



Insurance-Linked Securities

**2nd Conference of the OECD International Network on the Financial
Management of Large-scale Catastrophes
Bangkok, September 2009**

Markus Schmutz

Swiss Re Capital Markets



Agenda

- Recent Market Trends
- Key Economic Drivers
- Future Market Development



Recent Market Trends



2009 Cat Bond Market

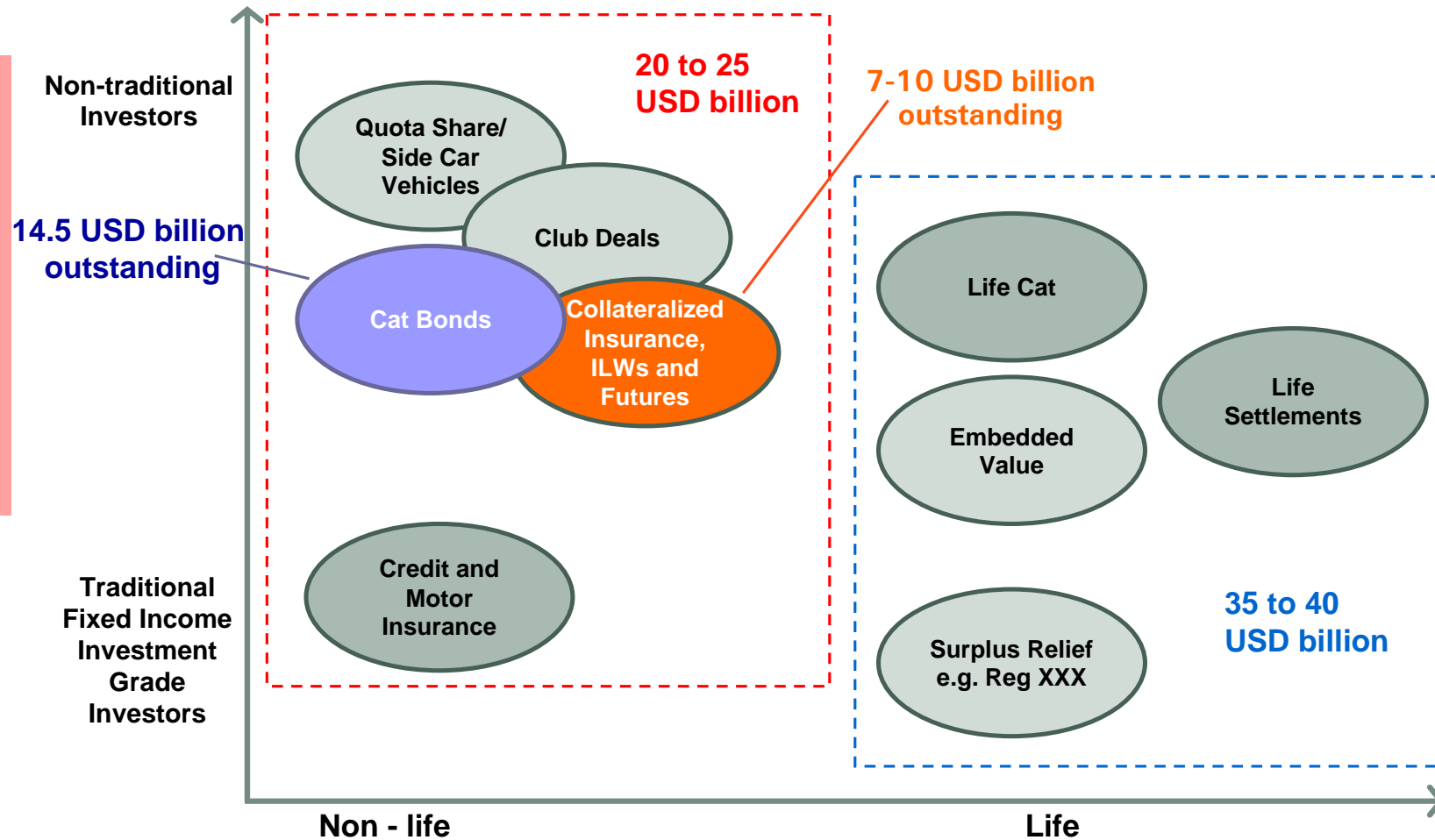
- Cat bond market has started 2009 well, particularly given broader market conditions
- Already 12 new issue transactions totaling over \$1.8 bn have been placed in the market
- The most recent transactions were upsized based on strong investor interest and closed below initial price indications
- Spreads are down 15 to 20% from peaks earlier this year and continue tightening both for primary issuances and in secondary trading
- Investor appetite is strong and new issue pipeline robust

