Celtic Manor

Current Developments and Pricing in the Reinsurance Market
  - An Overview and Outlook for 2011

Wednesday, October 13, 2010
Agenda

- Key Issues for 2010
- Dynamics of the Reinsurance Market
  - The Global Economy
  - Insurance Markets
  - Management Strategy and Discipline
  - Regulation
  - Alternative Sources of Risk Transfer: Capital Markets
  - Losses
  - Supply and Demand, Capital Adequacy
- Reinsurance Market Prospects for 2011
- Catalysts for Change
Key Issues for 2010

ROE  interest rates  investment returns  CAPITAL  Cat Losses  chile
new zealand  Deepwater Horizon  Xynthia  Cycle Management  Emerging
Markets  China  Environmental Liability  Solvency II  Bermuda  zurich
Soft Markets  Recession  Financial Crisis  Consolidation Acquisition
Sharp Repurchases  Dividend Strategy  Global Economy
Reserve Releases  Price  inflation  Regulation  Risk  Talent
Combined Ratios
The Global Economy

- 2009 Financial Crisis Recovery is transitioning to a more mature phase
- But sovereign debt poses a new challenge for the world economy
- Conditions in the financial market remains tight, possibly exposed to debt in EU countries
- GDP growth prospects remain uncertain 2010 - 2011
  - Euro zone 0.7% → 1.3%
  - Japan 2.5% → 2.1%
  - USA 2.3% → 2.9%
  - Nearly half increase in global demand for each year of 2010 to 2012 is in developing countries
- 2009 GDP growth in East Asia / Pacific Region, grew 7.1% (8.5% in ‘08)
- But excluding China, growth slowed from 4.7% in 2008 to 1.5% in 2009
The World is Changing

- So Market is fragile and major crisis could ensue through default or major restructuring of high income sovereign Euro debt.

- G7 = US, Japan, Germany, UK, France, Italy and Canada.
- E7 = China, India, Brazil, Russia, Mexico, Indonesia and Turkey (the seven largest emerging economies).
- Three of the E7 in APAC including 2 of the biggest

Insurance Markets

- Insurance Markets have faced increased demands for price reductions and reduced income from diminished trade flows

Aviation:
- 82% of European airports reported ‘09 passenger traffic below ‘06 levels with a loss of 105m passengers
- 23% reduction and freight tonne kilometres, ’08 – ’09, parked aircraft increased 13.4% ‘07 to ’08
- But expected passenger growth 5% to 6% in 2001 and freight up 14%

Marine:
- World trade values 2008 $16,000bn (+16% over ‘07), 2009 $12,200bn (-23%)
- Clarksea $/day freight rate annual average index 2008 $32,120, 2009 $11,330

Non Life Global Premiums, showing a reduction ‘08 over ‘07 (P&C Reinsurance GPW has been approximately $140bn for last seven years but 1990 to 2003 grew from $61bn to $145bn
Non-Life Written Premiums ($ billions)

- Most Global Property lines continue to suffer average 10% reductions, US Casualty showing single digit reductions
- Industry rate rises limited to loss driven segments: i.e. Off-shore Energy, Motor and Chile
Management Strategy and Discipline

- Management of excess capital is a challenge
  - Grow into new lines of business, geographies or acquire teams
  - Consolidation through merger or acquisition
  - Capital Management through share repurchases or dividend management
  - More aggressive investment strategies (needs more capital)

Return on Equity – Hardening

- Adequate returns are increasingly challenged in today’s Market
- Combined ratios are under pressure and need to be lower in depressed investment environment to generate appropriate RoE’s
- RoE generated by 100% combined ratio in 2009 is less than half the similar calculation in 1979
Management Strategy and Discipline

Share Repurchases – Neutral

- Aon Benfield aggregate sub-set of Reinsurers comprises $235bn capital at 06/10
- Reinsurers have returned 1.2% of share holders funds in Q1 and 1.3% in Q2
- Many companies have accelerated their programmes in the first quarter
- Level of share re-purchases peaked at 11% of shareholders funds for Arch, Ren Re, Validus and 10% for Platinum and Montpelier
- Trend will continue absent a Market changing event

Cycle Management – Softening

- Technical approach has reduced the level of peaks and troughs but the cycle is alive and kicking
- (Re)Insurance profitability is and will remain cyclable and volatile: Hugo Andrew Northridge WTC Katrina, Rita Wilma
Management Strategy and Discipline

