

# **Discussion of the Insurance-Linked Securities Market for Terrorism Coverage**

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**Presented at a meeting of the Advisory Committee on Risk-Sharing Mechanisms (ACRSM) by John Seo**

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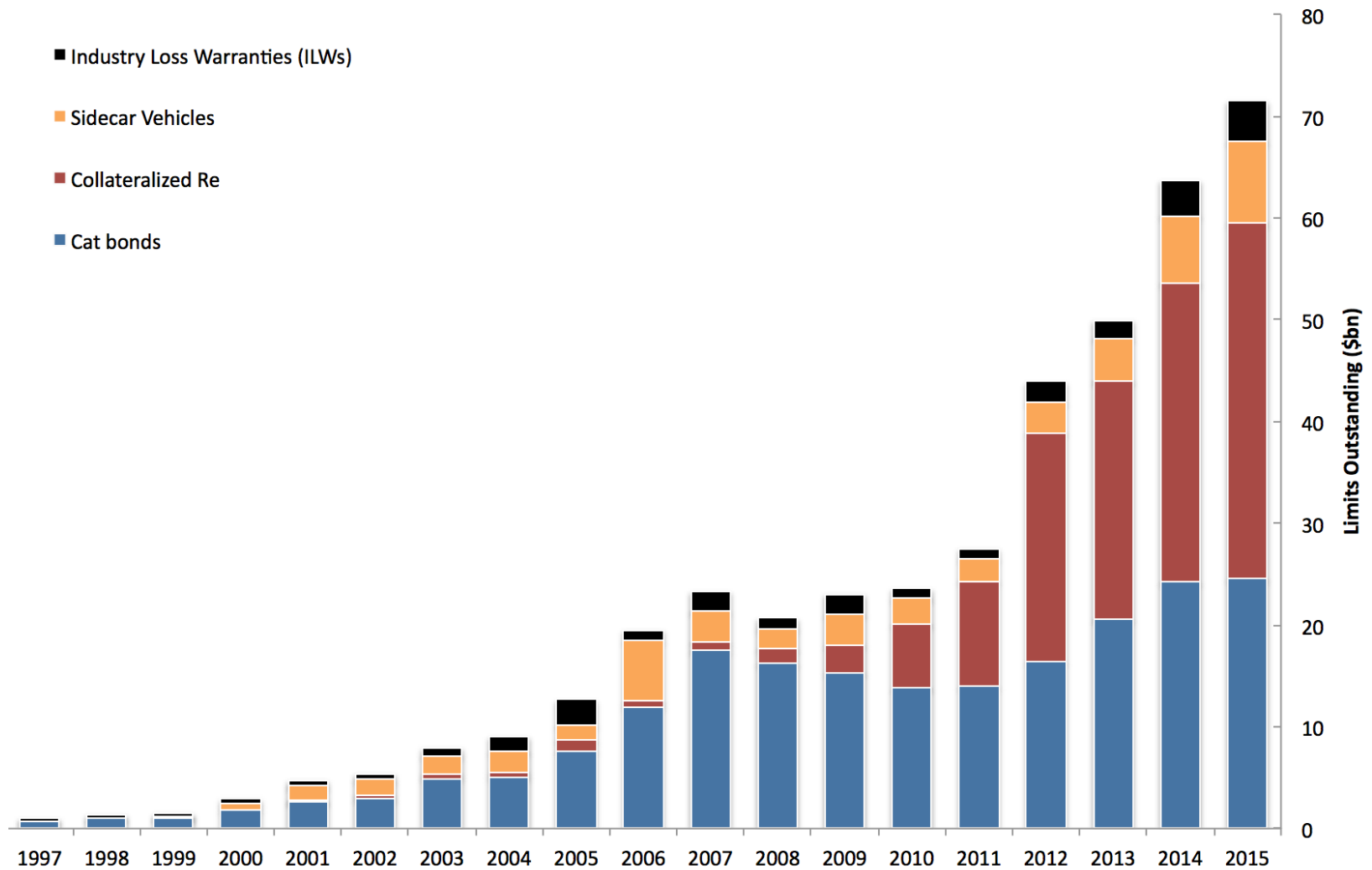
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- I. ILS MARKET SNAPSHOT
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# I. ILS MARKET SNAPSHOT

- ILS MARKET GROWTH
- CAT BOND ISSUER MIX
- CAT BOND INVESTOR MIX

# ILS MARKET GROWTH



Source: Fermat Capital, Guy Carpenter, Aon Benfield, Trading Risk Magazine and Artemis.bm. Data as of 31 December 2015.