Deal Name	Settlement Date	Notional (mm)	Trigger	Peril	Sponsor
Atlas Re V Class 1	2/19/2009	\$50.00	LAZR	Multiperil	SCOR
Atlas Re V Class 2	2/19/2009	\$100.00	LAZR	Multiperil	SCOR
Atlas Re V Class 3	2/19/2009	\$50.00	LAZR	Multiperil	SCOR
East Lane Re III Ltd	3/10/2009	\$150.00	Indemnity	US Wind	Chubb
Mystic Re II 2009 - 1	3/13/2009	\$225.00	Industry Index	Multiperil	Liberty Mutual
Sector III	3/31/2009	\$75.00	Indemnity	Multiperil	Swiss Re
Blue Fin II Class A	4/16/2009	\$180.00	Parametric Index	Multiperil	Allianz
Successor II Class F-IV	4/28/2009	\$60.00	Various	Multiperil	Swiss Re
Ibis Re Class A	5/5/2009	\$75.00	Industry Index	US Wind	Assurant
Ibis Re Class B	5/5/2009	\$75.00	Industry Index	US Wind	Assurant
Residential Re 2009 Class 1	5/28/2009	\$70.00	Indemnity	Multiperil	USAA
Residential Re 2009 Class 2	5/28/2009	\$60.00	Indemnity	Multiperil	USAA
Residential Re 2009 Class 4	5/28/2009	\$120.00	Indemnity	Multiperil	USAA
Ianus Capital	6/9/2009	€ 50.00	Various	Multiperil	Munich Re
Calabash Re III Class A1	6/10/2009	\$86.00	MITT	Multiperil	ACE
Calabash Re III Class B1	6/10/2009	\$14.00	MITT	US EQ	ACE
Parkton Re	7/28/2009	\$200.00	Indemnity	NC Wind	NC JUA/IUA
Eurus II	7/29/2009	€ 150.00	Parametric Index	EU Wind	Hannover Re
		\$1,871.80			



