Agenda

10:10  Guest Presentation: The Reinsurance Market Today – Risks and Opportunities
       Ulrich Wallin, Chairman of the Executive Board, Hannover Re

10:50  Natural Catastrophe Schemes in Europe
       Carlos Wong-Fupuy, Senior Director

11:20  Lunch

11:40  Global Reinsurance Market Trends
       Ghislain Le Cam, Associate Director, Analytics

12:10  Mock Rating Committee & Vote
       Greg Carter, Managing Director, Analytics
       Konstantin Langowski, Financial Analyst
       plus other Committee Members

13:00  Lunch
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Der Rückversicherungsmarkt heute ...

... Chancen und Risiken

Ulrich Wallin, Vorstandsvorsitzender

A.M. Best Präsentation über den Versicherungsmarkt 2016 - Deutschland
Köln, 26. April 2016
Die Rolle eines Rückversicherers

- Zugriff auf besondere Expertise
- Innovationspartner
- Realisierung von Geschäftsmöglichkeiten
- Reduzierung der Ergebnisvolatilität
- Bilanz- und Kapitalschutz
### Die Top 15 Rückversicherer im Zeitvergleich

#### Prämien-Ranking 2004

<table>
<thead>
<tr>
<th>Rang</th>
<th>Unternehmensgruppe</th>
<th>Gebuchte Bruttoprämiem in Mio. USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Münchener Rück</td>
<td>30.558</td>
</tr>
<tr>
<td>2</td>
<td>Swiss Re</td>
<td>28.047</td>
</tr>
<tr>
<td>3</td>
<td>Berkshire Hathaway¹⁾</td>
<td>13.085</td>
</tr>
<tr>
<td>4</td>
<td>Hannover Rück</td>
<td>13.053</td>
</tr>
<tr>
<td>5</td>
<td>Lloyd’s</td>
<td>11.883</td>
</tr>
<tr>
<td>6</td>
<td>GE Global Ins. Holdings²⁾</td>
<td>9.631</td>
</tr>
<tr>
<td>7</td>
<td>XL Re</td>
<td>4.764</td>
</tr>
<tr>
<td>8</td>
<td>Everest Re</td>
<td>4.704</td>
</tr>
<tr>
<td>9</td>
<td>Transatlantic Re</td>
<td>4.141</td>
</tr>
<tr>
<td>10</td>
<td>Partner Re</td>
<td>3.888</td>
</tr>
<tr>
<td>11</td>
<td>Converium</td>
<td>3.841</td>
</tr>
<tr>
<td>12</td>
<td>RGA Re</td>
<td>3.649</td>
</tr>
<tr>
<td>13</td>
<td>SCOR</td>
<td>3.449</td>
</tr>
<tr>
<td>14</td>
<td>London Re</td>
<td>3.068</td>
</tr>
<tr>
<td>15</td>
<td>Odyssey Re</td>
<td>2.657</td>
</tr>
</tbody>
</table>

Quelle: A.M. Best; weitere Informationen für 2014: „Best’s Review“ (September 2015)

¹⁾ GenRe Group, Berkshire Hathaway Re Group (National Indemnity)
²⁾ ERC, GE Re, GE Frankona Group

#### Prämien-Ranking 2014

<table>
<thead>
<tr>
<th>Unternehmensgruppe</th>
<th>Gebuchte Bruttoprämiem in Mio. USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Munich Re</td>
<td>39.035</td>
</tr>
<tr>
<td>Swiss Re</td>
<td>33.276</td>
</tr>
<tr>
<td>Hannover Rück</td>
<td>17.457</td>
</tr>
<tr>
<td>Berkshire Hathaway Inc.</td>
<td>14.919</td>
</tr>
<tr>
<td>SCOR</td>
<td>13.756</td>
</tr>
<tr>
<td>Lloyd’s</td>
<td>13.199</td>
</tr>
<tr>
<td>RGA</td>
<td>9.118</td>
</tr>
<tr>
<td>China Re</td>
<td>8.373</td>
</tr>
<tr>
<td>PartnerRe</td>
<td>5.932</td>
</tr>
<tr>
<td>Everest Re</td>
<td>5.749</td>
</tr>
<tr>
<td>Korean Re</td>
<td>5.461</td>
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<tr>
<td>Great West Lifeco</td>
<td>3.916</td>
</tr>
<tr>
<td>Transatlantic Holdings</td>
<td>3.600</td>
</tr>
<tr>
<td>General Insurance Corporation of India</td>
<td>2.428</td>
</tr>
<tr>
<td>MAPFRE RE</td>
<td>2.255</td>
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</tbody>
</table>

