>
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<tbody>
<tr>
<td>USD m</td>
<td>-64</td>
<td>-109</td>
<td>-337</td>
<td>-255</td>
<td>-224</td>
</tr>
</tbody>
</table>

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\(^1\) Financial year view (including new and previous years’ business); premiums, claims, commissions and expenses discounted at risk free rates. 2019 = H1 2019 (annualised)

\(^2\) Claims reserves only; includes Asbestos & Environmental (A&E)

\(^3\) Definition of Large Corporate Risk (LCR) for Reinsurance: Forbes Global 2000 and Fortune 1000
Our Casualty Reinsurance portfolio is well diversified, giving us scope to absorb volatility...

Casualty Reinsurance, 2019 EVM premiums

Casualty with broad mix accounting for 52% of P&C Re premiums

- Liability
- Motor
- Accident & Health
- Financial lines

US Casualty
USD 4.0bn

Casualty Reinsurance
USD 9.2bn

- Americas
- EMEA
- Asia

Exposure to US Large Corporate Risk (LCR) is well contained

- US Casualty portfolio covers many market segments and a broad spread of clients
- Within US Liability we have modest LCR exposure which we continue to reduce further
- Most of our Motor and Accident & Health (A&H) exposure is to regional and smaller clients

Selective growth supports further diversification

- Premium growth in 2019 mainly driven by large transactions and EMEA business
- US large transactions in 2019 focused on SME business with short duration, low volatility and good performance track record

Swiss Re’s Casualty portfolio includes a diverse mix of business, both within the US and in other regions

1 2019 = H1 2019 (annualised)
Market concern is around US Casualty reserves, but not all areas subject to the same trends

US A&H has recently experienced positive trends

Adverse trend on US Motor was already identified several years ago and reserves have been strengthened accordingly

USD 2bn relate to US Asbestos & Environmental (A&E) reserves, with no deterioration in reported claims. Survival ratio increased from 11.2 years in 2015 to 13.5 years currently, indicating caution

Of the USD 8bn US Liability reserves, most relate to UY 2014 & onwards where IBNR ratio remains very high (82% on average)

USD 1.5bn is estimated to be exposed to US LCR risks

60% of reserves relate to proportional business
Overall, our Casualty Reinsurance portfolio is prudently reserved and we expect this to remain the case.

We consistently reserve more cautiously than US P&C clients

- Strong governance with continuous feedback loops between underwriting, claims and reserving teams allow timely updates
- For selected client segments, initial US Liability reserves have been booked up to 10%pts higher than costing

Our Casualty reserves remain between the 60th and 80th percentile of the best estimate range

- Adverse trends impacting recent underwriting years have been identified and reserves strengthened accordingly
- Continuous improvement on older underwriting years where reserves have been released on various portfolios

Swiss Re US Liability business vs. US P&C industry initial loss picks

Source: Regulatory filings of US insurance companies (Schedule-P), SNL

1 Swiss Re North America Treaty portfolio on underwriting year basis, US industry on accident year basis, Other Liability Occurrence line
Looking ahead, we see significant market hardening and expect to benefit from actions taken by primary insurers

- Commercial Motor shows strong (albeit slowing) rate increases reflecting recent claims inflation; terms and conditions (T&Cs) tightening
- Personal Motor rates still rising, though less so due to competition
- General Liability and Umbrella price levels have bottomed out and have shown increases since 2018
- In Excess Liability, firm underwriting actions have been taken by major market participants, e.g. restricting limits, raising attachments
- Market is tightening T&Cs around issues such as wildfire and opioids
- Reinsurers benefit directly from these underlying improvements

90% of Swiss Re’s US Casualty business is proportional...

...we therefore benefit from primary market improvements...
...and also continue to reduce our LCR exposures

Source: Council of Insurance Agents & Brokers, Swiss Re Institute

Acceleration of rate increases across US primary Casualty lines
% premium change, new and renewed policies

![Graph showing acceleration of rate increases across US primary Casualty lines](https://via.placeholder.com/150)

- Commercial Motor
- Personal Motor
- General Liability
- Umbrella

1 Source: Council of Insurance Agents & Brokers, Swiss Re Institute
Our robust portfolio management framework fosters the steering of our capital allocation

Nat Cat – Reinsurance
- Large and growing risk pool
- Attractive risk-return profile
- Proven expertise in pricing Nat Cat
- Risk-controlled growth enhanced by ACP

US Casualty – Reinsurance
- Close monitoring of loss trend developments
- In-depth review of LCR exposure
- Proactively and prudently reserved portfolio
- Further rate improvement is needed

Enhanced profitability
Sustainable growth
Exposure management
Corporate calendar and contacts

### Corporate calendar

<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>2020</td>
<td>20 February</td>
<td>Annual Results 2019 Conference call</td>
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<tr>
<td></td>
<td>19 March</td>
<td>Publication of Annual Report 2019</td>
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<td></td>
<td>17 April</td>
<td>156th Annual General Meeting Zurich</td>
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### Investor Relations contacts

<table>
<thead>
<tr>
<th>Hotline</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>+41 43 285 4444</td>
<td><a href="mailto:Investor_Relations@swissre.com">Investor_Relations@swissre.com</a></td>
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<td>Olivia Brindle</td>
<td>Deborah Gillott +41 43 285 2515</td>
</tr>
<tr>
<td>+41 43 285 6437</td>
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- mortality, morbidity and longevity experience;
- the cyclicality of the insurance and reinsurance sectors;
- instability affecting the global financial system;
- deterioration in global economic conditions;
- the effect of market conditions, including the global equity and credit markets, and the level and volatility of equity prices, interest rates, credit spreads, currency values and other market indices, on the Group’s investment assets;
- changes in the Group’s investment result as a result of changes in the Group’s investment policy or the changed composition of the Group’s investment assets, and the impact of the timing of any such changes relative to changes in market conditions;
- the Group’s ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of the Group’s financial strength or otherwise;
- any inability to realise amounts on sales of securities on the Group’s balance sheet equivalent to their values recorded for accounting purposes;
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- policy renewal and lapse rates;
- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes and certain large man-made losses, as significant uncertainties may be involved in estimating losses from such events and preliminary estimates may be subject to change as new information becomes available;
- extraordinary events affecting the Group’s clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- legal actions or regulatory investigations or actions, including those in respect of industry requirements or business conduct rules of general applicability;
- changes in accounting standards;
- significant investments, acquisitions or dispositions, and any delays, unexpected costs, lower-than-expected benefits, or other issues experienced in connection with any such transactions;
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