- 7 out of the top 10 US insurance companies
- 7 out of the top 10 global reinsurers
- 3 of the top 3 government catastrophe pools worldwide\*
  - Florida Citizens (70% of insured residential risk “on the beach” in South Florida)
  - California Earthquake Authority (70% of insured residential risk in California)
  - Turkish Catastrophe Insurance Pool (100% of insured residential risk in Turkey)
- 55 sponsors:
  - 42 Insurers /11 Reinsurers/ 2 Corporates
  - 14 of 55 issuers are governmental entities
  - 5 first-time issuers in 2015

- Majority of investors are outside of the U.S., though U.S. investors have been active since the beginning of the cat bond market and remain strong with promising future growth.
- Significant presence of global top 20 national pension funds and sovereign wealth funds.
- Growing participation from ultra-high net worth and multi-family offices, private wealth investment advisors, charities, small-to-medium pension, endowment and insurance companies.
- Typical cat bond allocations, when they occur, are 1–4% of total assets under management (AUM), with 1–2% of AUM the most typical.
- ~25 core investment managers (most often specialist ILS managers) manage ~75% of the cat bond market. ~125 non-core investment managers (e.g., life insurers, fixed income mutual funds, endowments) manage the remaining ~25% of the cat bond market.
- These ~150 investment managers represent thousands of end investors through mutual funds and tens of millions of pension fund members through separately managed accounts.