Quelle: A.M. Best; weitere Informationen für 2014: „Best’s Review“ (September 2015)

¹⁾ GenRe Group, Berkshire Hathaway Re Group (National Indemnity)
²⁾ ERC, GE Re, GE Frankona Group
### Schaden-Rückversicherung weltweit betrachtet

#### Marktgröße und -konzentration 2015

<table>
<thead>
<tr>
<th></th>
<th>in Mrd. EUR</th>
<th>2011</th>
<th>2015</th>
<th>Δ</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10</td>
<td></td>
<td>67</td>
<td>84</td>
<td>+17</td>
<td>+5,7%</td>
</tr>
<tr>
<td>Top 11 - 50</td>
<td></td>
<td>39</td>
<td>41</td>
<td>+2</td>
<td>+1,5%</td>
</tr>
<tr>
<td>Sonstige</td>
<td></td>
<td>64</td>
<td>65</td>
<td>+1</td>
<td>+0,4%</td>
</tr>
<tr>
<td>RV-Markt</td>
<td></td>
<td>170</td>
<td>190</td>
<td>+20</td>
<td>+2,8%</td>
</tr>
</tbody>
</table>

Quelle: Eigene Recherche (weltweite Marktgröße basiert auf Schätzung von gesamt abgegebenen Prämien von Erstversicherern)
Top 10: Munich Re, Swiss Re, Lloyd’s, Hannover Re, Berkshire, SCOR, China Re, PartnerRe, Everest Re, KoreanRe

Weiterer Anstieg des Anteils der Top 10
Personen-Rückversicherung weltweit betrachtet

Marktgröße und -konzentration 2015

<table>
<thead>
<tr>
<th></th>
<th>in Mrd. EUR</th>
<th>2011</th>
<th>2015</th>
<th>Δ</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 5</td>
<td>37</td>
<td>50</td>
<td>+14</td>
<td>+8,3 %</td>
<td></td>
</tr>
<tr>
<td>Top 6 - 10</td>
<td>9</td>
<td>15</td>
<td>+6</td>
<td>+12,7 %</td>
<td></td>
</tr>
<tr>
<td>Top 11 - 50</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0,0 %</td>
<td></td>
</tr>
<tr>
<td>RV-Markt</td>
<td>49</td>
<td>68</td>
<td>+19</td>
<td>+8,8 %</td>
<td></td>
</tr>
</tbody>
</table>

Quelle: Eigene Recherche (weltweite Marktgröße basiert auf Schätzung von gesamt abgegebenen Prämien von Erstversicherern)
Top 10: Munich Re, Swiss Re, RGA, Hannover Re, SCOR, Berkshire (inkl. GenRe), Great West Lifeco, China Re, Korean Re, PartnerRe

Weitere Konzentration in den Top 5/Top 10
Erhebliche Steigerung des Kapitals der Rückversicherer
Hat das Kapital seine Rekordhöhe erreicht?

Rückversicherungskapital* in Mrd. USD

<table>
<thead>
<tr>
<th>Jahr</th>
<th>Rückversicherungskapital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>340</td>
</tr>
<tr>
<td>2009</td>
<td>400</td>
</tr>
<tr>
<td>2010</td>
<td>470</td>
</tr>
<tr>
<td>2011</td>
<td>455</td>
</tr>
<tr>
<td>2012</td>
<td>505</td>
</tr>
<tr>
<td>2013</td>
<td>540</td>
</tr>
<tr>
<td>2014</td>
<td>575</td>
</tr>
<tr>
<td>2015</td>
<td>565</td>
</tr>
</tbody>
</table>

CAGR +7,5 %

* Für weitere Informationen: „The Aon Benfield Aggregate, Results for the Year Ended December 31, 2015“, Aon Benfield
Zusätzlich substantielles Wachstum im ILS-Markt