Mergers and Acquisitions – *Neutral*

- M&A activity is accelerating: Partner Re / Paris Re, Validus / IPC, Max Re / Harbor Point, Aviva, Brit, Lloyd’s Syndicates?
- Current book values can be a constraint to acquisition strategies
- The publically traded stocks of every US / Bermuda P&C (Re)Insurance Company (excluding Berkshire Hathaway and AIG) have been beneath book value since 10/08
- Current average is 91%. In the previous 25 years companies have traded below book only once. (03/00 Internet bubble)
- Consolidation will not maturely affect the Market at this point
Management Strategy and Discipline

Regulation – Hardening

- Regulation tends to demand more capital
- Solvency II (QUIS 5) scheduled to be completed end 2010
- Possible outcomes (but reality uncertain)
  - More Reinsurance cover required
  - More capital to support the existing book
  - Reduced risk appetite
- Probable that impact will mostly be limited to smaller / medium size carriers
- Probable that regulatory standards for capital are unlikely to require significantly more capital for non-life business
Management Strategy and Discipline

**Growth – Neutral / Softening**

- Most CEO’s do not believe profitable organic growth is possible, given deteriorating Market conditions
- Discipline demands reduced business plans and de-emptions or steady state in Lloyd’s
- Taken in the aggregate, this discipline will only slow softening trends
- But all managements need growth to increase share holder value
- All targeting Specialty lines, non peak zones or superior access to broker distribution chain
Management Strategy and Discipline

**Capital Markets – Neutral**

- Traditional Markets are still more flexible on price coverage and basis risk but the gap is narrowing
- Capital Markets are now a significant contributor to overall capacity requirements but still a limited influence on Market rating trends
- Primary Market activity has accelerated with ten cat bonds issued in YTD 2010, raising $2.35 billion
  - Issuance in Q2 was the second largest in the history of the cat bond market
- Investor demand remains robust
  - Continuation of new capital inflows together with c$5 billion of maturing bonds, motivating investors to purchase new issues
  - We anticipate $5-6 billion of total new issuance over the calendar year
- Market conditions more favourable for sponsors
  - Significant fall in pricing across all perils
  - Strong demand for diversifying non-US perils
Catastrophe Bond Issuance by Quarter

<table>
<thead>
<tr>
<th>Quarter</th>
<th>'06 Q1</th>
<th>'06 Q2</th>
<th>'06 Q3</th>
<th>'06 Q4</th>
<th>'07 Q1</th>
<th>'07 Q2</th>
<th>'07 Q3</th>
<th>'07 Q4</th>
<th>'08 Q1</th>
<th>'08 Q2</th>
<th>'08 Q3</th>
<th>'08 Q4</th>
<th>'09 Q1</th>
<th>'09 Q2</th>
<th>'09 Q3</th>
<th>'09 Q4</th>
<th>'10 Q1</th>
<th>'10 Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>430</td>
<td>1,717</td>
<td>935</td>
<td>1,612</td>
<td>500</td>
<td>3,955</td>
<td>1,356</td>
<td>2,048</td>
<td>616</td>
<td>1,794</td>
<td>320</td>
<td>0</td>
<td>575</td>
<td>810</td>
<td>411</td>
<td>1,600</td>
<td>300</td>
<td>2,050</td>
</tr>
</tbody>
</table>
Cat Bond Issuance - By Year and Trigger

**CATASTROPHE BOND ISSUANCE BY YEAR**
(Ending 30 June 10)

<table>
<thead>
<tr>
<th>Year</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>445</td>
</tr>
<tr>
<td>1998</td>
<td>814</td>
</tr>
<tr>
<td>1999</td>
<td>632</td>
</tr>
<tr>
<td>2000</td>
<td>943</td>
</tr>
<tr>
<td>2001</td>
<td>1,144</td>
</tr>
<tr>
<td>2002</td>
<td>988</td>
</tr>
<tr>
<td>2003</td>
<td>1,011</td>
</tr>
<tr>
<td>2004</td>
<td>1,558</td>
</tr>
<tr>
<td>2005</td>
<td>3,124</td>
</tr>
<tr>
<td>2006</td>
<td>7,003</td>
</tr>
<tr>
<td>2007</td>
<td>5,814</td>
</tr>
<tr>
<td>2008</td>
<td>4,361</td>
</tr>
</tbody>
</table>

