If you can’t beat them, join them
Change in reinsurance markets with the rise of alternative capital

Christian Bird, Validus
They took our jobs
They took our jobs
A firm foothold and rapid growth

Alternative capital share of reinsurance market

Source: Aon Benfield Aggregate

2006: $17B
2007: $22B
2008: $19B
2009: $22B
2010: $24B
2011: $28B
2012: $44B
2013: $50B
2014: $64B
2015: $72B
Catastrophe Bonds

Investors
- Investment
- Interest
- Principal

Special Purpose Vehicle
- Premium
- Reimbursement

Insurer

Swap Counterparty
- Investment
- Returns
The rise of collateralised reinsurance

Source: Aon Benfield Aggregate
What is collateralised reinsurance?

... it is just reinsurance, but it is fully collateralised
The players

- Nephila
- Fermat Capital Management, LLC
- Securis Investment Partners
- Markel CATCo
- Credit Suisse
- Stone Ridge
- Leadenhall Capital Partners
- LGT Capital Partners
- Twelve Capital
- AlphaCat Validus Group

Top 10 by AUM as at August 2016
source: Artemis.bm
The appeal to investors

![Graph showing the relationship between expected return and standard deviation for different investment portfolios.](Image)

Source: Validus Research
Should it work?

Traditional (re)insurance should benefit from capital leverage...

Example, household insurance – semi-detached 3 bedrooms, outer London, £200k rebuild cost

<table>
<thead>
<tr>
<th></th>
<th>Traditional insurance</th>
<th>Collateralised insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Required</td>
<td>£100</td>
<td>£200k</td>
</tr>
<tr>
<td>Cost of Capital</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Price</td>
<td>£150</td>
<td>&gt;£8k</td>
</tr>
</tbody>
</table>
Should it work?

... but the leverage may not be enough

Example, $100m xs $100m catastrophe reinsurance contract, expected loss = $5m

<table>
<thead>
<tr>
<th></th>
<th>Traditional reinsurance</th>
<th>Collateralised reinsurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Required</td>
<td>$50m</td>
<td>$100m</td>
</tr>
<tr>
<td>Cost of Capital</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>Price</td>
<td>$13m</td>
<td>$11m</td>
</tr>
</tbody>
</table>

* Assuming 20% expense loading
Threats to other markets

THEY TOOK ‘ER JOBS!
Other developments

- Hedge fund reinsurers
- Total return reinsurers
- Lloyd’s SPS / SPA
- London ILS framework
- UK foreign aid cat bond
- Long tail business for “float”
- Securitizing reserve runoff
Opportunities for actuaries

“In the middle of every difficulty lies opportunity”

- Albert Einstein
Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.