ILS-Marktvolumen*

<table>
<thead>
<tr>
<th>Jahr</th>
<th>Neuemissionen Katastrophenanleihen</th>
<th>Ausstehende Katastrophenanleihen ohne Neuemissionen</th>
<th>Besicherte Rückversicherung</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>17</td>
<td>3.5</td>
<td>0.7</td>
</tr>
<tr>
<td>2009</td>
<td>18</td>
<td>3.8</td>
<td>0.8</td>
</tr>
<tr>
<td>2010</td>
<td>20</td>
<td>4.4</td>
<td>0.9</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
<td>5.4</td>
<td>1.0</td>
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<td>2012</td>
<td>33</td>
<td>6.5</td>
<td>1.1</td>
</tr>
<tr>
<td>2013</td>
<td>43</td>
<td>7.5</td>
<td>1.2</td>
</tr>
<tr>
<td>2014</td>
<td>53</td>
<td>8.5</td>
<td>1.3</td>
</tr>
<tr>
<td>2015</td>
<td>60</td>
<td>9.5</td>
<td>1.4</td>
</tr>
</tbody>
</table>

CAGR +20 %

Stand März 2016; eigene Berechnung

* Darüber hinaus dürften rd. 5 Mrd. USD an ILWs (Industry Loss Warranties) jährlich hinzukommen
Bedingungen im Rückversicherungsmarkt verbessern sich ...
... wenn die Eigenkapitalrendite ausreichend niedrig ist

**Entwicklung EK-Rendite und Guy Carpenter Global Property Cat RoL Index**

Quelle: Guy Carpenter
EK-Rendite basiert auf Unternehmensdaten (Top 10 des Global Reinsurance Index (GloRe) mit mehr als 50 % Rückversicherungsgeschäft), eigene Berechnung
Mittelfristige Entwicklungen beeinflussen den RV-Sektor

- Regulatorische Anforderungen (z. B. Solvency II, Sanktionen, Steuern…)
- Starke Kapitalisierung/Überkapazität
- Intensiver Wettbewerb (auch durch alternatives Kapital - ILS)
- Neue Gefährdungslagen (Cyber, …)
- Neue Risiken (z. B. Digitalisierung)
- Anhaltend niedriges Zinsniveau, weiter Druck auf Kapitalanlageerträge

+ Regulatorische Anforderungen (zur EK-Ausstattung) steigern Nachfrage nach Rückversicherung
+ Absicherung von Wetterextremen
+ Demographischer Wandel
+ Neue Produkte (z. B. Landwirtschaft, Cyber)
+ Neue Risiken (z. B. Reputationsrisiken)
+ Neue Märkte (asiatische und lateinamerikanische Märkte)
+ Finanzierung und Rückversicherung von Neugründungen (Digitalisierung)

Dauerhafte Wettbewerbsvorteile: Finanzkraft & langfristige Kundenbeziehungen
E+S Rück: Der Rückversicherer für Deutschland in der ...
... Hannover Rück Gruppe

- Hannover Re
  - Talanx AG*: 50,2%
  - Streubesitz: 49,8%

- e+s Rück
  - Inlandsgeschäft: 64,8%
  - Internationales Geschäft: >100 Tochtergesellschaften, Niederlassungen und Repräsentanzen in ~20 Ländern

8 deutsche Erstversicherer: 35,1%
NatKat-Modelle für unsere Kunden in Deutschland
E+S Rück - der Rückversicherer für Deutschland

**es|catIndex**
Individuelle Indices der E+S Rück

**es|bebt**
Das Erdbebentool der E+S Rück

**es|flutet**
Das Fluttool der E+S Rück

**es|hagelt**
Das Hageltool der E+S Rück
Hannover Rück: Einer der profitabelsten Rückversicherer

EK-Rendite


- Peer Gruppe*
- Hannover Rück Gruppe

Eigene Berechnung
* EK-Rendite basiert auf Unternehmensdaten (Top 10 des Global Reinsurance Index (GloRe) mit mehr als 50 % Rückversicherungsgeschäft einschließlich HR)
Der Rückversicherungsmarkt heute ... 
... Chancen und Risiken

Ulrich Wallin, Vorstandsvorsitzender

A.M. Best Präsentation über den Versicherungsmarkt 2016 - Deutschland
Köln, 26. April 2016
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Natural Catastrophe Schemes in Europe

