What are Insurance Linked Securities (ILS), and Why Should they be Considered?

Presentation to the CANE Fall Meeting, September 2012
Swiss Re Capital Markets
What are Insurance Linked Securities?

- Natural catastrophe bonds (cat bonds for short) and other types of ILS are usually issued in order to provide re-/insurance protection to insurers, reinsurers, governments, and corporations

- Cat bonds allow companies to obtain reinsurance protection from a new pool of capital separate from traditional reinsurers
  - Money managers, hedge funds, and pension funds represent a new pool of capital for insurers and reinsurers to gain protection from

- Investor capital provides collateralized cover
  - Investor capital sits in a segregated collateral account, meaning that if an event occurs, dedicated funds are available to make a payment
  - This virtually eliminates the credit risk inherent in traditional re-/insurance
How do Cat Bonds Work?

1. The sponsor (the insurer or reinsurer looking to get protection) enters into a risk transfer contract (reinsurance or derivative) with a special purpose company established specifically for the transaction (SPV).

2. The SPV capitalizes itself by issuing Notes (the "Cat Bonds") to Investors in the capital markets in an amount equal to the limit of the risk transfer contract.

3. Proceeds from the securities offering are transferred into a collateral trust account and invested to provide a stable return.

4. If no covered event occurs during the risk period the bonds will be redeemed at 100% of face value. In case of a covered event meeting the thresholds set forth in the risk transfer contract, funds will be withdrawn from the collateral account to make an event payment to the sponsor. The redemption price of the bonds is reduced accordingly.
How ILS emerged

- In 1992, Hurricane Andrew made landfall in Florida causing $15.5b in insured losses
- The resulting shortage of reinsurance capacity prompted reinsurers, banks, and academics to investigate new ways of transferring catastrophe risk outside the traditional reinsurance capital pool
- In 1997, Residential Re, the first catastrophe bond was sold to capital markets investors, protecting USAA against the risk of a major hurricane
- Since then, approximately $45 billion of cat bonds have been issued, providing protection to over 70 insurers, reinsurers, governments, and corporations for a multitude of risks
## ILS Universe

### Non-Life
- Catastrophe Bonds
- Catastrophe Derivatives/Industry Loss Warranties
- Collateralized reinsurance/retro
- Quota Shares/Sidecars

Currently $15.5 billion in cat bonds are outstanding, with an estimated $10-15 billion in other private non-life risk transfer to capital markets investors.

### Life
- Extreme Mortality Bonds
- Longevity swaps/bonds
- Embedded Value Securitizations
- Life Settlement Securitizations
- Reserve Financing (e.g. Reg XXX)

Swiss Re has issued approximately $2.2 billion in Vita extreme mortality bonds since 2003. Post financial crisis, the embedded value and life settlement markets have slowed considerably.
Historical and YTD Cat Bond Issuance

Entry of new sponsors and investors continue to expand the market

2012 has seen 4.26bn YTD, including the largest first half since 2007

Swiss Re Capital Markets expects 5.0-7.0 billion of issuance in 2012

As of Aug 31, 2012
Source: Swiss Re Capital Markets
Current year reflects year-to-date totals
US Wind represents the largest peril in the ILS space, consistent with its position as the most capital intensive peril in the global re-/insurance markets.

Diversifying perils achieve tighter spreads and appeal to investors whose investment guidelines require them to be diversified within their ILS portfolio.

Source: Swiss Re Capital Markets.
As of Aug 31, 2012 with percentages calculated based on notional amount. Percentages will not add due to multiple perils included in most bonds.
Catastrophe Bond Triggers Outstanding

Sponsors have increasingly looked at indemnity triggers in the past year, as they look to minimize their basis risk

- Industry index is still the largest trigger outstanding
- Index-based transactions will typically price tighter than indemnity transactions
- However, an indemnity trigger will offer a sponsor the lowest basis risk in a cat bond

Source: Swiss Re Capital Markets.
As of Aug 31, 2012 with percentages calculated based on notional amount
Why Consider Cat Bonds?  
The Sponsor's Perspective

- Concern about counterparty credit in case of a large event
- Shortage/pricing of available traditional capacity
  - e.g. companies with large reinsurance programs, peak perils
- Diversifying sources of capacity
  - Reducing dependency on one just one market
- Structural features that the traditional markets have difficulty providing in size at the right price
  - Aggregate, second event, Drop down, etc
- Multi-year pricing stability (3 – 5 year term is typical for cat bonds)
Why Consider Cat Bonds?  
The Investor's Perspective

- Different types of investors participate in catastrophe bonds for a number of reasons, such as:
  - Uncorrelated to traditional asset classes (equities, bonds, etc.)
  - High risk adjusted returns
  - Low volatility when compared to other asset classes
  - Strong collateral structures, including treasury money market funds and AAA rated customized notes issued by supranationals such as e.g. the World Bank

- Cat bonds represent an asset whose value is largely driven by the occurrence of events that are not correlated to the financial markets, allowing for a high degree of diversification

- Transaction size varies from a minimum of around $100mn with the largest transactions reaching $750mn to $1bn
  - Individual investors' bite sizes vary depending on the size of an investor's portfolio as well as the nature of the transaction and can range from a few million up to several hundred million.
Cat Bond Investor Segmentation

Investors by Type
- Dedicated: 47%
- Money Manager: 22%
- Bank: 8%
- Hedge Fund: 14%
- Insurer: 3%
- Reinsurer: 6%

Investors by Region
- US: 59%
- Europe: 25%
- Bermuda: 11%
- Canada: 1%
- Japan: 3%
- Australia: 1%
- Europe: 25%

As of Aug 31, 2012
Source: Swiss Re Capital Markets
**Market Overview**

Swiss Re Global Cat Bond Index Total Return
Barclays BB US High Yield
S&P 500 Total Return

*Compound Annual Growth Rate since 1/1/2002*

"Swiss Re Global Cat Bond Index Total Return", calculated by Swiss Re Capital Markets, is a market value-weighted basket of natural catastrophe bonds tracked by Swiss Re Capital Markets, calculated on a weekly basis; past performance is no guarantee of future results.