Market Segmentation and Size

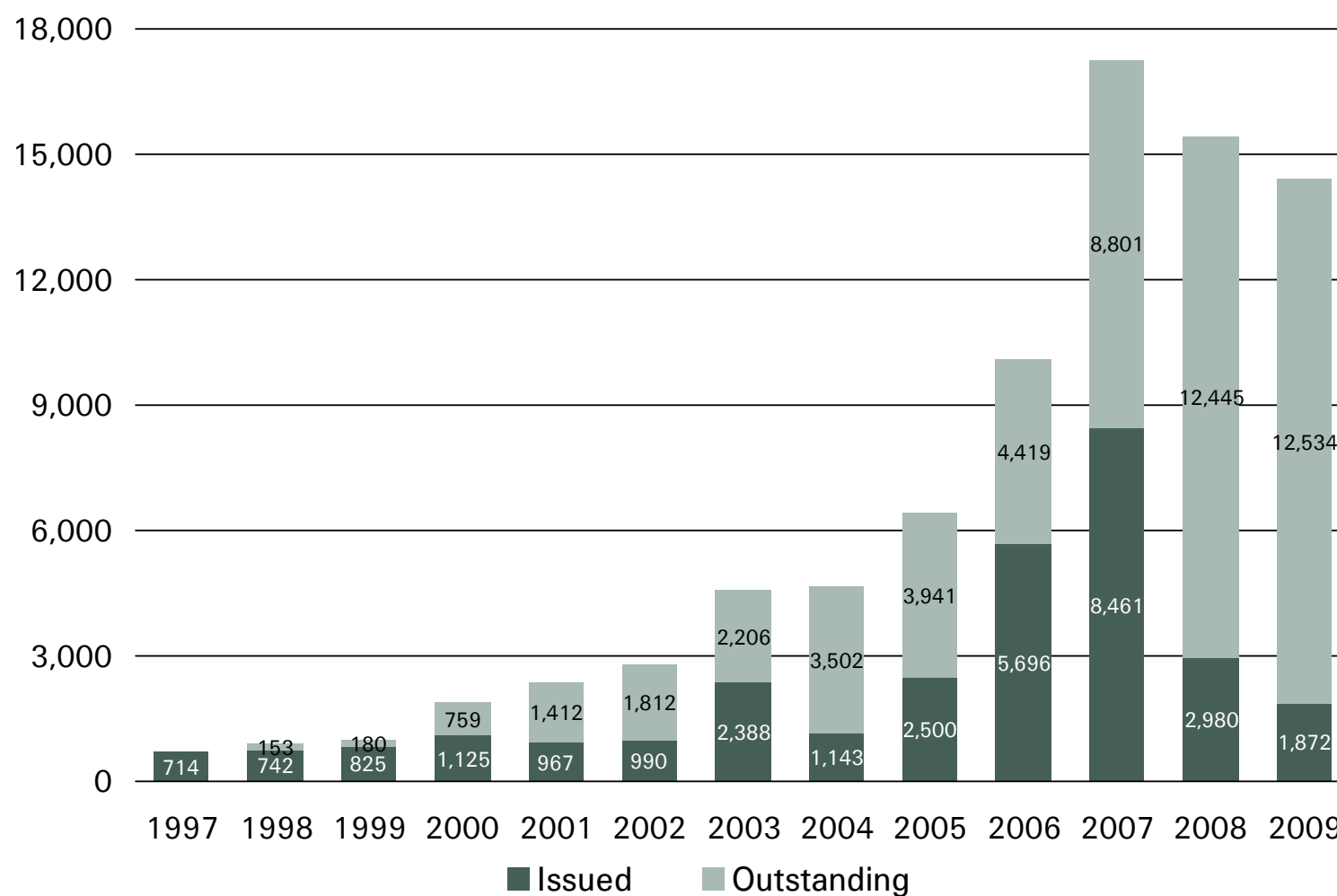
Total ILS capacity being provided directly by the capital markets in varying formats is estimated around \$50 billion of which approximately \$20 billion represents natural catastrophe risk.