Carlos Wong-Fupuy
Senior Director
Nat Cat up on the agenda

- Pressures - fiscal budgets
- The State - shrinking role
- Increased urbanisation
- Exposure concentration
- Climate change (flood and windstorm risks)
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Deaths</th>
<th>Economic Loss (USD bn)</th>
<th>Insured Loss (USD bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 22-31</td>
<td>Flooding</td>
<td>United Kingdom</td>
<td>N/A</td>
<td>2.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Mar. 29-Apr. 1</td>
<td>Windstorms Mike and Niklas</td>
<td>Western and Central Europe</td>
<td>9</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Oct.3-4</td>
<td>Flooding</td>
<td>France</td>
<td>19</td>
<td>1.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Jul.-Dec.</td>
<td>Drought</td>
<td>South Africa</td>
<td>N/A</td>
<td>2.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Jan. 9-11</td>
<td>Windstorms Elon and Felix</td>
<td>Western and Northern Europe</td>
<td>N/A</td>
<td>0.7</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Aon Benfield, 2015 Annual Global Climate and Catastrophe Report
Need for public / private partnership

Infrastructure
Education

Prevention

Risk pricing
Deductibles
Exclusion

State
Compulsion
Subsidies
Guarantees

Mitigation
Risk transfer

Technical expertise
Risk modelling
Operational support

Recovery

Assistance
Re-construction

Claims payment
Technical assistance

Private Sector

2016 Insurance Market Briefing - Germany
26 April 2016
Challenges that Nat Cat schemes face

- State Guarantee?
- High penetration? Bundling
- Flat Pricing?
- Anti-selection
- Private or Public
- Compulsion?
- Coverage
- Competition
Preparedness in Europe

- **Nat Cat Schemes:** NDCS/CCR (France), CCS (Spain), Flood Re (UK)
- **Spain:** high penetration, tempered by inclusion of motor lines (flood)
- **Germany:** low penetration household insurance (flood)
- **Italy:** low penetration in general, high exposure to earthquake

Source: European Union Commission
France – Natural Disasters
Compensation Scheme / CCR

State Guarantee

Caisse Centrale de Reassurance (CCR)

Reinsurance premiums

Private Insurance sector

Basic premiums

Additional Premiums (*)

Policyholders

Prevention linked to deductibles

Official Declaration Of Natural Disaster

Compulsion linked to existing policies

Reinsurance with State guarantee available

(*) Compulsory, flat rates, bundled to basic policies, set by the government
Spain – Consorcio de Compensacion de Seguros

Private Insurance sector

Basic premiums

Additional Premiums (*)

Policyholders

State Guarantee

Consortio

Compulsion linked to existing policies

No explicit prevention link

Automatic criteria for cover eligibility

Flexibility in scope

(*) Compulsory, flat rates, bundled to basic policies, set by the government
UK – Flood Re

Flood Re

Reinsurance premiums on high risks (1)

Compulsory levy (2)

Private Insurance sector

Basic premiums (3)

Policyholders

Implicit compulsion linked to existing policies

Prevention through transition plans aimed at reducing levy (25 year time horizon)

No explicit State guarantee

Flood only

Domestic households only

(1) At discretion of cedant. Set by government
(2) Based on cedant’s market share. Set by government.
(3) Open market. Additional costs of the scheme not explicit.
# Germany

## Overview

- Main perils flood and windstorms
- Increased awareness due to flood and hailstorm losses in 2013
- Availability vs affordability
- High penetration on basic policies (excl nat cat)
- 99% of nat cat risks insurable, but only 35% penetration on flood for households
- Key difference with other markets: optionality
- Recent experience reliant on post-event assistance from local governments
Italy

Overview

• Main risks: earthquake and flood
• Low penetration rates in household insurance (< 40%)
• Earthquake losses:
  • L’Aquila (2009): €10bn economic losses vs €250m insurance claims
  • Emilia Romagna (2012): €12bn economic losses vs €1bn insurance claims
• Discussions between ANIA and the government:
  • Increasing penetration rates. Compulsion (?)
  • Reduction or elimination of rates on premiums.
  • State guarantee
Conclusions

- Prevalence of flood risks in most countries (earthquake in Italy)
- Increased awareness due to climate change
- No “one size fits all” solution
- Need for public/private partnership initiatives
- High penetration as a requirement, not a consequence

- Nat cat schemes are a complement, not a substitute to the private sector
- Incentives and restrictions to limit adverse selection are key
- Need for a solid technical framework that ensures the long term financial viability of the model
Q&A