**Investor Profile**

<table>
<thead>
<tr>
<th>Investor Type</th>
<th>1999</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Insurer</td>
<td>30%</td>
<td>3%</td>
</tr>
<tr>
<td>Reinsurer</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>Bank</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Dedicated Cat Fund</td>
<td>5%</td>
<td>46%</td>
</tr>
<tr>
<td>Hedge Fund</td>
<td>5%</td>
<td>14%</td>
</tr>
<tr>
<td>Money Manager</td>
<td>30%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**CAT BOND vs. EQUITY PERFORMANCE**

- SRe Cat Bond Total Return
- S&P 500 Insurance Total Return
- S&P 500 Total Return
Management Strategy and Discipline

Catastrophe Loss Activity – *Hardening*

- Significant amounts of Excess of Loss Cat. has been purchased in 2009 / 2010

<table>
<thead>
<tr>
<th>Regions</th>
<th>CAT Purchased in $B</th>
<th>Market Premium in $B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009</td>
<td>2010</td>
</tr>
<tr>
<td>US</td>
<td>83.0</td>
<td>83.0</td>
</tr>
<tr>
<td>APAC</td>
<td>56.7</td>
<td>57.8</td>
</tr>
<tr>
<td>EMEA</td>
<td>61.1</td>
<td>58.1</td>
</tr>
<tr>
<td>UK</td>
<td>13.9</td>
<td>14.1</td>
</tr>
<tr>
<td>Total for traditional reinsurance</td>
<td>214.7</td>
<td>213.0</td>
</tr>
<tr>
<td>CAT Bonds outstanding as of June</td>
<td>11.4</td>
<td>12.1</td>
</tr>
<tr>
<td>Total Capital Available for Reinsurance</td>
<td>226.1</td>
<td>225.1</td>
</tr>
</tbody>
</table>
Management Strategy and Discipline

Catastrophe Loss Activity – Hardening

- Economic losses generated by 2010 natural catastrophes, total $172bn
- But low penetration of insurance outside of the US has resulted in insured losses of less than $27bn
  - Approximately 50% of losses in the US are insured, average in the rest of the world is 5% - 10%
- Non US economic losses total $154bn but only $18bn covered by insurance
- 2010 losses to date have affected earnings not capital
- 2010 losses will not drive a change in the Market, other than in localised areas
Management Strategy and Discipline

Supply and Demand – Softening

- Reinsurance capacity is at an all time high and has increased 10% or $40bn since end 2009

Changes in Reinsurer Capital - $bn

- Capacity is growing more quickly than demand
- Estimates of surplus capital vary, Aon Benfield’s view is at the high end, with a total of approximately $80bn to $90bn
Management Strategy and Discipline

- Balance sheets have recovered and grown back to pre-financial crisis levels
- The graph below shows the relative changes in the ABA Shareholders’ Funds from 31 Dec 2007 to 31 Dec 2009

- The ABA peer base is a mix of Bermudan, USA and European Companies (does not include Lloyds Syndicates or Japanese P&C entities due to reporting method & dates)

Source: Company Data, Aon Benfield Research
Development of ABA Shareholders’ Funds

Source: Company Data, Aon Benfield Research
Conclusion

- Discipline in the Reinsurance Market is greater than the Insurance Markets

- Collective management discipline alone will not and cannot change the Market
Reinsurance Market Outlook: A Summary

- Capacity is at record levels, the Industry has recovered 100% of capital loss in the financial crisis
- 2010 Cat. losses are not sufficient to trigger a hard Market
- Inflation levels in the short to medium term look weak
- Reinsurance capital stability is in direct contrast to the banks
- Profitability and returns on capital, although weakening, are not yet at a level to force change
- Reinsurance demand is unlikely to grow at a rate higher than low single digits
## Reinsurance Sector Outlook

<table>
<thead>
<tr>
<th>Aviation</th>
<th>High incidence of both operational and non operational losses. Expect rest of 2010 to be flat to firm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10 market players write 55% of major risks and post Air France event are estimated to have suffered 38% loss.</td>
<td></td>
</tr>
<tr>
<td>Credit &amp; Financial Risks</td>
<td>Significant improvement in results, specially in Trade and Credit. Speed and extent surprised both insurers and reinsurers.</td>
</tr>
<tr>
<td>Additional capacity yet to result in improved pricing for insurers.</td>
<td></td>
</tr>
<tr>
<td>Marine &amp; Energy</td>
<td>Deepwater impact on Energy sector profound.</td>
</tr>
<tr>
<td>GOM Wind rates flat. No significant impact on marine reinsurance market.</td>
<td></td>
</tr>
<tr>
<td>Non-Marine Retro</td>
<td>Retro capacity purchased up by 15% year on year. Chile has fuelled interest in purchasing at a lower level compared to world wide layers of non peak cover.</td>
</tr>
<tr>
<td>Wholesale price recovery in the ILW sector.</td>
<td></td>
</tr>
<tr>
<td>Specialty Casualty</td>
<td>From reinsurer perspective general and employers’ liability are still profitable.</td>
</tr>
<tr>
<td>GL marketing a challenge in exotic classes, particularly where there are perceived US exposures.</td>
<td></td>
</tr>
<tr>
<td>Motor</td>
<td>In challenge.</td>
</tr>
</tbody>
</table>
U.S. Property Catastrophe 2011 Expectations