ILS market update

Cat bonds outstanding, by year





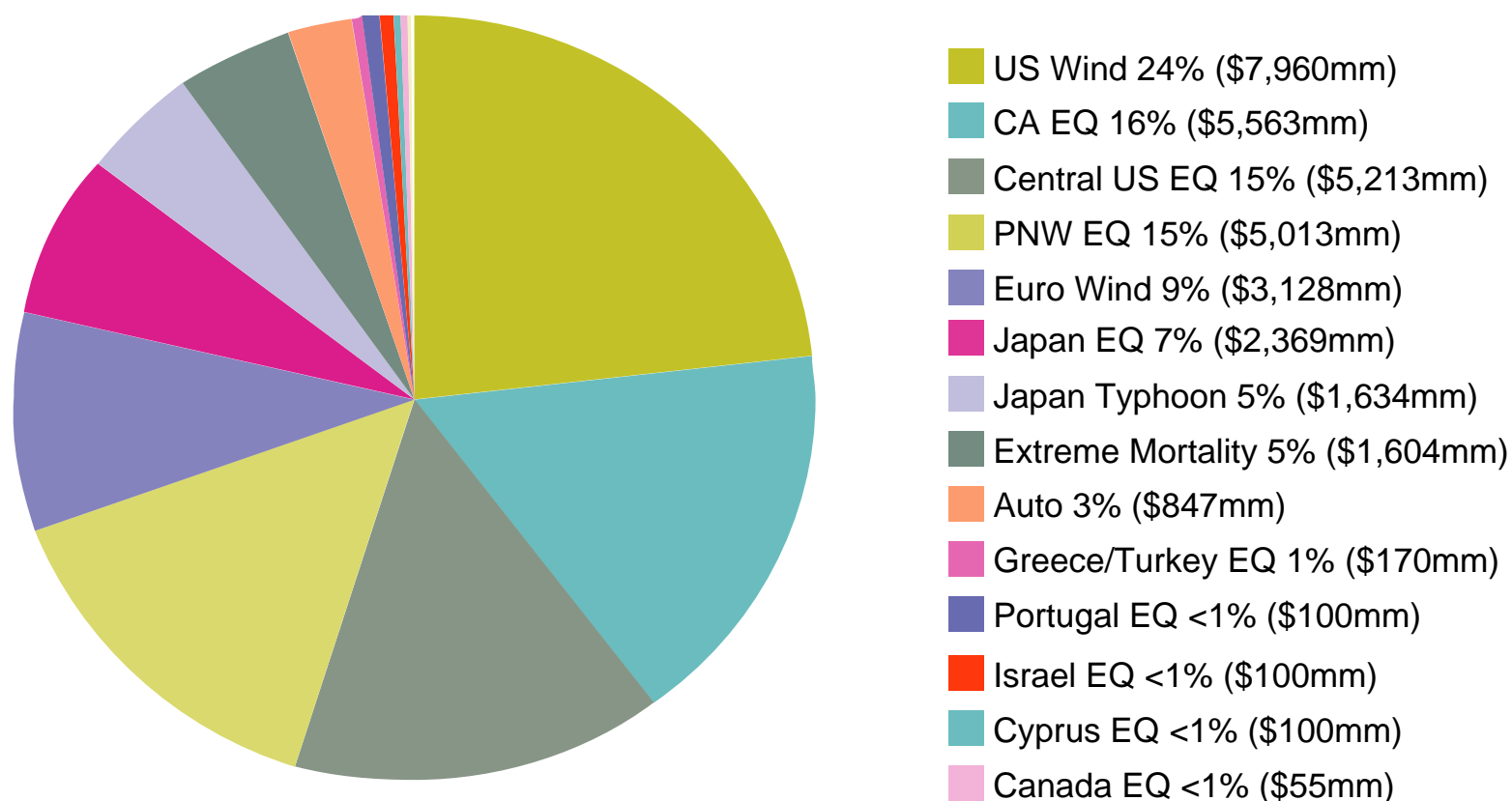
Overview of Cat Bond Collateralization Alternatives

- Several solutions to the collateral issues raised by the Lehman bankruptcy have gained acceptance in the market Treasury Money Market Funds

Customized puttable notes by government-backed issuers (IBRD, KfW, etc)	<ul style="list-style-type: none"> • Match ILS maturity and coupon payment dates • Redeemable at par on a quarterly basis
Treasury Money Market Funds	<ul style="list-style-type: none"> • Stable value and secure
Government-guaranteed bank debt with Total Return Swap	<ul style="list-style-type: none"> • Government guarantee provides security • TLGP legislation expires in 2012
Tri-party daily repo structure	<ul style="list-style-type: none"> • Similar setup to total return swap but with more frequent asset valuations, top-ups and concentration limits • Relies heavily on secondary market trading and liquidity. • Concerns about correlation with credit of Repo Counterparty
Bank CDs with AAA/AA banks	<ul style="list-style-type: none"> • Simple and replicate TRS payments • Unsecured and exposed to bank risk