Carlos Wong-Fupuy
Senior Director
Global Reinsurance
Market Trends

Ghislain Le Cam
Associate Director, Analytics
Discussion Outline

- Global Economic Conditions
- Global Reinsurance Results and Trends
- The Merger and Acquisition Phase
- Challenges and Impact of Alternative Capital
- 2016 Outlook
Global Economic Conditions
Interest Rate Environment

Source: OECD, Bank of Japan and Federal Reserve
Worldwide Market Share

Total Global Non-Life Premiums approximately USD 2.0 trillion

- North America: 39%
- Western Europe: 31%
- Asia/Oceania: 21%
- Latin America and Caribbean: 5%
- Central & Eastern Europe: 3%
- Africa: 1%

Source: Swiss Re sigma No4/2015
Global Reinsurance Results and Trends
2015 Stock Price Change

Through December 31, 2015

Source: Bloomberg, Yahoo, company websites
Underwriting Profitability

Loss Ratio  Expense Ratio  Fav. Loss Dev.

<table>
<thead>
<tr>
<th>Year</th>
<th>Loss Ratio</th>
<th>Expense Ratio</th>
<th>Fav. Loss Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>63.8%</td>
<td>31.6%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>107.4%</td>
<td>31.3%</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>92.0%</td>
<td>31.3%</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>88.6%</td>
<td>32.2%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>89.5%</td>
<td>33.1%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>90.4%</td>
<td>34.2%</td>
<td></td>
</tr>
<tr>
<td>5yr Avg</td>
<td>95.4%</td>
<td>31.9%</td>
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Operating Returns

<table>
<thead>
<tr>
<th>Year</th>
<th>ROE</th>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>10.6%</td>
</tr>
<tr>
<td>2011</td>
<td>2.5%</td>
</tr>
<tr>
<td>2012</td>
<td>12.1%</td>
</tr>
<tr>
<td>2013</td>
<td>13.1%</td>
</tr>
<tr>
<td>2014</td>
<td>11.4%</td>
</tr>
<tr>
<td>2015</td>
<td>9.5%</td>
</tr>
</tbody>
</table>
## Current Market Conditions

### It’s a “buyer’s market”

<table>
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<tr>
<th>Primary companies retaining more</th>
<th>Increased use of alternative capacity</th>
<th>Terms and conditions broadened</th>
<th>Rate on line under pressure – especially loss-free business</th>
<th>Industry consolidation is creating a ripple effect</th>
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- Increased use of alternative capacity
- Terms and conditions broadened
- Rate on line under pressure – especially loss-free business
- Industry consolidation is creating a ripple effect
Catastrophe Rates

Global Reinsurance – Catastrophe Rate on Line Index

Source: AM Best Research, Guy Carpenter & Co LLC
* Hurricanes Katrina, Rita & Wilma
Reinsurance Capacity Utilization

Capacity Utilization Based on Aggregate Risk-Adjusted Capitalization of Rated Balance Sheets

Source: A.M. Best research and data
2015 Share Repurchases & Dividends Paid

(Source: Company reports)
The M&A Phase
The Base Case for M&A

Most M&A deals in the current reinsurance market are focused on one, if not all, of these four categories:

- Broader product capability
- Broader geographic reach
- Greater influence with brokers and cedants
- Greater attractiveness to third-party capital
The market will continue to become more efficient as all players strive to become closer to the client.
Reinsurers Price-to-Book Value as of Year End 2015

Excluding accumulated other comprehensive income

Current P/BV: 1.10x
Average 1993-Present: 1.16x

Peak reached February 2002 (1.83x BV)
Low Reached March 2009 (0.75x BV)

Note: AOCI is defined as Accumulated Other Comprehensive Income
Source: A.M. Best data and research, Bloomberg, company reports
## Increase in M&A Deals