- Renewals in peak zones such as the U.S. and Europe throughout the remainder of the year will be unaffected by the reinsurance losses incurred during Q1 2010.
- Based on light loss activity for the remainder of the year

<table>
<thead>
<tr>
<th></th>
<th>RoL Changes</th>
<th>Capacity Changes</th>
<th>Retention Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal lines national</td>
<td>-10% to flat</td>
<td>+5% to 10%</td>
<td>Stable to +10%</td>
</tr>
<tr>
<td>Personal lines regional</td>
<td>-10% to flat</td>
<td>+10% to 15%</td>
<td>Stable to +10%</td>
</tr>
<tr>
<td>Standard Commercial lines</td>
<td>-10% to flat</td>
<td>+5% to +10%</td>
<td>Stable to +10%</td>
</tr>
<tr>
<td>Complex Commercial lines</td>
<td>-10% to flat</td>
<td>+5% to 10%</td>
<td>Stable to +10%</td>
</tr>
</tbody>
</table>

- UK, EMEA and APAC expectations -5% to -10%, unless driven by local loss activity, i.e. Western Europe, Chile and New Zealand
Inflection Point: How close to a hard(er) Market?

- Reinsurance sector returns have fallen to 10% - 12%

- Level is getting critical: small further price reductions will maturely affect overall profitability, fuel further share re-purchases, drive more consolidation

- Premium levels are at historic lows relative to GDP
Inflection Point: How close to a hard(er) Market?

- But calendar year results are better than previous Market returns
Inflection Point: How close to a hard(er) Market?

- Inflation Cats. and pricing have driven hard Market since 1984

![Combined Ratio and Inflation Chart]

- Combined Ratio and Inflation chart showing trends from 1970 to 2005.
Inflection Point: How close to a hard(er) Market?

- A $50bn pre tax loss will change the Market by driving combined loss ratios to unacceptable levels.

![Industry Calendar Year Combined Ratio: $50B Extraordinary Cat Losses]

- $50B loss drives combined ratio above 115% in 2009.
  - CR only 101% in 2009.
Inflection Point: How close to a hard(er) Market?

- But not all Cat. losses are of sufficient size to turn the Market

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Occurrence Estimate</th>
<th>Industry Event</th>
<th>Reinsurance Recovery</th>
<th>FHCF Recovery</th>
<th>Net Industry Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricane</td>
<td>50 year return period</td>
<td>$82B</td>
<td>$17B</td>
<td>$17B</td>
<td>$48B</td>
</tr>
<tr>
<td>Earthquake</td>
<td>250 year return period</td>
<td>$72B</td>
<td>$21B</td>
<td></td>
<td>$51B</td>
</tr>
<tr>
<td>EU Windstorm + UK SS</td>
<td>250 year return period</td>
<td>$37B</td>
<td>$24B</td>
<td></td>
<td>$13B</td>
</tr>
<tr>
<td>Japan Earthquake</td>
<td>205 year return period</td>
<td>$80B</td>
<td>$50B</td>
<td>$20B</td>
<td>$10B</td>
</tr>
</tbody>
</table>
A Future Hard Market?

- Profitability of the Industry is being challenged, 2010 will be a poor year
- The perfect storm to change the Market would include
  - A $50bn net loss event or combination of
  - Continuing and worsening higher accident year loss ratios
  - Reduced / eliminated favourable impact of loss reserve releases
  - Continuing low interest rates
  - A further significant financial crisis
- CEO quote “there is not enough blood on the streets for people to change. A Market changes on fear and there is no fear yet out in the Marketplace.”
- But maybe a little apprehension!!
Conclusion

- Clients will continue, absent a combination of the above, to benefit from a softening Market through the 2011 renewal season

- There is no catalyst for a hard Market at this point in time