Underlying data for Barclays Capital High Yield Index provided by Barclays Capital.

Underlying data for "Swiss Re Global Cat Bond Index Total Return" is based on indicative prices only.
Long Point Re III Case Study
In May 2012, Travelers successfully sponsored Long Point Re III Ltd. Series 2012-1, its first indemnity cat bond

- Travelers had previously sponsored two PCS-based transactions

Long Point Re III covers certain Travelers business units for Hurricanes in certain Northeast states

The subject business for the transaction includes the personal insurance segment as well as the select accounts and commercial accounts business units of the business insurance segment

- Business units which cover large and unique exposures, complex financial structures, and mobile property are excluded from the Subject Business
- Investors appreciated the "main street" nature of subject business

The Long Point Re III issuance was well-timed by Travelers:

- Significant US wind risk issuance exposed to Florida (the $750mm Everglades transaction), as well as other regions, gave investors an incentive to view Northeast Wind as a diversifying peril

The decision to approach the market with a straightforward transaction, both with respect to structure and collateral solution proved economical for Travelers
### Series 2012-1 Notes Class A Summary Terms

<table>
<thead>
<tr>
<th><strong>Ceding Company:</strong></th>
<th>The Travelers Indemnity Company (and several of its affiliates)</th>
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<tbody>
<tr>
<td><strong>Original Principal Amount:</strong></td>
<td>$250,000,000</td>
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<tr>
<td><strong>Initial Modeled Trigger Probability</strong>&lt;sup&gt;(a)&lt;/sup&gt;:</td>
<td>0.97%</td>
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<tr>
<td><strong>Initial Modeled Exhaustion Probability</strong>&lt;sup&gt;(a)&lt;/sup&gt;:</td>
<td>0.77%</td>
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<td><strong>Initial Modeled Expected Loss</strong>&lt;sup&gt;(a)&lt;/sup&gt;:</td>
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<td><strong>Modeling Firm:</strong></td>
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<td><strong>Risk Period:</strong></td>
<td>June 7, 2012 to June 7, 2015</td>
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<td><strong>Trigger:</strong></td>
<td>Indemnity, per occurrence</td>
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<td><strong>Covered Event:</strong></td>
<td>Hurricane</td>
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<td><strong>Covered Area:</strong></td>
<td>Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia</td>
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<td><strong>Rating (S&amp;P):</strong></td>
<td>BB+ sf</td>
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<td><strong>Collateral:</strong></td>
<td>Treasury Money Market Funds</td>
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<td><strong>Investor Spread:</strong></td>
<td>6.00%</td>
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</table>

<sup>(a)</sup> As estimated by AIR, sensitivity case (Warm Sea Surface Temperature Conditioned Catalog)
Risk Factors

* An investment in Insurance Linked Securities involves potentially significant risks for an investor. In summary, these risks include (but are not limited to):

- Investors may lose all or a portion of their investment in Insurance Linked Securities if a natural catastrophe or other event triggers a payment by the issuer of the Insurance Linked Securities under the underlying risk-transfer agreement that the Insurance Linked Securities relate to.
- The maturity of Insurance Linked Securities may be extended without the prior consent of the investor.
- The Insurance Linked Securities may be redeemed before their maturity date (including before any extension of such maturity date by the issuer).
- If the Insurance Linked Securities are redeemed before maturity, the interest rate payable under the Insurance Linked Securities will be reduced.
- Investors have limited recourse to assets of the issuer of the Insurance Linked Securities and no recourse to assets of the counterparties to the underlying risk-transfer agreements to which the Insurance Linked Securities relate.
- If the issuer of the Insurance Linked Securities becomes insolvent, investors may lose some or all of their investment.
- Investors may be required to consolidate the issuer for accounting purposes under certain circumstances.
- An investment in the Insurance Linked Securities may have adverse tax consequences for investors.
- Any claim you have against the issuer in the event of the issuer’s insolvency will rank below any claim a counterparty to the underlying risk-transfer agreements, to which the Insurance Linked Securities relate, has against the issuer.
- Enforcement of the security interest granted to a Trustee for the benefit of the investors may be limited.
- The Insurance Linked Securities may not have a secondary market or the secondary market for the Insurance Linked Securities may have limited liquidity; the market price of the Insurance Linked Securities in the secondary market may be highly volatile.
- The Rating Agency(ies) (if any) may change any rating assigned to the Insurance Linked Securities. Any credit rating given in respect of the Insurance Linked Securities may not reflect the potential impact of all risks related to the Insurance Linked Securities. A credit rating is not a recommendation to buy, sell or hold the Insurance Linked Securities and may be revised or withdrawn by the rating agency at any time.

The risk factors relating to an investment in Insurance Linked Securities are set out in detail in the offering materials for the relevant Insurance Linked Securities. Before entering into any financial transaction, you should ensure that you fully understand the terms, have evaluated the risks and determined that the transaction is appropriate for you in all respects.
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