<table>
<thead>
<tr>
<th>Date Announced</th>
<th>Acquirer</th>
<th>Location</th>
<th>Target</th>
<th>Location</th>
<th>Price (USD million)</th>
<th>Price to Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-Jun-14</td>
<td>Validus</td>
<td>Bermuda</td>
<td>Western World Insurance</td>
<td>USA</td>
<td>690</td>
<td>1.33x</td>
</tr>
<tr>
<td>22-Aug-14</td>
<td>Allied World</td>
<td>Bermuda</td>
<td>Hong Kong operation of RSA</td>
<td>Hong Kong</td>
<td>215</td>
<td>NA</td>
</tr>
<tr>
<td>24-Nov-14</td>
<td>RenRe</td>
<td>Bermuda</td>
<td>Platinum Underwriters</td>
<td>Bermuda</td>
<td>1,900</td>
<td>1.12x¹</td>
</tr>
<tr>
<td>09-Jan-15</td>
<td>XL Group</td>
<td>Ireland</td>
<td>Catlin Group Limited</td>
<td>Bermuda</td>
<td>4,100</td>
<td>1.27x¹</td>
</tr>
<tr>
<td>17-Feb-15</td>
<td>Fairfax</td>
<td>Canada</td>
<td>Brit</td>
<td>London</td>
<td>1,880</td>
<td>1.73x</td>
</tr>
<tr>
<td>31-Mar-15</td>
<td>Endurance</td>
<td>Bermuda</td>
<td>Montpelier Re</td>
<td>Bermuda</td>
<td>1,830</td>
<td>1.21x</td>
</tr>
<tr>
<td>03-May-15</td>
<td>Fosun International Ltd</td>
<td>China</td>
<td>Ironshore</td>
<td>Bermuda</td>
<td>2,304</td>
<td>1.2x</td>
</tr>
<tr>
<td>01-Jul-15</td>
<td>ACE</td>
<td>Switzerland</td>
<td>Chubb</td>
<td>US</td>
<td>28,300</td>
<td>1.83x</td>
</tr>
<tr>
<td>27-Jul-15</td>
<td>CM International Holding PTE Ltd</td>
<td>China</td>
<td>Sirius International Insurance Group, Ltd</td>
<td>Bermuda</td>
<td>2,235</td>
<td>NA</td>
</tr>
<tr>
<td>03-Aug-15</td>
<td>EXOR</td>
<td>Italy</td>
<td>PartnerRe</td>
<td>Bermuda</td>
<td>6,900</td>
<td>1.19x</td>
</tr>
<tr>
<td>08-Sep-15</td>
<td>Mitsui Sumitomo</td>
<td>Japan</td>
<td>Amlin</td>
<td>London</td>
<td>5,334</td>
<td>2.4x</td>
</tr>
</tbody>
</table>

Notes:

¹ Book Value = Assets - intangibles - liabilities

Source: A.M. Best data and research, Bloomberg and company reports
Challenges and Impact of Alternative Capital
Alternative capital is driving a great deal of structural change in the market.

However, do not lose sight of the fact that the market continues to be heavily influenced by the global reinsurance leaders.
Dedicated Reinsurance Capacity

Total Dedicated Reinsurance Capacity (USD billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Capacity</th>
<th>Convergence Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>292</td>
<td>19</td>
</tr>
<tr>
<td>2013</td>
<td>320</td>
<td>48</td>
</tr>
<tr>
<td>2014</td>
<td>340</td>
<td>60</td>
</tr>
<tr>
<td>2015E*</td>
<td>332</td>
<td>68</td>
</tr>
</tbody>
</table>

Note: * Estimate by Guy Carpenter and A.M. Best
Source: A.M. Best, Guy Carpenter
CAT Bond Issuances

CAT Bonds Issued and Outstanding

Source: A.M. Best, Artemis
Risks associated with convergence products

- **Basis Risk** – The risk that a convergence instrument may not fully trigger when the sponsor suffers a loss
- **Tail Risk** – The risk borne by a sponsor if an entity to which it cedes business is insufficiently capitalised
- **Credit, Default and Recovery Risk** – Transactions that involve payment obligations from third parties
- **Investment Performance Risk** – For transactions that rely on investment earnings and return on investments
- **Structuring Risk** – Transactions involving securitizations where cash flows are an essential source of investor repayment
- **Modelling Risk** – Transaction where modelling performed by third-party consulting firms
Reinsurance Rating Outlook
Today’s Reinsurance Market…

- Negative Outlook
- Increased client retentions
- Excess capacity
- Low investment yields
- Declining reserve redundancies
- Convergence capital
- Questionable underwriting discipline
- Benign cat losses
- Declining reserve redundancies
- Questionable underwriting discipline
- Benign cat losses
Q&A

Ghislain Le Cam
Associate Director, Analytics
Mock Rating Committee & Vote

Konstantin Langowski
Financial Analyst

Greg Carter
Managing Director, Analytics
Carlos Wong-Fupuy
Senior Director
Ghislain Le Cam
Associate Director, Analytics
Charlotte Vigier
Senior Financial Analyst
Mock Rating Committee and Vote

