Trend Spotting and Portfolio Management
A different approach to steering risk

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Key take-aways for discussion

- We believe it is possible to spot trends, and use these to inform our future beliefs about underwriting

- We aim to use these insights to get early signal on changes in profitability, growth or risk – and steer our portfolio accordingly
Trend Spotting: early identification and tracking of trends, and conducting deep dive analysis to quantify their impact

**Spot & Collect Trends**
- Identify external trends
- Consolidate already identified internal trends

**Filter & Prioritize**
- Prioritize trends, bringing in diversity in thought beyond the insurance industry
- Track and revisit trends

**Model & Translate**
- Conduct deep dive into prioritized trends; quantitatively assess impact
- Translate into insights to drive better business decisions

Feed learnings back to internal partners
What is Trend Spotting?

Trend Spotting takes a structured, data-driven approach to understanding trends to enhance our risk assessment.

- Formed in response to delayed reactions & missed opportunities of the past
- Provide **independent quantitative analysis** to provide insights into our business
- **Diversity experience & specialties** beyond actuarial analysis in a hypothesis driven approach
- **Leverage technology and information solutions** and resources needed
US Commercial Auto loss deteriorated unexpectedly, driven by increased severity

Note: Real figures from nominal via indexing to CPI, base year 1990; CY = Calendar Year; exposure normalisation by registered vehicles
Source: AM Best Data from 1967-2014 for national losses, National claims count data from 1989-2014, DoT table VM-1
The reason why turned out to be quite subtle...

The largest segment, Trucking, also had the worst deterioration with some particular ‘hotspots’...

...while trucks got heavier, and the heavier ones got more dangerous...

...perhaps because the driving population got less experienced?

2009-13 Earned premium by sector

<table>
<thead>
<tr>
<th>Class</th>
<th>Severity</th>
<th># claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Heavy Combined Trucks</td>
<td>5.4%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Medium Single Trucks</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
<tr>
<td>All sectors</td>
<td>2.5%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Truck tonnage per million trucks

Fatality rate per 100 million vehicle miles

Trend spotting: Commercial Auto example

Source: ISOnet, BLS, Large truck & bus crash facts, 2013, TST analysis.
Freq, losses, premium shown are sum of 2009-2013 in 2013 dollars, LR, Severity are average over that time; 1st and 3rd party covers.
All figures have exposure accounted for by indexing earned car years to 2013.
We use Trend Spotting to strengthen our ability to take a forward looking view – and therefore shape our portfolio.

- Where are we now?
- Where is the market going? (Forward Looking View)
- What is our attitude to each portfolio?
- Portfolio steering
We articulate our forward looking view in terms of a risk, growth and profitability framework of trade-offs.

**Profitability**
- Priority to increase margin (not profit, which is bottom line)
- Can increase risk or depress growth

**Growth**
- Priority is to grow top & bottom lines
- May involve profitability (margin) deterioration or taking risk

**Risk**
- Priority to reduce volatility against expected (costed) underwriting returns
- May stifle growth or hit margins
We then aim to steer our portfolio by combining past, present and our beliefs about the future.

<table>
<thead>
<tr>
<th>No.</th>
<th>LOB and Region</th>
<th>Portfolio Owner</th>
<th>Portfolio weighting</th>
<th>Actual vs expected performance</th>
<th>Historical positioning</th>
<th>Current positioning</th>
<th>Future attractiveness</th>
<th>Target Liability Portfolio</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Property Re Non proportional Americas</td>
<td>###</td>
<td>OW</td>
<td>[Graph]</td>
<td>Neutral</td>
<td>[Graph]</td>
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<td>Property Re Non proportional EMEA</td>
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<td>Critical Illness Asia</td>
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</tbody>
</table>

**Legend**
- **UW** = underweight
- **OW** = overweight
- **Costing performance**
- **Actual performance**
- **Desirable**
- **Neutral**
- **Less desirable**

**ILLUSTRATIVE**

1. **Historical capital allocation versus market and UW performance**
2. **Strong insights into our positioning vs market, and core economics of each portfolio: economic, US GAAP, risk**
3. **Forward looking view**
4. **Targeted approach for growth, profitability (margin) and risk**
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