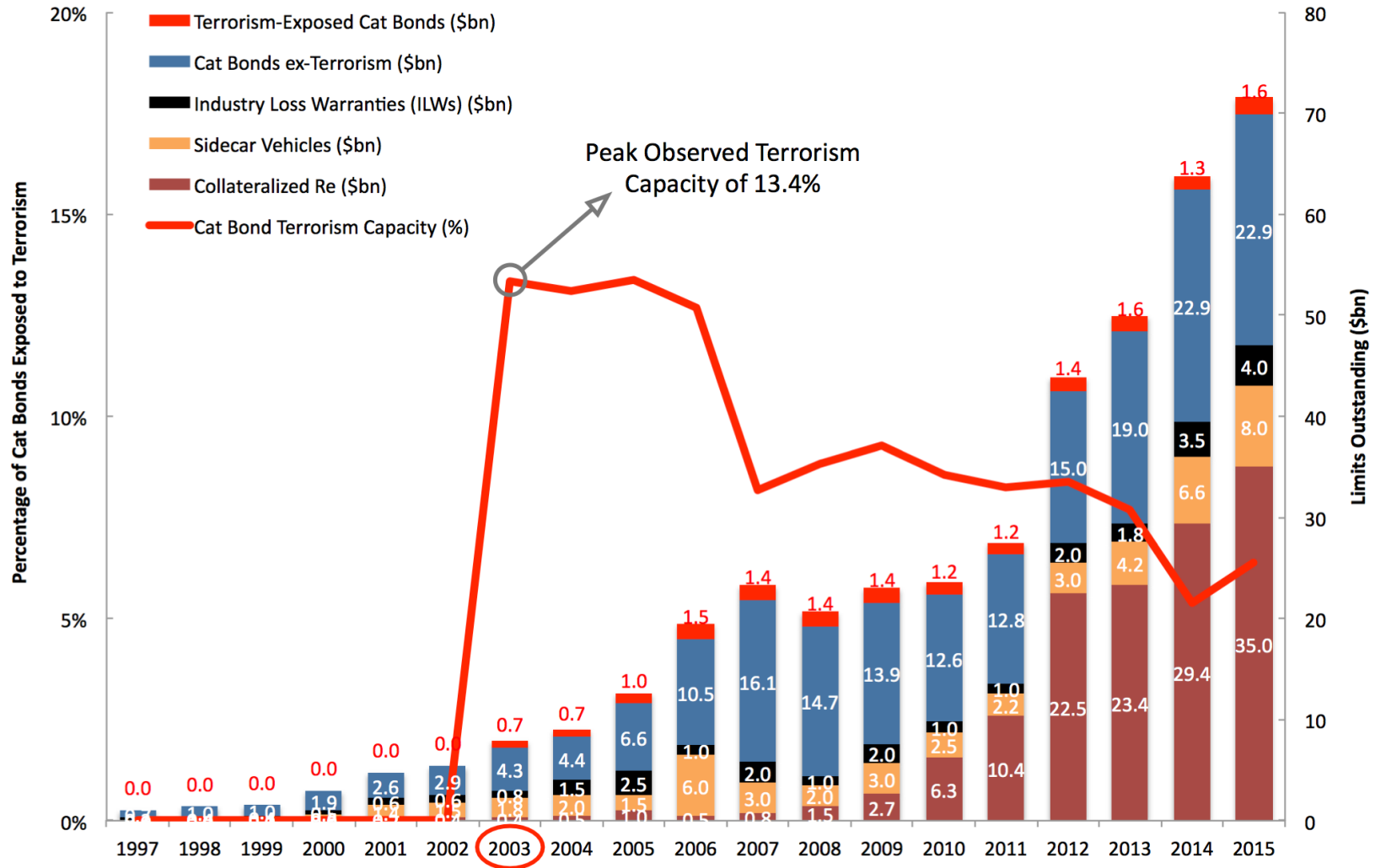
## **II. ESTIMATE OF ILS MARKET TERRORISM CAPACITY**

- CAT BONDS EXPOSED TO TERRORISM RISK
- OBSERVED CAT BOND TERRORISM CAPACITY
- ESTIMATE OF ILS MARKET TERRORISM CAPACITY

- Golden Goal Ltd. US\$260 million in business interruption coverage for FIFA's 2006 World Cup. Issued October 2003. Matured October 2006. Libor + 1.50% coupon.
  - = Terrorism was the major consideration in this bond.
  - = Other natural perils were included in the coverage as well.
  - = Brought to market only 2 years after 9/11.
  - = No renewal as traditional market capacity responded.
  
- Extreme mortality/morbidity bonds. General class of cat bonds, providing coverage to life reinsurers/health insurers for extreme mortality/morbidity developments in countries such as the US, UK, Germany, France, Italy, Switzerland, Japan, Canada and Australia. Average Coupon 3mo Treasuries + 3.18% (outstanding bonds as of 1 June 2016).
  - = Terrorism is a minor consideration in these bonds; however,...
  - = Terrorism risk is explicitly stated and frequently modelled in the offering circular.
  - = First brought to market only 2 years after 9/11.
  - = Commonly renewed as a complement to traditional market capacity.



# OBSERVED CAT BOND TERRORISM CAPACITY



Source: Fermat Capital, Guy Carpenter, Aon Benfield, Trading Risk Magazine and Artemis.bm. Data as of 31 December 2015.

- Two, main assumptions used for estimate:
  - = ILS market ex-cat bonds are at least as accepting of terrorism exposure as the cat bond market.
  - = Fermat Capital's capacity for explicit terrorism risk is similar to the aggregate of investors in the cat bond market.
- Summary of observations:
  - = Cat bond terrorism exposure observed at ~5 to 13% of outstanding bonds.
  - = Fermat Capital has additional capacity of 5% of AuM for explicit terrorism risk.
  - = ILS market size is currently ~\$70 bn.
- Estimate of current ILS market terrorism capacity:
  - = ~\$3.5 to 9 bn of capacity for terrorism exposure.
  - = ~\$3.5 bn of additional capacity for explicit terrorism exposure.