Introduction

• A.M. Best rating actions determined by a Rating Committee
• Rating actions include:
  – affirmations
  – upgrades and downgrades
  – initial ratings
  – placement of ratings under review
• Responsible analyst produces rating package and proposes rating action
• Rating Committee deliberates on the proposed action and determines the rating action
Mock Rating Committee and Vote

Voting

- Voting quorum – minimum of six members, including at least two senior members
- Voting order:
  - Responsible analyst and team leader
  - All other members in reverse order of seniority
- Simple majority vote is acceptable for the approval of any rating action
- Chair of the Rating Committee can break a tie or refer the decision to a higher committee
- Voting members must have no conflicts of interest, but must have relevant experience and have passed compliance requirements
Mock Rating Committee and Vote
Rating Process

Operating Performance and Business Profile
Leading Indicators of the Future Balance Sheet

Balance Sheet Strength

Date of last balance sheet  Present  Future

Strong Operating Performance Builds Balance Sheet Strength

Business Profile Drives Strong and Sustainable Operating Performance

Weak Operating Performance Erodes Balance Sheet Strength

Time

BCAR Guideline
Introduction
BMF Insurance Company

• New rating for a subsidiary of an already rated group
• Recommendation: stand-alone assessment of ‘a’, stable outlook

Note: ERM = Enterprise Risk Management
Business Profile - BMF Insurance Company

Overview

- Domiciled in a small European country
- Country Risk Tier 1 – stable operating environment
- BMF Insurance Company (BMF) established 70 years ago and is owned 100% by Windermere Insurance Group (UK) plc
- Good competitive position:
  - third-largest insurer in its country of domicile
  - in-depth knowledge and experience of the local market
Business Profile - BMF Insurance Company

- Well diversified insurance portfolio by line of business
Business Profile - BMF Insurance Company

Gross Written Premium (GWP) development

- GWP increased by 11% during 2015, driven by increase in motor and property business
- High competition in local market
- Planned growth driven by higher volume and moderate rate increases
Business Profile - BMF Insurance Company

Business plans

- Geographically concentrated, only writing local business
- Plans to open a branch in a neighbouring country in 2017 to diversify geographically
- Growth of 10 - 15% expected over each of the next three years, includes growth via new branch
- **New branch represents execution risk**
Business profile supports the recommendation:

- Good market position, competitive advantage
- Strong brand recognition
- Diverse product offering
- Offset by geographical concentration
- Diversification via branch comes with execution risk
Strong risk-adjusted capitalisation, as measured by the BCAR model

Risk-adjusted capitalisation is supported through:
- Good internal capital generation
- Conservative investment profile
- Good credit quality of reinsurers
- Comfortably meets local solvency requirements

<table>
<thead>
<tr>
<th>BCAR</th>
<th>2014</th>
<th>2015</th>
<th>2016e</th>
<th>2017e</th>
<th>2018e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>180%</td>
<td>204%</td>
<td>185%</td>
<td>183%</td>
<td>185%</td>
</tr>
<tr>
<td>CAT Stress</td>
<td>172%</td>
<td>197%</td>
<td>178%</td>
<td>178%</td>
<td>180%</td>
</tr>
<tr>
<td>Market average</td>
<td>160%</td>
<td>167%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Historically: significant exposure to Peripheral European Sovereign Debt

• De-risked portfolio in 2015, leading to improvement in risk-adjusted capitalisation
• Reserves are reviewed by an internal actuary quarterly and by an external actuary annually

• Small margin in held reserves over external actuaries best estimate

• Loss triangles for the past 10 years indicate stability

• Modest reserve releases in each of the past three years
Reinsurance includes both proportional and non-proportional arrangements

92% of reinsurers are rated “A-” or above

Limited cat risk in local market, earthquake risk is borne by state reinsurer
Balance Sheet Strength - BMF Insurance Company

Summary

- Balance sheet strength is supportive of the recommended rating
- Solid risk-adjusted capitalisation
- Good internal capital generation to support planned growth
- Investment risk has reduced
- Stable reserve development
- Limited CAT risk
- Comprehensive reinsurance with high quality panel
Operating Performance - BMF Insurance Company

Overall performance

- Good return on equity, averaging 12% over the last five years
Operating Performance - BMF Insurance Company