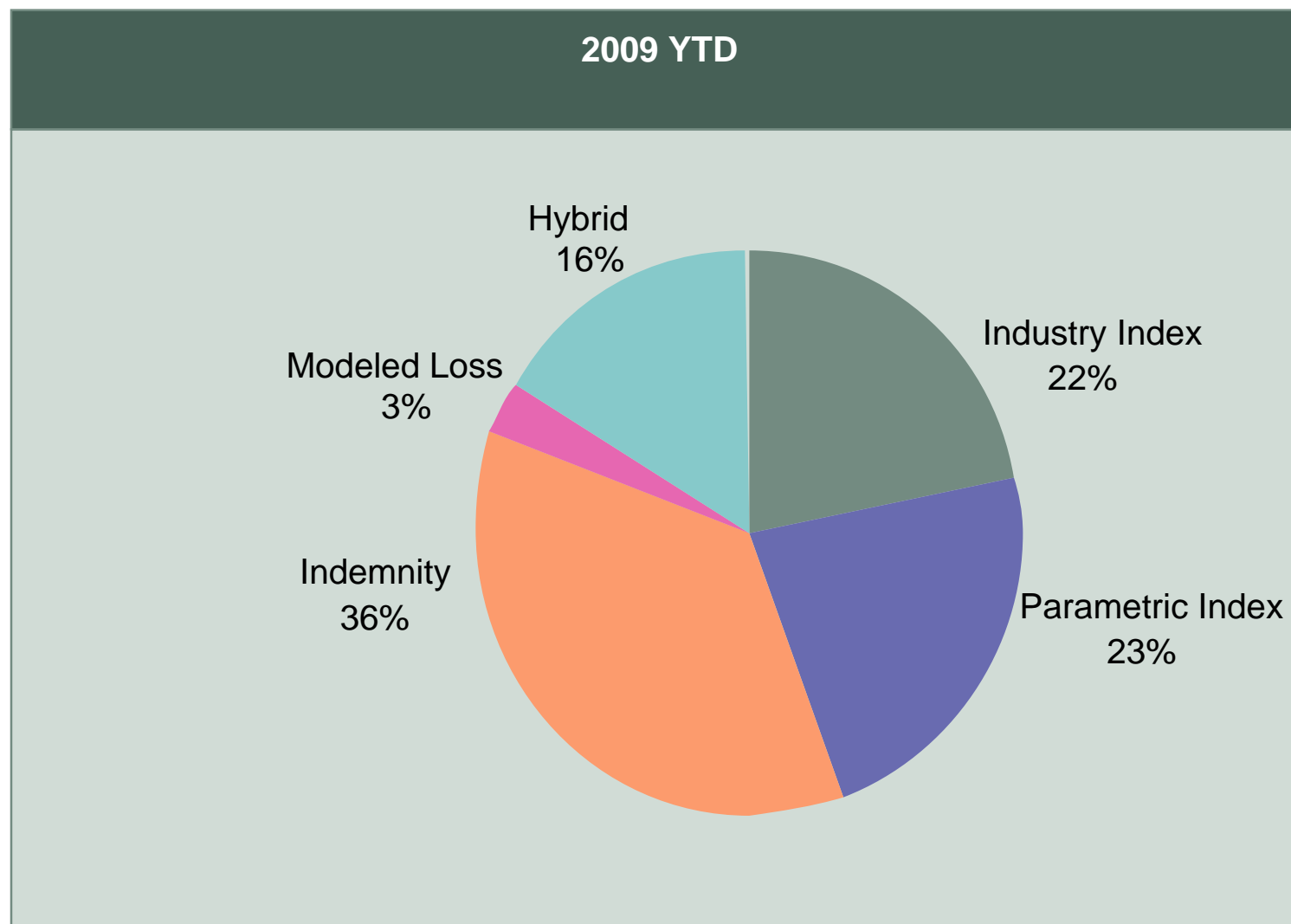


Currently Deployed Capacity by Peril





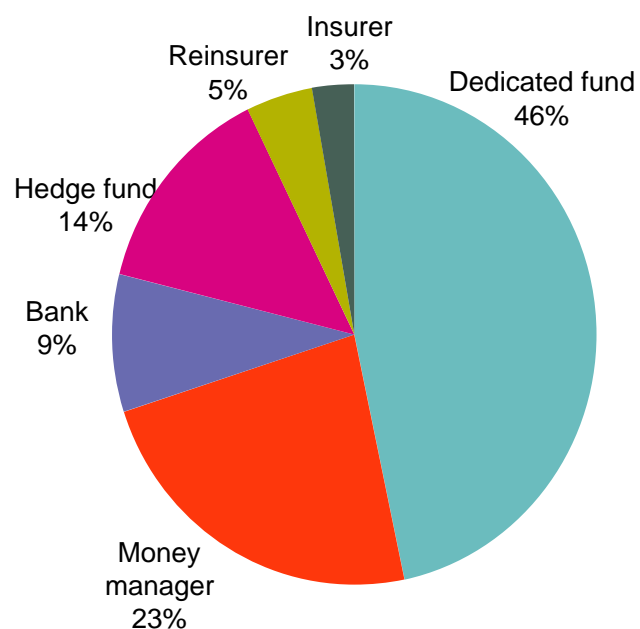
Catastrophe Bond Trigger Breakdown



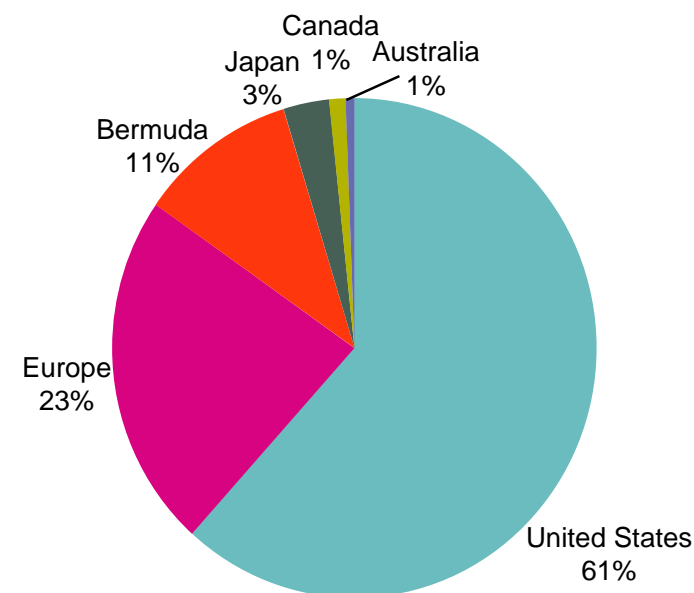


Investor Base - Dominated by Capital Markets Investors

Segmentation by type



Segmentation by region

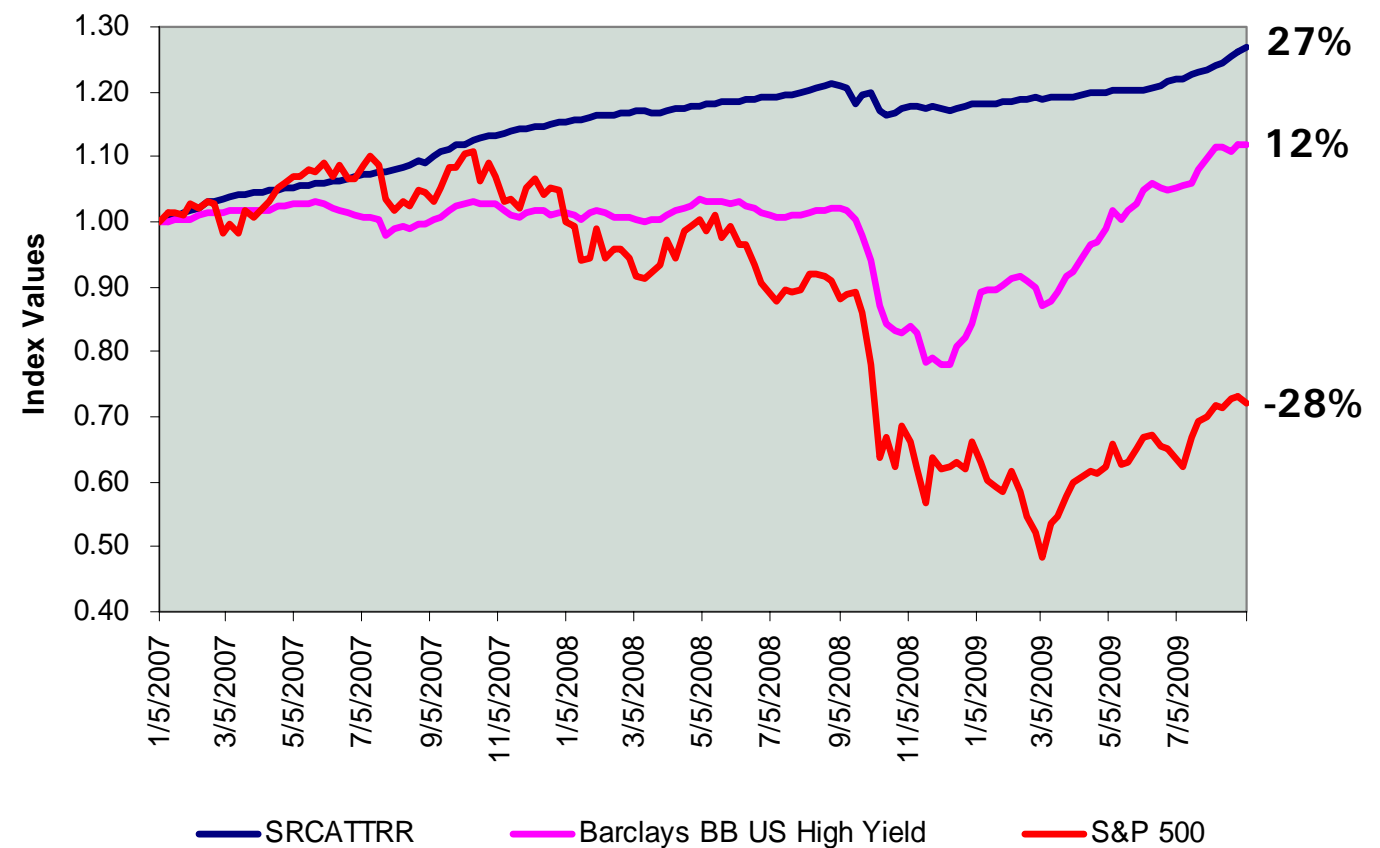