Underwriting

- Diverse product range has supported stable underwriting performance
- Combined ratios average 93% over the past five years
Operating Performance - BMF Insurance Company

- Combined ratio better than market in last three years
- Expected to increase in 2017 due to higher expenses of new branch

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<thead>
<tr>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BMF Combined ratio</td>
<td>91%</td>
<td>105%</td>
<td>93%</td>
<td>94%</td>
<td>92%</td>
<td>93%</td>
<td>96%</td>
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<td>92%</td>
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<td>95%</td>
<td>95%</td>
<td>94%</td>
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A.M. Best Präsentation über den Versicherungsmarkt

26 April 2016
• Investment yield reduced due to sale of high-risk assets
• Reinvestment rate reducing year on year – currently 2.5%
• Operating performance is supportive of the recommended rating
  – Stable underwriting performance
  – Modest investment income reflective of low-risk strategy
  – Generally outperforms peers
Principal areas of focus – Risk Categories

- Product & Underwriting Risk
- Reserving Risk
- Concentration Risk
- Reinsurance Risk
- Financial Flexibility Risk
- Investment Risk
- Legislative/Regulatory/Judicial/Economic Risk
- Management Risk
- Operational Risk
- Risk Appetite/Stress Testing
Enterprise Risk Management
BMF Insurance Company

- Product & Underwriting Risk
- Reserving Risk
- Concentration Risk
- Reinsurance Risk
- Financial Flexibility Risk

- Investment Risk
- Legislative/Regulatory/Judicial/Economic Risk
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**Recommendation:**
a **standalone assessment** of ‘a’, stable outlook

<table>
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<th>Offsetting factors</th>
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<tr>
<td>Good business profile in local market</td>
<td>Geographically concentrated</td>
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<tr>
<td>Well diversified by line of business</td>
<td>Execution risk associated with planned expansion</td>
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<tr>
<td>Solid risk-adjusted capitalisation</td>
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<td>Stable underwriting performance</td>
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Balance Sheet Strength - BMF Insurance Company

Capitalisation

- Strong risk-adjusted capitalisation, as measured by the BCAR model

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- Risk-adjusted capitalisation is supported through:
  - Good internal capital generation
  - Conservative investment profile
  - Good credit quality of reinsurers

- Comfortably meets local solvency requirements
### Implicit support
- Level of integration
- Brand name
- Contribution to earnings
- Contribution to growth

### Explicit support
- Financial guarantee
- Reinsurance support
Rating Enhancement
Ownership - BMF Insurance Company

• BMF is owned 100% by Windermere Insurance Limited (UK) Plc (Windermere)

• Windermere acquired BMF in 2004

• Windermere has operations in the UK and Continental Europe

• Windermere is rated as ‘aa-’ with a stable outlook by A.M. Best
Rating Enhancement
Structure - BMF Insurance Company

Windermere Insurance Group (UK) Plc

Windermere Insurance Limited (UK)

BMF Insurance Company (Europe)

Windermere Insurance (Poland)

Rated ‘aa-’ stable

Recommended ‘a+’ stable

Rated ‘aa-’ stable
Recommendation of one-notch of rating enhancement

**Published** rating of ‘a+’ with a stable outlook

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<th><strong>Support factors</strong></th>
<th><strong>Offsetting factors</strong></th>
</tr>
</thead>
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<tr>
<td>Shared IT and HR systems</td>
<td>Does not carry the Windermere brand name</td>
</tr>
<tr>
<td>Shared pricing tools</td>
<td>No financial guarantee or net worth maintenance agreement from Group</td>
</tr>
<tr>
<td>Good level of oversight and monitoring controls from Windermere</td>
<td>No reinsurance support from Group</td>
</tr>
<tr>
<td>Group earnings: contributes 15% and will be the driver of Group’s growth in Europe</td>
<td></td>
</tr>
</tbody>
</table>
Rating Enhancement
Structure - BMF Insurance Company

Windermere Insurance Group (UK) Plc

Windermere Insurance Limited (UK)

BMF Insurance Company (Europe)

Windermere Insurance (Poland)

Rated ‘aa-’ stable

Recommended ‘a+’ stable

Rated ‘aa-’ stable
Q&A

Konstantin Langowski
Financial Analyst
Hyatt Regency Köln

2016 Insurance Market Briefing - Germany

26 April 2016