- Hedge funds that solely focus on ILS are dominating the sector and continue to raise capital despite the turmoil in the broader financial markets
- Money managers and pension funds continue to see value in the diversifying aspects of ILS



Cumulative Return

High Yield Performance from 1 January 2007 – 1 September 2009



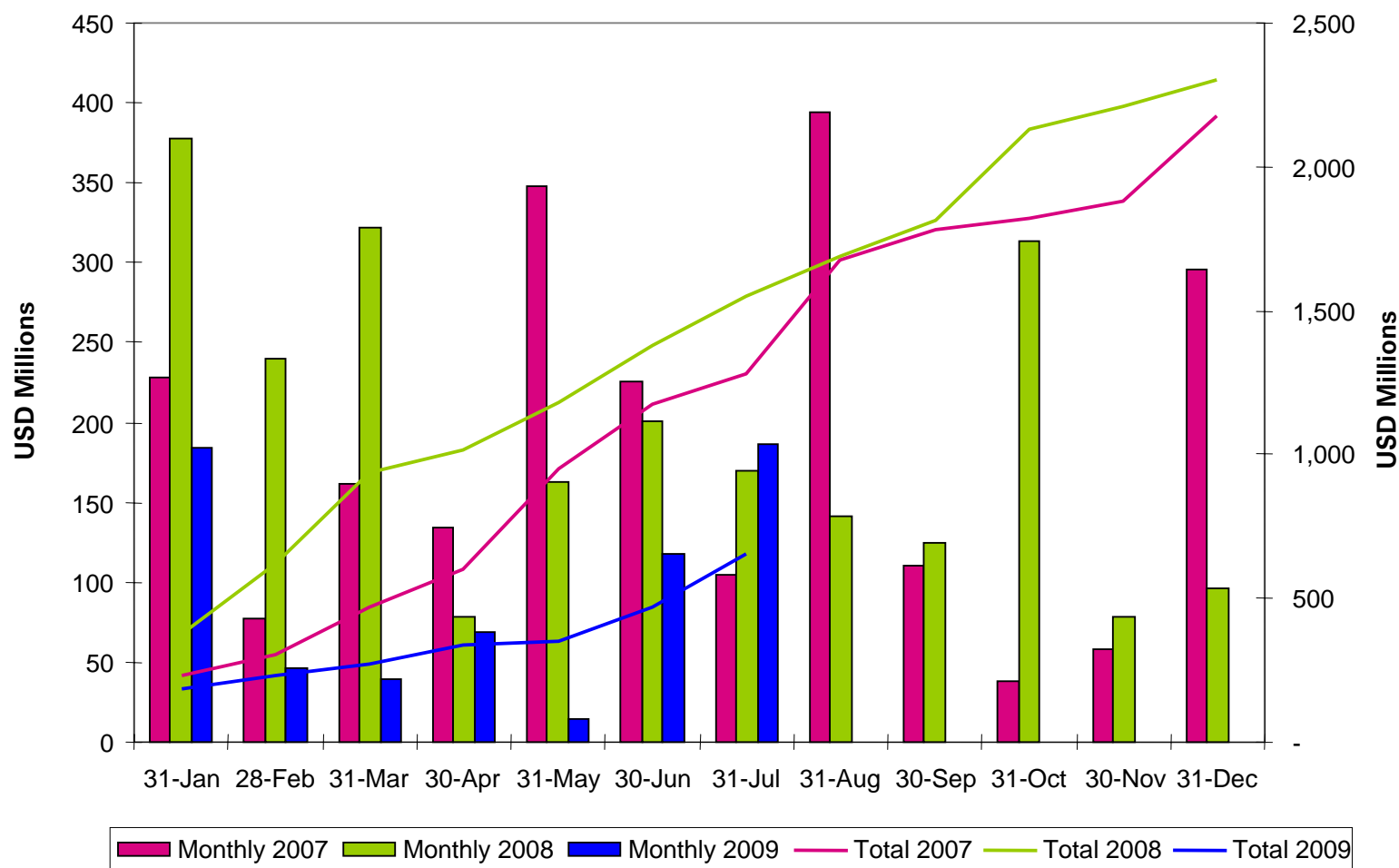
"Swiss Re Cat Bond Index Total Return", calculated by Swiss Re Capital Markets, is a market value-weighted basket of nat cat bonds tracked by Swiss Re Capital Markets, calculated on a weekly basis; past performance is no guarantee of future results
Underlying data for Barclays Capital High Yield Index provided by Barclays Capital
Underlying data for "Swiss Re Cat Bond Index Total Return" is based on indicative prices only



Secondary Trading

Swiss Re traded approximately \$655 million from 1 January 2009 – 31 July 2009

- Swiss Re estimates it has a 30% share of the ILS trading market
- ILS market has remained liquid during recent turmoil and has provided liquidity for hedge funds facing margin calls





Key Economic Drivers



Sponsor Perspective

- **Additional Capacity**
 - Access to new sources of capacity
 - Potential to cover risks that are difficult to cover in traditional re/insurance
- **Collateral**
 - Reduce/eliminate counterparty credit risk
 - Particularly relevant for large programs and peak perils
- **Settlement Speed (index-based transactions)**
 - No claims development period
 - Use of the cash immediately after the event
- **Multi-year**
 - Smoothing of cost of cover over the years
 - Rolling renewals of parts of the cover
- **Certainty of Payment**
 - Formulaic payout reduces potential for coverage disputes
- **Basis Risk**
 - Match between index-based transaction and actual losses
- **Cost**
 - Cost comparison between solutions depends on how much value is assigned to each of the various features above



Investor Perspective

- Diversification/Non-Correlation
- Relative Value
- No Counterparty Credit Risk
- Moral Hazard and Mitigants
 - Underwriting and Claims Settlement in Indemnity Transactions



Future Market Development



Sponsor Concerns

■ Minimize Basis Risk

- Improve granularity of available indices to provide more degrees of freedom when replicating a particular portfolio
- Improve reporting networks for parametric triggers (report local intensity data)
- Develop new market loss indices (e.g. PERILS)

■ Regulatory/Rating Agency Treatment

- Appropriate credit for risk transfer
- Substance over form (Solvency II)
- Take into account counterparty credit risk in risk transfer transactions



Investor Aspects

■ Pricing

- Spreads historically have been wider than what would be expected for an asset with low correlation to the rest of the financial markets

■ Deal Flow, Size of Market

- A larger market will likely attract more investors, which should result in more competition and lower spreads

■ Standardization vs Diversification

- More standardization would make it easier to analyze transactions and may also increase liquidity
- At the same time, many investors are also looking to diversify their exposures within ILS (varying trigger mechanisms, regional concentrations, business lines, etc)